HOW TO GET THE NOISE OUT OF YOUR HI-FI SYSTEM
PAST, PRESENT, AND FUTURE OF LEONARD BERNSTEIN
SHOULDERING A GREAT TRADITION: ITZY AND PINKY
Four new and completely different AM-FM stereo receivers with increased performance, greater power, unsurpassed precision and total versatility.

SX-525 AM-FM STEREO RECEIVER — 72 WATTS IHF

SX-626 AM-FM STEREO RECEIVER — 110 WATTS IHF
Pioneer has more power.

SX-727 AM-FM STEREO RECEIVER — 195 WATTS IHF

SX-828 AM-FM STEREO RECEIVER — 270 WATTS IHF
Experts agree...

Long before the current wave of consumerism, Pioneer had established its reputation for superior quality craftsmanship. This reputation has been continuously augmented by our commitment to building high fidelity components with a measurable extra margin of value. Our four new receivers—SX-828, SX-727, SX-626, SX-525—are designed to meet a wide range of requirements and budgets. Yet each unit incorporates a significant array of features and refinements built into the top new model—the SX-828. Regardless which new Pioneer receiver you finally select, you are assured it represents the finest at its price.

More meaningful power.
When it comes to power, each model provides the most watts for your money. This is meaningful power. Power that is consistent throughout the 20-20,000 Hz bandwidth (not just when measured at 1,000 Hz.) Especially noticeable at the low end of the spectrum with improved bass response, the overall effect is greater frequency response and low, low distortion.

You can't expect great music without great specifications.

Pioneer's reputation for high performance capability is thoroughly reinforced in these four receivers. Listening to them substantiates it; the specifications tell the reasons why. Since Field Effect Transistors increase sensitivity, they're incorporated into the FM tuner section of each unit. For example, the SX-828 uses 4 FET's. You get greater selectivity and capture ratio with Integrated Circuits and Ceramic Filters in the IF stage. Here's a mini spec list:

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<tr>
<th>Model</th>
<th>IHF Music Power</th>
<th>RMS @ 8 ohms</th>
<th>Both channels driven @ 1KHz</th>
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<td>SX-525</td>
<td>72 watts</td>
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Direct-coupled amplifier circuitry and twin power supplies improve responses.

Of course, having power to spare is important; but directing it for maximum performance is even more vital. In the SX-828 and SX-727, you will find direct-coupled circuitry in the power amplifier combined with two separate power supplies to maintain consistent high power output with positive stability. This means transient, damping and frequency responses are enhanced, while distortion is minimized. In fact, it's less than 0.5% across the 20-20,000 Hz. bandwidth.

Ultra wide linear FM dial scale takes the squint out of tuning.

Exclusive protector circuit for speakers.
Another example of Pioneer's advanced engineering is the automatic electronic trigger relay system designed into the SX-828 and SX-727. Since the signal is transmitted directly to the speakers because of the direct-coupled amplifier, this fail-safe circuit protects your speakers against damage and DC leakage, which can cause distortion. It also guards against short circuits in the power transistors. It's absolutely foolproof.

Inputs and outputs for every purpose including 4-channel sound.

Depending on your listening interests and desire to experiment in sound, each receiver provides terminals for a wide range of program sources.

**Outputs:**

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<th>Model</th>
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<td>72 watts</td>
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Speakers 3 3 3 2
Headsets 2 1 1 1
Tape Rec. 2 2 2 2

Someday, if you want 4-channel sound, all models have 2 inputs and 2 outputs to accommodate a unit such as Pioneer's GL-600 Quadralizer Amplifier. With it, and two additional speakers, perfect 4-channel sound is simply achieved.

Versatile features increase your listening enjoyment.

Our engineers have outdone themselves with a host of easy-to-use features. All four units include: loudness contour, FM muting, mode lights, click stop bass/treble tone controls with oversize knurled knobs, and an ultra wide linear FM dial scale that takes the squint out of tuning. Except for the SX-525, they all employ high and low filters. Enlarged signal strength meters make tuning easier than ever. Center tuning meters are included as well in the SX-828 and SX-727. Further sophistication is offered on the top two models with a 20dB audio muting switch — the perfect answer to controlling background music. As the senior member of the family, the SX-828 is endowed with speaker indicator lights (A,B,C,A+B,A+C) and a tuning dial dimmer for creating a more intimate lighting atmosphere.

Some day other stereo receivers will strive for this total combination of power, performance, features, precision and versatility. Why wait? Pioneer has more of everything now.

See and hear these magnificent receivers at your local Pioneer dealer. SX-828—$429.95; SX-727—$349.95; SX-626—$279.95; SX-525—$239.95

Prices include walnut cabinets.

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178 Commerce Road, Carlstadt,
New Jersey 07072
West: 13300 S. Estrella Ave.,
Los Angeles, Calif. 90048
Canada: S. H. Parker Co., Ontario

Pioneer when you want something better

MAY 1972
For years, Zero Tracking Error has been the elusive goal of the automatic turntable maker. The objective: to develop an arm which would keep the stylus perpendicularly tangent to the grooves...to each groove throughout the record, because this is the way music is put on a record.

Garrard's Zero 100 is the only automatic turntable to attain this. It is done with an ingeniously simple, but superbly engineered tone arm. Through the use of an articulating auxiliary arm, with precision pivots, the angle of the cartridge continually adjusts as it moves across the record. The stylus is kept at a 90° tangent to the grooves...and the cartridge provides the ultimate performance designed into it.

They have confirmed that they can hear the difference that Zero Tracking Error makes in the sound, when the Zero 100 is tested against other top model turntables, in otherwise identical systems. Until now, we cannot recall any turntable feature being credited with a direct audible effect on sound reproduction. Usually that is reserved for the cartridge or other components in a sound system.

Zero Tracking Error is more than just a technical breakthrough. It translates into significantly truer reproduction, reduced distortion and longer record life.

Once we had achieved Zero Tracking Error, we made certain that the other features of this turntable were equally advanced. The Zero 100 has a combination of features you won't find in any other automatic turntable. These include variable speed control; illuminated strobe; magnetic anti-skating; viscous-damped cueing; 15° vertical tracking adjustment, the patented Garrard Synchro-Lab synchronous motor; and our exclusive two-point record support in automatic play.

The test reports by independent reviewers make fascinating reading. You can have them, plus a detailed 12-page brochure on the Zero 100. Write today to British Industries Co., Dept. E32, Westbury, New York 11590.

**GARRARD ZERO 100**

The only automatic turntable with Zero Tracking Error.

**$189.50**

less base and cartridge
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A PREVALENCE OF CATSUP

Stereo Review is a journal of opinion, and it incurs thereby some slight obligation to provide its readers with an opportunity to publicly challenge those opinions. And that is why we have a letters column, a pressure valve that permits readers to participate actively in a magazine that is, in some sense, their own, to twist about our errors, to share an interesting piece of information, to propagate for their own particular interests and viewpoints, to complain to city hall, and even, occasionally, to congratulate one of our writers for a job well done. Much of the correspondence we print (unfortunately, we don’t have room for it all) inevitably deals with recurrent real problems—disc quality, availability of recordings, etc.—but there is also another level, a kind of ponderous pedal point beneath all this, that is concerned with abstract aesthetic, philosophical, and even moral issues. One of the most persistent—and least understood—of these has recently rolled around for another of its cyclic peaks (three or four letters in the space of one week), and at least one writer expressed himself with a blunt eloquence I would like to share:

"... What bugs me most about the success of people like Grand Funk Railroad and the Carpenters and the Partridge Family is the fact that artists like the old, old blues musicians, who have real genius gleaned from years of hard living and dues paying... are still struggling for recognition. These people have had more influence on the development of our contemporary music than the effortless, superficial, inconsequential fluff of the Carpenters—yet how many great bluesmen are shining shoes and sweeping floors?"

To answer the question first—quite a few, probably. But as for the implication that there is a terrible injustice being perpetrated here by person or persons unknown, I can only say nonsense. Critics regularly berate the public for its poor taste, and I of some of the tasteful public just as regularly accuse the critics of giving aid and comfort to the bland copy-cats, the denatured and soulless derivatives of the great and gutsy originals. These are valid sympathies, but they have been led illegitimately astray. What professional critics and non-professional tastemakers forget is that we live in the middle of an electronic wonderland of fearful complexity and ubiquity. The clatter of a pin dropping in farthest Van Diemen’s Land could conceivably attain world-wide fame and popularity if it happened to coincide with the public’s aural appetite at the moment of its fall. The sound of the old blues musicians is almost preposterously easy to come by for those who really want to hear it, but the public turns instead, with what to some seems an exasperating perversity, to its Carpenters and the Partridge Family.

It may be natural to see in this the plotings, machinations, and manipulations of the evil geniuses of the music and record business, the sly hands of flacks, agents, and PR men at work, but that gives them more than their due. All the evidence I’ve ever seen indicates to me that the natural condition of man is torpor. He is at his most active when looking for labor-saving devices, and when he dreams of paradise he sees himself lazing on his back in Eden, Schlarafienland, Cockaigne, or the Big Rock-Candy Mountains. His laziness is pervasive, extending to mental as well as physical effort, from the soul to the belly. He even finds it difficult to exert himself peaks (three or four letters in the space of one week), and at least one writer expressed himself with a blunt eloquence I would like to share:

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HIS BARK IS BIGGER THAN HIS BITE

Any two way system worth its keep has an 8" woofer.
So when yours has a 10" woofer and sells for only $75, there's really something to bark about.

Meet Jensen's brand new Model 3 Speaker System.

The two way with the big woof and the 3½" direct radiating tweeter. Model 3 makes the most of its size, by incorporating Jensen's new Total Energy Response design concept in each speaker. Total Energy Response brings out a fuller, richer sound. And produces a unique musical balance throughout a listening area.

It creates specifications like these:
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- Frequency Range—36-20,000 Hz.
- Crossover—800 Hz.
- Dispersion—150°

Model 3 also features a four layer woofer coil. And a Tuned Isolation Chamber on the tweeter.

Every good system should look as good as it sounds. Model 3 comes in a hand rubbed walnut cabinet, finished on four sides. Ask your hi-fi dealer for a demonstration. It's a lot of bark, for only a little scratch.

Model 3 Speaker System.

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CIRCLE NO. 26 ON READER SERVICE CARD

MAY 1972
LETTERS TO THE EDITOR

The Great Tape Robbery

- I have a footnote to Craig Stark's fine ethics article ("The Great Tape Robbery," March). I can think of one other situation where, for me at least, the Practical Consideration usually gets the better of the Ethical Question. Let us assume that I have been collecting Toscanini records for many years, and would like very much to acquire his performance of the Coriolan Overture. I find, though, that this item is currently available only as part of an eight-record, twenty-four dollar set, five or six records of which would duplicate performances I already have. In this case, my sense of the impracticality of paying twenty-four dollars for one five-minute piece is strengthened by the fact that I have done my duty to RCA and the Toscanini performances in this collection on earlier occasions. Considering the industry's current fondness for coupling reissues in new combinations, and in some cases mixing new recordings and reissues on the same record, the frequency of such dilemmas as I describe is not surprising.

HARRY WELLS MCCRAW
Hattiesburg, Miss.

- The points William Anderson made in his editorial on the ethics of home taping ("Editorially Speaking," March) are all so true, but has he tried to buy prerecorded reel-to-reel tapes lately? Last year I ordered forty-one tapes by mail, and received a mere eight.

PUNN SHIGLEY
Rockford, Ill.

Fragmentation of Rock

- Although Joel Vance raised the question of why rock music is fragmenting in your February issue, and then neglected it for five silly pages. To hit a few of the high spots, let me point out that the idea that rock musicians (to use the term loosely) are by and large excellent—or even good—technicians is so silly that I'm surprised anyone would print it, except possibly Rolling Stone. One of the things that has always distinguished rock music is that the musicians are limited to about five notes on their instruments, whether voice or guitar; rock drummers, with extremely few exceptions, have never mastered the basics taught to high school bands. And unfortunately, the richness of the Beatles' songs was supplied by George Martin, not the Beatles, as witness the terrible jerk that the individual Beatles are cranking out now.

Perhaps Mr. Vance was using creativity as his measuring stick when he wrote his article, though it is not evident from the text. If so, his material is meager—Bob Dylan, Joni Mitchell, and Paul Simon are the only (semi-) posts that come to mind, and no poetry student takes even them seriously. Musical creativity, by any standard, has been achieved so seldom in rock as almost to be lost in the shuffle—Simon and Garfunkel, Van Dyke Parks, maybe Neil Diamond, and occasionally the Beatles, the Beach Boys, and Buffalo Springfield have created fine music, but so meagerly that their skill cannot begin to be compared in quality to someone like Nina Simone. As a consistent rock listener, I wish what Mr. Vance said was true, but it's really just ridiculous.

BRIAN PATTERSON
Bristol, N.H.

Sinatra

- The trouble with Frank Sinatra was not that he couldn't sing Dichterliebe, but that he couldn't sing anything. In his reply to Robert Reiff's letter ("Letters to the Editor," February), Henry Pleasants recommends that his readers start listening to Sinatra. I listened recently, and what I heard was a man with no singing voice who didn't even know how to try to sing, and who seemed unable to vocalize a popular song without spoiling it with amateurish ignorance of how to express its sentiments. In his article on Sinatra in the November issue, Mr. Pleasants mentioned a number of other popular vocalists who, like Sinatra, lacked singing voices, and whose efforts to sing popular songs were in some cases ludicrous, but he failed to mention any one of a score of very good tenors and baritones who, during the past thirty years, sang popular music exclusively and sang it very well.

GEORGE R. WEAVER
St. Petersburg, Fla.

Mr. Pleasants replies: "I expended some 3,000 words to achieve an inevitably inadequate portrait of Sinatra as a singer. Here we have in under 150 words a wonderfully adequate self-portrait of Mr. Weaver as a listener. All that's missing are the names of those baritones and tenors."

A Matter of Balance

- Very little has been said about the major fault present in recordings of vocal-orchestral works and concertos. This is the over-pronunciation given to soloists in virtually all concerto recordings, and in eighty percent of the opera recordings I have heard. If the volume is set at the proper level during the overture, the entry of the soloist is overpoweringly loud; an example is the DG/Das Rheinland record. The effect of most concerto recordings puts the listener in the second balcony with the piano two rows in front of him and the orchestra on the stage. Good examples of this are the Columbia Serkin-Ormandy Brahms First, the Columbia Fincher-Szell Beethoven Fifth, and worst of all, the London Phase Four Rachmaninoff Second, played by Ivan Davis and Henry Lewis. This recording was reviewed as 'Best of the Month' in November, and Lester Trumble made reference to the "beautiful orchestral sound. I could not tell. The initial statement of the first-movement themes in the orchestra was obscured by what should have been subordinate phrases of the piano accompaniment."

I do not know if the source of the problem is the sales department, the producer, or the soloist, but it might help if reviews would call critical attention to this more often, using phrases such as "the soloists are overblown" instead of the common "the soloists are nicely forward."

STEPHEN F. OWENS
Brooklyn, N.Y.

The Music Editor replies: "The tradition of overbalancing a recording in favor of the soloist, as opposed to the balance normally encountered in the concert hall or opera house, is an old and honored one. There are two main reasons for it: (1) the soloist is, by and large, what the consumer is paying for, and if he or she cannot be heard at virtually every moment, the average consumer feels cheated; and (2) the visual element, which helps attract attention to the soloist in the concert hall, is absent on recordings, and the soloist must be made prominent to make up for this. It is not hard to see that (Continued on page 8)"
KENWOOD KR-7070A
300-WATT (IHF) • 3-FET • 4-IC • XTAL FILTER • FM/AM
STEREO RECEIVER with Automatic Tuning and Remote Control

KENWOOD sets the pace again with this remarkable new stereo receiver that features... new automatic tuning with front panel tuning bar and remote tuning with volume control... 300 watts (IHF) power to drive three sets of stereo speakers simultaneously with distortion-free, incredibly faithful sound reproduction... FM/AM broadcast reception with superb selectivity, capture ratio, sensitivity and spurious response ratio... and provisions for expansive sound system with terminals for two tape decks, two record players, aux, mic, three sets of stereo speakers with front panel switch, center channel, separate preamp output and main amp input.

OTHER FEATURES: 2 dB Step-type Tone Control and Presence Control • FET, Mechanical Filter AM Tuner Section • Interstation Muting • Front Panel Dubbing and Headphone Jacks • 20 dB Muting Switch for temporary quiet • Exclusive Phono Inputs for Low Level Output Cartridges of 2 mV, .06 mV • Exclusive Transistor Protection Circuit (U.S. Pat.)

SPECIFICATIONS: AMPLIFIER SECTION — RMS Power Output: 110/110 watts @ 4 ohms, 90/90 watts @ 8 ohms, Each Channel Driven • 0.5% Harmonic Distortion • 0.5% IM Distortion • 12-40k Hz ±.5 dB Frequency Response • 10-30k Hz Power Bandwidth • 50@8ohms Damping Factor • MAX: +15 dB @ 100 Hz, +5 dB @ 10k Hz, MID: +6 dB @ 100 Hz Loudness Control • +6 dB @ 800 Hz Presence Control • FM TUNER SECTION: 1.5 MHz Sensitivity (IHF) • 0.4% Harmonic Distortion • 70 dB Signal-to-Noise Ratio • 1.5 dB Capture Ratio • 75 dB Selectivity (IHF) • 35 dB @ 1k Hz Stereo Separation • AM TUNER SECTION: 15 µV Sensitivity (IHF) • 30 dB Selectivity (IHF) • Dimensions: 17"W, 6½" H, 15"D • WT: 40 lbs. • Oiled Walnut Cabinet: SR-77 (optional)

For complete specifications visit your nearest Authorized KENWOOD Dealer or write...

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72-02 Fifty-first Ave., Woodside, N.Y. 11377
In Canada: Magnasonic Canada, Ltd., Toronto, Ontario, Montreal, Quebec, Vancouver, B.C.
once a considerable number of records were on the market spotlighting the soloist in this way, it was impossible — both for commercial reasons, and for the self-interest of the soloist — to record in any other way. And so there has grown up a generally accepted balance between soloist and orchestra on records which is different from that of the concert hall (and which is far truer to life today than the old 78's). A cottage industry with an agreed-upon balance are commonly noted by critics, but it is still quite possible for a listener to be upset at times even at the normal recorded balance, particularly if he is interested in orchestral details or wants to hear the orchestra at a concert-hall level of loudness.

Classical Record Imperfections

• I'd like to add another dimension to the discussion of classical record imperfections. Since its opening about eight years or so ago, I have borrowed well over a thousand records from the Lincoln Center library. A large part of my personal record collection has been inspired by listening to this borrowed music. But borrowed or purchased, the fact that a record has an iota of surface noise or other miniscule imperfection has not detracted in the slightest from the countless hours of pleasure I have derived.

Thus I have scant patience with those pretentious perfectionists who disdain anything but a mint-condition record, or whose record purchases so often suggest the beginning of an incessant badgering of the supplier for a replacement disc that is "perfect." These are not music lovers; they neither hear the music nor get pleasure from it. These are pretentious and capricious more interested by far in searching for and finding a hiss or hum or a whisper than in just plain enjoying the music for its own sake.

Of course, these whiners will haughtily proclaim themselves the only true appreciators of audio fidelity. But one wonders if they have ever had the courage to sit through a "live" concert. How could these effete musical snobs possibly sit out a performance during which the coughs, the sneezes, the rustling of programs, audience conversation and other noises produce listening "imperfections" that, compared to the foreign intrusions on a disc, are like the roar of an express train to the buzz of a fly? Some people seem immensely proud of the fuss they make over a record that to them falls short of their utopian ideal. If this is any indication of how they conduct themselves in other aspects of daily activity, they must indeed be very hard to live with. They may have far more musical training than I, but most assuredly I am a happier, more satisfied listener than they.

DAN WALLACK
New York, N.Y.

The Old Country Road

• I appreciate the articles on country music (January) even though I disagree with parts of them. In the split between modern and traditional, I favor traditional, though I have been a country fan for only three years. There has been much talk recently that some country artists and stations have become too "pop" in their appeal. Much of this talk is justified. The modern country sound is good, but doesn't have the soul and earthiness of the traditional sound. To prove that many country-music fans agree, I cite the success of radio station WBAP, Fort Worth, which is number one in ratings among all radio stations in the Fort Worth-Dallas area. WBAP has emphasized the traditional sound since going country in August, 1970.

DANNY NOVAK
Wichita Falls, Tex.

• I enjoyed the January issue of Stereo Review very much, especially the article on country music ("Whatever Happened to Nashville"). However, the photograph labeled Ernest Tubb (on page 64) definitely isn't Mr. Tubb, although it may be his lead guitarist man. I would like to know whose picture it really is.

DARRELL ANDERSON
Renton, Wash.

Apologies are extended to Mr. Tubb and to his ex-lead guitarist Leon Rhodes, whose photograph we mistakenly identified as Tubb. For partial amends we show the real Ernest Tubb below.

• As do other articles of a similar nature, "Whatever Happened to Nashville?" by Noel Coppage (January) fails, at best coming across as another attempt to enlighten us musically ignorant "city folks." Despite Mr. Coppage's efforts, I think country music will continue to survive on its own as it has in the past.

Being an expatriate of Nashville and a musician for thirteen of my twenty-eight years, I feel qualified to substantiate the following critique. I'm sure Tom T. Hall's and others' (an infinite list of both influential and successful songwriters) "scribbling," as Mr. Coppage calls it, was accepted in Nashville and, indeed, all over the world long before the Almighty and transcendent Dylan— whose albums from Nashville are, incidentally, musically some of the worst garbage ever to emanate from that town. Dylan's charisma is undeniable, but let us not attribute the success of the "new country music" or Nashville solely to him.

And if Johnny Cash and Skeeter Davis are "Country Squires" as opposed to "Hillbillies"Merle Haggard (presumably classed as such because of his material rather than his voice), then Mr. Coppage has definitely taken the wrong fork in the old country road, and his article only gains its audience by swinging with the latest musical fashion.

BARRY BLACKWOOD
Concord, Cal.

Mr. Coppage replies: "I don't know how long Mr. Blackwood has been away from Nashville, but it would surprise me if he went there now and was not impressed by how preoccupied music people are with television and various elements of the style Dylan brought to the place. And please, let's not drag in red herrings such as the quality of Tom T. Hall's song writing and of Bob Dylan's Nashville albums. If quality and influence were the same thing, there probably wouldn't be a Nashville."

Emerson, Lake, & Palmer — Pro and Con

• A word about the reviews that Emerson, Lake and Palmer have been getting in Stereo Review: I, too, am becoming disenchanted with the group. Their first two albums are among my favorites of mine. There are some pretty bad cuts on the discs, but there are moments which make up for the deficiencies.

With my interest in instrumental rock running high, I bought the latest release by the group, "Pictures at an Exhibition." This piece is one of my favorites when done in its orchestral dress. What the group does to it shouldn't happen to the worst piece ever written. There are interesting moments, but for the most part it is almost unrecognizable. If the group had stuck with performing the score as originally written, but on rock instruments, the result could have been quite fascinating. At the end of the second side, in Nutter (Tchaikovsky, forgive them!), the music degenerates radically after a mere few bars. What a travesty! I shall be charitable and assume that this is because their contract calls for a high output, since they seem to be Colilhon's hottest property. But Emerson, Lake, and Palmer may soon cool off and freeze in the music stores!

G. LAWRENCE WILLARD
Thayer, Kan.

Mr. Coppage replies: "I realize that Noel Coppage must have been as busy as the rest of us in January, having just gotten past Christmas and all. But this is no excuse for the "too-busy-to-care" attitude evident in his review of "Tarkus" in the January tape review section of Stereo Review. Emerson and his sound are original and not just a reworking of Brian Auger and the Moody Blues. As for Mr. Coppage's comments on Emerson's ability, many people also concerned with music (disc jockeys, other record reviewers, and recording engineers) disagree strongly with him."

If Mr. Coppage had listened carefully to the album and looked at the liner notes he would have noticed that the recording, engineer was Eddy Ossoff; and contained in the song Are You Ready, Eddy? are such lyrics as "Are you ready, Eddy? To turn the gumbo That 'Fifties rock-and-roll' song is actually a tongue-in-cheek salute to the engineer who helped complete what was, if not musically, at least technically a masterpiece of an album."

L. D. JACOBS
Wilmington, Del.
"Second Best" is getting better

It used to be that every new cartridge made was doomed to near-obscurity in the monumental shadow of our Shure V-15 Type II Improved Cartridge. The shadow is still there, of course, but with the introduction of our new M91ED Cartridge, the "second best" cartridge comes somewhat closer to the performance capabilities of the V-15 Type II—especially in the area of trackability. That's because the M91ED uses some of the same design principles used in the V-15 Type II: among them, a gem-quality diamond stylus tip that is "nude-mounted" directly on the stylus bar—decreasing stylus tip mass and increasing trackability. The M91ED reproduces the high recorded levels of modern pressings with ease—and at tracking forces that reduce record and stylus tip wear to a reassuring minimum. Suggestion: the new M91ED for modest budgets, the V-15 Type II Improved if only state-of-the-art perfection will do.

Shure Brothers Inc.,
222 Hartrey Ave., Evanston, Ill. 60204
There's more behind the BOSE 901 than just a reflecting wall.

Research

The 901 DIRECT/REFLECTING® speaker system is the result of the most intensive research program that has been conducted into the physical acoustics and psychoacoustics of loudspeaker design. The research that gave birth to the 901 in 1968 began in 1956 and continues today to explore the frontiers of sound reproduction. Copies of the Audio Engineering Society paper, 'ON THE DESIGN, MEASUREMENT AND EVALUATION OF LOUDSPEAKERS', by Dr. A. G. Bose, are available from the Bose Corp. for fifty cents.

Technology

As might be expected, the product that emerged from 12 years of research is technologically quite different from conventional speakers. Some of the major differences are:

1) The use of a multiplicity of acoustically coupled full-range speakers to provide a clarity and definition of musical instrument sounds that can not, to our knowledge, be obtained with the conventional technology of woofers, tweeters, and crossovers.
2) The use of active equalization in combination with the multiplicity of full range speakers to provide an accuracy of musical timbre that can not, to our knowledge, be achieved with speakers alone.
3) The use of an optimum combination of direct and reflected sound to provide the spatial fullness characteristic of live music.
4) The use of a totally different frequency response criterion—flat power response instead of the conventional flat frequency response—to produce the full balance of high frequencies without the shrillness associated with conventional Hi-Fi.

Quality Control

It's a long way from a good theoretical design to the production of speakers that provide you with all the musical benefits inherent in the design. To this end BOSE has designed a unique computer that tests speakers for parameters that are directly related to the perception of sound. There is only one such computer in existence—designed by us and used for you. In January alone it rejected 9,504 speakers that will never be used again in any BOSE product. It is the speakers that survive the computer tests that provide your enjoyment and our reputation.

Reviews

The BOSE 901 DIRECT/REFLECTING® speaker is now the most highly reviewed speaker regardless of size or price. Read the complete text of reviewers who made these comments:

Julian Hirsch STEREO REVIEW. 
"...I must say that I have never heard a speaker system in my own home which could surpass, or even equal, the Bose 901 for overall 'realism' of sound."

e/e HIGH FIDELITY. "It is our opinion that this is the speaker system to own, regardless of price if one wants the ultimate in listening pleasure."

Irving Kolodin SATURDAY REVIEW. 
"After a time trial measured in months rather than weeks, this one can definitely proclaim Bose is best, big or small, high or low."

Performance

You alone must be the judge of this. Visit your BOSE dealer. Audition the 901 with your favorite records. We make only one request. Before leaving, ask him to place the 901's directly on top of the largest and most expensive speakers he carries and then compare the sound. You will know why we make this request when you have made the experiment.

*For reprints of the reviews circle our number on your readers service card.

You can hear the difference now.

BOSE®

NATICK, MA. 01760

STEREO REVIEW
Did you know that the one inch base on the bottom of the BOSE 501 DIRECT/REFLECTING® speaker is essential for the clarity of its sound? It is—but for a very different reason than you might expect.

The surfaces immediately adjacent to any loudspeaker affect the balance of frequencies that it radiates into the room. You have no doubt discovered this in changing the position of your speakers at home. Variations in the location of any speaker relative to adjacent wall or floor surfaces can cause gross variations of the frequency balance of the sound radiated into the room, in the manner shown in Figure 1. This is often more variation in sound than you get between speakers of widely differing price ranges.

As a consequence of this variation with position, the performance of every 'bookshelf' speaker is at best a compromise. Does it sound better on a free standing shelf, on the floor, along the wall, in the corner, or is it designed to sound reasonably well in all positions and therefore, not yield optimum performance in any? This is a fundamental acoustical problem inherent in the concept of a 'shelf' speaker and independent of designer or manufacturer.

And this is where the base of the 501 comes in. The base itself has nothing to do with the radiation of sound but it was designed so that you must place the 501 on the floor. In addition, you are instructed to place it along a wall. And we don’t allow you to place it in a corner!

Our knowledge of your placement of the 501 gives us a design advantage that directly converts to a superior performance for you. The 501 is designed to optimally couple to the adjacent floor and wall surfaces.

Admittedly, it is a rather autocratic approach for a designer to tell you how to place your speaker. However, we feel about the 501 as we do about the now famous 901, with which it shares many features. We would much prefer that you buy a conventional speaker than to use ours improperly—even if it still has an edge over the competition when so used. Your enjoyment and our reputation are involved with every performance.
NEW PRODUCTS

Realistic/Miracord 45
Automatic Turntable

- Radio Shack has begun marketing a Miracord automatic turntable with a pre-installed Shure magnetic phono cartridge under the Realistic brand name. The four-speed unit (16 2/3, 33 1/3, 45, and 78 rpm), designated the Miracord 45, is pushbutton-controlled for all modes of operation, with individual buttons for cueing to discs of various diameters. A separate manual cueing lever raises and lowers the tone arm at any point on the record, with the movement viscous damped in both directions of travel. A threaded counterweight is used to balance the tone arm, after which tracking force is applied with a knob on the pivot assembly. A separate anti-skating adjustment on the motor board is calibrated to correspond with the tracking-force values. Wow and flutter for the turntable are under 0.1 per cent. and rumble is at a level of -50 dB. The cartridge, the equivalent of the Shure M91E, has a 0.2 x 0.7-mil diamond elliptical stylus, and is designed for tracking forces of 3/4 to 1 1/2 grams. Its output is 5 millivolts for a recorded velocity of 5 centimeters per second. The turntable comes spring-mounted on a walnut base; both automatic and manual spindles are supplied. Price of turntable with cartridge and base: $149.95. A dust cover is available for $12.95.

Circle reader service number 115

Cubicon Modular Storage System

- Cubicon manufactures a multi-purpose storage and shelving system that can be expanded indefinitely through the use of stacking and interlocking components. The basic modules for the system are four-sided compartments of rounded-square or rectangular shape ranging in size from 13 x 13 x 9 inches to 25 x 25 x 12 inches. Many of the compartments would be convenient for the installation of audio equipment. The modules can be supplemented with a variety of legs, bases, and flat panels to serve as backs or floors for the compartments. All components are provided with slots at either side of their rounded corners to facilitate interlocking; suitable fasteners are supplied with each unit for stacking or interlocking assembly. The components are constructed of 1/4-inch wood laminate with a glossy acrylic finish; the basic color is white, although some parts are available in such shades as turquoise, vermilion, purple, and lime. Among the optional accessories offered are casters, dividers for record storage, and brackets for wall or hanging installation. Prices range from $12 for the smallest compartment module to $24.75.

Circle reader service number 116

Altec 874A Speaker System

- Altec has introduced a new speaker system of "bookshelf" proportions that employs a 12-inch woofer, a 4-inch cone mid-range, and a small dome tweeter in a three-way configuration within a sealed enclosure. The 874A "Segovia" system has crossover frequencies of 300 and 4,000 Hz, with 12-dB-per-octave attenuation slopes beyond the dividing points. Controls on the back of the enclosure adjust the relative levels of the mid-range and tweeter units for the desired spectral balance. The 874A has a nominal impedance of 8 ohms, and amplifiers capable of large power outputs are recommended for use with it. Frequency response is given as 20 to 20,000 Hz. The walnut-finish enclosure, which has a grille fashioned in a fretwork pattern with recessed segments, is approximately 25 1/2 x 11 1/2 x 12 inches. Price: $250.

Circle reader service number 117

Magnavox Model 8898
AM/Stereo FM Receiver

- Magnavox has introduced a stereo receiver with an illuminated digital frequency display for both FM and AM reception instead of the customary tuning dial. An integrated-circuit (IC) frequency counter determines the frequency to which the receiver is tuned and causes it to appear in inch-high numerals behind the glass face of the black-out front panel. IC's are also used in the tuner section and phono preamplifier. The receiver, designated the Stereo 1500 BTI (Model 8898), is guaranteed to meet or exceed all its published specifications. It is rated for a power output of 50 watts per channel continuous (both channels simultaneously driving 8-ohm loads) and a power bandwidth of 15 to 20,000 Hz. Harmonic and intermodulation distortion are 0.5 and 1 per cent or less, respectively, at rated output. Frequency response is 20 to 25,000 Hz ±1 dB, and weighted signal-to-noise ratios are 60 dB (magnetic-phono inputs) and 75 dB (auxiliary inputs). Thermal and current-limiting devices are used together with fuses to protect amplifier and speakers from overload. The FM section's minimum 1HF sensitivity is 3 millivolts.

(Continued on page 14)
NOT ALL CHROMIUM DIOXIDE CASSETTES ARE EQUAL...

ONE IS MORE EQUAL THAN THE OTHERS

There's a lot of performance capability locked up inside chromium dioxide, but it takes the right know-how to liberate it. There is the basic tape, there is the accuracy in slitting, there are the dozens of little cassette-housing construction details and the over-all skill of a world renowned company, like TDK, that altogether will make the difference. Yes, not all chromium dioxide cassettes are equal. Now you can have chromium dioxide tape with TDK's own special touch. Of course KROM-O₂ is the cassette that gives you the widest possible range of frequency response, the famous dynamic range and the complete reliability that only TDK can offer. But all these will only be of benefit to you if you have a cassette machine that can properly be biased for chromium dioxide. If you have only standard bias, use any of the TDK superior tapes and cassettes, either the famous TDK Super-Dynamic or the Low-Noise. TDK cassettes are just a little more equal than the others.

Purity in sound. Surety in use. If TDK can't combine them in a unique way, who else can?

World's leader in tape technology.

TDK ELECTRONICS CORP.
LONG ISLAND CITY, NEW YORK 11103

MAY 1972
Onkyo Model 25 Speaker System

Onkyo, a company new to the U.S. market, is introducing a line of speaker systems, prominent among which is the Model 25, a three-way direct-radiating system installed in a sealed enclosure. The 14-inch woofer, with a free-air resonance of 19 Hz, operates up to 700 Hz. The higher frequencies are assigned to two Duraluminum-dome units: a 2-inch mid-range, which extends response to 7,000 Hz; and a 1-inch tweeter for the upper audio frequencies. Both are protected from physical damage by perforated metal screens. The Model 25's rated power is 5 watts. The system's nominal impedance is 8 ohms. Level controls for the midrange and tweeter are five-position rotary switches that provide a range of ±3 dB in 2-dB increments. The cabinet is of oiled walnut, measuring 25½ x 14⅞ x 11¾ inches. The grille cloth (not shown) is woven of beige and off-white fabrics. Price of the Model 25: $249.95.

Dynaco FM-5 Stereo-FM Tuner

Dynaco's new FM-5 is a fully transistorized FM-only stereo tuner, available factory-assembled or as a kit, with a prealigned FET front end and prewired circuit boards for the remainder of the tuner stages. The i.f. section contains seven ceramic filters; seven integrated circuits are employed in the i.f. and multiplex circuitry. Specifications for the FM-5 include an IHF sensitivity of 1.75 microvolts, a 1.5-dB capture ratio, and typically 0.25 per cent harmonic distortion for stereo reception at 100 per cent modulation. AM suppression is 58 dB, with alternate-channel selectivity 65 dB. Stereo separation is 40 dB at 1,000 Hz and 30 dB at 50 and 10,000 Hz. The switchable muting circuit provides 60 dB quieting of interstation noise, with a 4-microvolt threshold. Frequency response is 30 to 20,000 Hz. Amplifier power of at least ten watts continuous per channel is recommended; power-handling capability is 60 watts. The system's nominal impedance is 8 ohms. Level controls for the mid-range and tweeter are five-position rotary switches that provide a range of ±4 dB in 2-dB increments. The cabinet is of oiled walnut, measuring 25½ x 14⅞ x 11¾ inches. The grille cloth (not shown) is woven of beige and off-white fabrics. Price: $579.95.

Stereo separation is 40 dB at 1,000 Hz with alternate-channel selectivity 65 dB. Stereo separation is 40 dB at 1,000 Hz and 30 dB at 50 and 10,000 Hz. The switchable muting circuit provides 60 dB quieting of interstation noise, with a 4-microvolt threshold. Frequency response is 30 to 20,000 Hz. Amplifier power of at least ten watts continuous per channel is recommended; power-handling capability is 60 watts. The system's nominal impedance is 8 ohms. Level controls for the mid-range and tweeter are five-position rotary switches that provide a range of ±4 dB in 2-dB increments. The cabinet is of oiled walnut, measuring 25½ x 14⅞ x 11¾ inches. The grille cloth (not shown) is woven of beige and off-white fabrics. Price: $579.95.
The Concord Mark IX cassette deck starts with an extremely low signal-to-noise ratio — better than 50 dB down. The Dolby Noise Reduction system reduces hiss by another 10 dB, and that's just the beginning. The deluxe Concord Mark IX has switch selected bias for standard and chromium dioxide tape cassettes. The narrow head gap and better than 100 kHz bias frequency provide extended frequency response from 30 to 15,000 Hz.

The Mark IX looks like a studio console and performs like one too. With pop-up VU meters, studio type linear sliders for individual control of input and output levels, third mike input for mixing in a center channel microphone, a 3-digit tape counter and a stereo/mono switch for more effective mono record and playback. And this brilliant panel lights up for power on, record and for Dolby.

And when the cassette is finished, Endmatic, a Concord exclusive, disengages tape and transport and returns the pushbuttons to off. And best of all, it's now available at your Concord dealer at a fair price for all of this quality, $249.79.

If you already have a cassette, open-reel or 8-track deck, the Concord DBA-10 Dolby tape adaptor can reduce hiss and improve performance. It will also improve your receiver's performance in playing back Dolbyized FM programs, $99.79.

Your Concord dealer also has a complete line of 8-track and open-reel decks, stereo receivers and cassette portables. Concord Division, Benjamin Electronic Sound Corp., Farmingdale, N.Y. 11735, subsidiary of Instrument Systems Corp.

Prices subject to change without notice.

Concord Mark IX

Dolby Cassette Deck
New Koss K 2+2 Quadrafonies:
The best of both possible worlds.

Two-channel stereo to four-channel stereo with a flick of a switch. We call it the K 2+2. You'll call it the most exciting innovation in stereophones since Koss introduced the ESP-6 Electrostatic Stereophone. Because now you can buy both two-channel stereo and four-channel stereo in one great stereophone. How's that for the best of both possible worlds?

Flick the switch today to two-channel stereo and your whole library of music comes alive with the breathtaking, full-dimensional Sound of Koss. When you buy your four-channel equipment, just flick the switch to four-channel and four separate driver elements in the Koss K 2+2 surround you with the exciting new sound of quad.

And the Koss K 2+2 introduces another feature that makes it doubly exciting. Volume controls at the base of each ear cup adjust the volume of the front drivers. By simply adjusting the volume controls, you can listen to your favorite concert from the middle of the concert hall one minute and from front row center the next. And that is an engineering feat in itself. But then so is the best of both possible worlds in one stereophone.

For only $85 complete with foam-lined carrying case, the Koss K 2+2 is worth listening to at your favorite Stereo Dealer. You might even say it's like buying four-channel on a two-channel budget. Which is a switch.
You are about to read detailed technical information concerning the most advanced sound reproduction system introduced in many years. Created by the Electro Music division of CBS*, the new Leslie Plus 2 system offers the listener two unique advantages over previous systems: 1. It provides sound augmentation for existing stereo systems which "animates" the music and reduces "standing waves" (dead spots) in the room. 2. It offers easy adaptability for switching between augmented two-channel recordings (stereo) and quadraphonic recordings (four-channel). The Leslie Plus 2 system reproduces both!

Your home is not a lab. In the past, speakers and systems were evaluated on their ability to produce a "transparent sound" in a laboratory environment. However, when measured in a typical room, the sound waves interact with room surfaces, carpets, drapes, etc. and the flatness disappears. The Leslie Plus 2 system was designed to release the sound in a room to create a full, natural reconstruction of the music irrespective of room surfaces and sound-absorbing materials. One of the surprise benefits of the Leslie Plus 2 system is its ability to enhance S Q program material so that this superior recording method can be enjoyed in all room locations, instead of just the precise center of the room. Result: the music "comes alive" no matter what type of room you have and no matter where you sit.

The graph tells the story. To demonstrate how the Plus 2 speakers, working with conventional stereo speakers, perform in a typical furnished room, the same frequency scan was repeated five different times. As a result of the "random sound" qualities of the Leslie Plus 2 system, each measurement showed a somewhat different response curve. And, if the experiment were repeated five more times, still another five curves would be plotted. By superimposing the first five measurements over each other (see graph above), the benefits of the composite nature of Plus 2 sound becomes apparent. The random distribution of sound provides animation and the physical movement of sound waves which disrupt "standing waves", eliminating acoustically dead areas.

Leslie Plus 2 cabinets are used in combination with your present stereo system. For stereo recordings, the "normal sounds" are produced by your present speakers and the "augmented" sounds by the Leslie Plus 2 speakers. Each Leslie cabinet has its own amplifier and a rotating drum rotor (photo above) to physically disperse the sound output throughout the room. Also, each Leslie cabinet has advanced 360° electronic phase shifters which produce a random spatial effect. Working together, they "animate" the sound to create the presence of a live performance.

An exclusive feature: the rotor. Leslie Plus 2 cabinets are used in combination with your present stereo system. For stereo recordings, the "normal sounds" are produced by your present speakers and the "augmented" sounds by the Leslie Plus 2 speakers. Each Leslie cabinet has its own amplifier and a rotating drum rotor (photo above) to physically disperse the sound output throughout the room. Also, each Leslie cabinet has advanced 360° electronic phase shifters which produce a random spatial effect. Working together, they "animate" the sound to create the presence of a live performance.

MODEL 430 LESLIE PLUS 2 SPEAKERS. Sound of the future. With a simple flick of a switch, the Leslie Plus 2 speakers convert your system into a full quadraphonic system. The Leslie Plus 2 system contains two independent 50 watt RMS amplifiers and can be used to amplify the two additional channels of discrete 4-channel tape. For quadraphonic recordings, the only additional component required is a decoder. Set for the quadraphonic mode, each of the four speakers acts independently to reproduce full-fidelity 4-channel sound.

For all these reasons, Leslie Plus 2 speakers offer a drama and scope never before available to home listeners. For additional information you are invited to see your nearest franchised Leslie Plus 2 dealer or complete the coupon below.}

*Electro Music CBS Musical Instruments, A Division of Columbia Broadcasting System, Inc. 56 West Del Mar Boulevard, Pasadena, California 91105

Please send me additional information about the Leslie Plus 2 systems.

NAME
ADDRESS
CITY & STATE

MAY 1972

19
If you choose to buy a $400 receiver, here are some choices.

<table>
<thead>
<tr>
<th>Manufacturer</th>
<th>Model</th>
<th>Power output (W)</th>
<th>Number of bass drivers</th>
<th>Sensitivity (dB)</th>
<th>Frequency response (Hz)</th>
<th>Price</th>
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<tr>
<td>Fisher</td>
<td>450 T</td>
<td>55</td>
<td>NA</td>
<td>2.0</td>
<td>10Hz to 30kHz</td>
<td>$399.95</td>
</tr>
<tr>
<td>Kenwood</td>
<td>KR 6160</td>
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<td>65</td>
<td>1.6</td>
<td>12Hz to 30kHz</td>
<td>$429.95</td>
</tr>
<tr>
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<td>2245</td>
<td>45</td>
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<td>7Hz to 70kHz</td>
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<tr>
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<td>40</td>
<td>NA</td>
<td>10Hz to 60kHz</td>
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</tr>
<tr>
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<td>SX 828</td>
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<tr>
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<td>70</td>
<td>80</td>
<td>2.2</td>
<td>50Hz to 30kHz</td>
<td>$410.00</td>
</tr>
</tbody>
</table>

These data were obtained from manufacturers' literature.

(Scott 477 is your best choice.)

As an astute audiophile, you naturally want to compare specifications and prices on the better makes of equipment before committing yourself. If it’s a high quality receiver you’re after, we’ve aided your selection by preparing a spec chart comparing our 477 AM-FM Stereo Receiver with its closest competitors.

We invite you to study the specifications of the respective units along with their prices. You’ll find the Scott 477 is the value-for-the-price leader among this distinguished grouping of receivers in the $400 price class.

If you’re not convinced by specs alone, we further invite you to ask your Scott dealer for a listening test of the 477 receiver connected to your favorite speaker system. Check its performance on both recorded and broadcast program material of your choice. Then, compare the 477 with any other receiver in its price class.

You’ll find the Scott 477 AM-FM Stereo Receiver is your best choice.
THE LANGUAGE OF EVALUATION: I find that measuring the performance of a component is actually the easy part of my job as an equipment reviewer. The real problems begin when we try to express, in words, how well the subject of the report performs, and in particular, just what we really think of it! Both Larry Klein and I regularly receive letters from readers asking whether a Brand A receiver—or amplifier, or speaker, etc.—is "better" than Brand B, or perhaps which of several makes he should buy. In many cases, we have already reviewed some of the products in question, and have publicly stated our opinions. Surely, argues the reader, one of them must be a little better than the others, or at least don't we have some personal preference based on data other than that published?

Not necessarily. How does one define what makes one product "better" than another? Someone's overall reaction to a component is a composite of many factors, technical and personal, and neither we nor anyone else can possibly take all of them into account. Even if we restrict ourselves to, say, fifteen electrical or electro-acoustic parameters, most comparisons of similar products will usually reveal that one excels in some areas, but is outperformed in others. And then, of course, there's still the matter of taste in design and control functions. And if we as "experts" disagree—as often happens—who is to judge between us? Suppose the technically "better" one is styled in a manner that, in my view, elevates it to the laboratory bench or cellar, while the other one is a handsome unit I would be proud to have on display in the living room. Which is "better" for you? Of course, there are times when we encounter a product that is clearly superior in almost all areas. But if it also happens to be a more expensive unit, the choice is still up in the air.

We are aware that many readers would like nothing better than for us to publish relative quality ratings of all components of a given type, but for a number of reasons we can't oblige. We seldom have an opportunity to do A-B-C comparisons for more than a few components of any particular type and price range. If someone were to ask me what is the "best" something at a particular price level, and I had the time to do so (I don't), I would have to look back through my files on all the products we have tested in the particular category and read what I said at the time. And even if I could thereby come up with a "best"—it would still be only my best, reflecting my tastes in visual appearance, features, and technical requirements, and not necessarily those of my questioner. Therefore, when we write something like "This unit ranks among the finest we have tested in its price range" or whatever, we mean just that, and we cannot rank the product with any more precision.

We have been "accused" of labeling every new product as "better than ever" or "one of the best," with the implication that this constitutes an evasion or a lack of critical judgment. Even if we were guilty as charged (and a re-reading of our reports will show that the accusation is not valid), no such conclusion would be warranted. The plain fact of the matter is that components are getting better all the time. The overall improvements in performance of amplifiers, tuners, phono cartridges, speakers, and so forth—as compared with those available two, five, or ten years ago—is difficult to appreciate unless you have been listening to, living with, and testing their predecessors for more than twenty years, as we have. The improvements are substantial, not trivial or merely cosmetic in nature. Furthermore, the improvements are there whether absolute performance or "value per dollar" is used as a criterion. Believe it or not, even with inflation,

TESTED THIS MONTH

- Heath AJ-1510 Digital Tuner Kit
- Smaller Advent Loudspeaker
- Harman-Kardon 930 Receiver
- Wollensak 4760 Cassette Deck

MAY 1972
today's dollar buys vastly better component performance than a dollar ever did in the past. Furthermore, the majority of components are very good values. True, Brand A may have a microvolt or so better sensitivity than Brand B, or Brand B may have several more watts power than Brand A, but, in my view, most of the measurement differences within a price range are not as significant for a given user as the component's features, appearance, and quality control. This last factor (together with long-term durability and manufacturers' warranties) is a subject that I hope to get to in the next several months.

When we said that a certain amplifier of 1970 was "one of the best," we meant just that. Perhaps we also subsequently said the same thing about several of its contemporaries. Now, in 1972, we have a whole new crop of "among the best" components. Not only are many of them comparable to each other, but chances are that any one of them is demonstrably superior to 1970's models. The moral is that no review should be taken out of its temporal context. For this reason, STEREO REVIEW requests that all advertising quotes from our reports be dated - though occasionally someone slips up.

From time to time we find a product that "misses the boat" either completely or in some vital aspect. We don't report on it, preferring to devote our limited page space to more worthy efforts. Almost invariably, the products whose reports are "killed" also perish swiftly and unmourned in the market place. Happily, this is a relatively rare occurrence.

Occasionally, we will state that a particular model is "the best of its type that we have tested." Although this may seem to run counter to the position expounded upon above, there have been instances where we felt it was justified. And this is not to say that there may not be better units available that we have not tested, or that we may not test another two months later that is better than our previous best.

Finally, there is the matter of personal preference - "prejudice," if you will. Any equipment reviewer who denies having such prejudices is either (a) a liar, (b) so devoid of real interest in the subject of hi-fi that his opinions should be considered worthless, or (c) both of the preceding. I cannot believe that anyone who enjoys and appreciates music, accurate sound reproduction, and the technological ingenuity manifest in much of today's hi-fi hardware could be totally detached and free of personal reactions. I certainly am not. But if I am partial to a Brand A component, how can I possibly be objective when reviewing Brands B, C, and D? This is not as difficult as it might seem, for my test instruments are completely objective, and I record their readings exactly as they occur. Since I rarely become excited by special features or "gimmicks," I can report and comment on them without undue enthusiasm or skepticism (unless these reactions are - to me - justified).

It is only in the final summary of my report that I ever clearly state my own views on the total product performance. If I make no special points - either positively or negatively - it is safe to assume that the unit, like most of its competitors, does its job as competently as the test data suggest - no more and no less. Anyone who wants to know what I really think should read my reports carefully, interpreting every word as literally as possible. If I say a product is "good," "fine," "excellent," I mean just that, and have never used any of those words to describe a product when I did not believe it to be true. It is also true that you may disagree with my opinion, which is, of course, your privilege.
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A true course to the ultimate in sound enjoyment. We’ve spent a lifetime building equipment that can faithfully respond to your demands. Along the way, we’ve developed advanced engineering techniques that have elicited praise from the most critical of audio enthusiasts. Today, as always, one thing remains true. Whatever your choice in responsive sound equipment, you’ll find that Pilot leads the way.

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When the Power on button is pressed, the upper portion of the panel "comes to life," revealing in soft green illumination a four-digit numerical readout at the left, a relative-signal-strength meter in the center, and a red dot at the right serving as a pilot light. The first of the mode-control buttons is marked Keyboard, and pressing it produces a reading of 00.1 MHz (Megahertz) on the indicator tubes. Any desired FM channel frequency is selected by pressing, sequentially, the appropriate three (or four) digits on the array of numbered buttons. The final frequency appears on the indicator tubes, the signal meter moves up-scale (assuming that a receivable signal is on that channel), and the program emerges from the speakers. To change channels, push reset, which restores the 00.1-MHz reading, and punch in the new station. If the channel selected is outside the 88.1 to 107.9 MHz limits of the FM band, the word Re-program appears in red to the right of the meter. Since all FM channel assignments end in an odd digit, selecting a frequency such as 96.0 MHz will automatically produce the next higher channel—in this case 96.1 MHz.

The second operating mode is Auto-sweep. When this button is pressed, the tuner goes to 107.9 MHz and scans downward until it comes to a suitable signal, where it stops and un-mutes. To continue the scan, press By-pass. Pressing the reset button at any time returns the tuner to 107.9 MHz, from where it begins scanning again.

For the many people who listen mostly to a few favorite stations, the Re-program mode permits instant access to any of three channels by pressing one of the center buttons (A, B, C). Any channel can be programmed to any of these buttons by the insertion of the appropriate punched card into one of the three slots behind the drop-down front panel. The two remaining buttons are Squelch defeat, for receiving weak signals below the normal muting threshold, and Stereo only, which causes the tuner to respond only to stereo broadcasts.

The bottom third of the panel is a black strip which springs open when pressed and released. Behind it are a number of auxiliary controls that rarely require adjustment. The functions of all the controls are marked on the inside of the hinged strip. At the left is a small button that tests the display tubes by illuminating all their segments to reveal any defects in the tube or its drive elements that might give an erroneous frequency indication. A small knob varies the Auto-sweep scanning speed. The time to cover the full FM band can be varied from about 13 seconds to about 53 seconds. The squelch (or muting) circuits can be set to respond to signal level (AGC squelch) or to the noise content of the signal (Noise squelch), and separate threshold adjustments are provided for each system. The Noise squelch operates principally on the Keyboard and Re-program modes, while the AGC squelch is used for the Auto-sweep mode.

Next are two small slide switches. One converts the signal-strength meter to a multipath-distortion indicator. (Obviously, a center-channel tuning function is not needed; the meter serves to indicate maximum signal strength and minimum multipath distortion achieved by correct antenna orientation.) There are also vertical and horizontal outputs in the rear of the tuner for connection to an oscilloscope. The other slide switch is a Stereo/Mono selector, with a center blend position for reducing noise in stereo reception by partially mixing the higher audio frequencies of the two channels. Finally, at the right are three slots for the punched Re-program channel-selector cards. The AJ-1510 is supplied with ten blank cards, the edges of which are easily notched with scissors or diagonal cutters according to instructions in the manual. Each card has a place for writing in the channel frequency and the station call letters. Once programmed for the desired frequencies, the cards are inserted and left permanently in place; the A, B, and C buttons are used to tune in at any time the station for which the cards have been punched.

In the rear of the tuner are the 300- and 75-ohm antenna terminals, an unswitched a.c. outlet, outputs for an oscilloscope, and the audio outputs. A second pair of audio outputs (not used) are provided as well, presumably in anticipation of the possible acceptance of a four-channel FM broadcast system to which the AJ-1510 could be converted by a change of one of its circuit boards. The Heath AJ-1510 is 163/4 inches wide, 6 inches high, and 141/4 inches deep; it weighs 153/4 pounds. An accessory wooden cabinet is available for $24.95. The tuner, available only as a kit, costs $539.95.

- Laboratory Measurements. In every important respect, our measured performance data on the AJ-1510 met or exceeded Heath's published specifications. The only exceptions were the difficult capture-ratio measurement (ours was 2.9 dB, Heath's was 1.5 dB) and the FM distortion, where our generator's residual level of 0.5 per cent distortion prevented us from confirming Heath's rating of 0.3 per cent. The HF sensitivity was 1.6 microvolts, and a minimum-distortion signal was received from any input of 3 microvolts. The 89-dB image-rejection figure was very good, and we confirmed Heath's alternate-channel selectivity rating of 95 dB when we found it to be beyond the 100-dB limit imposed by the maximum output of our (Continued on page 26)
Copland's music challenges Altec's finest.

Aaron Copland's music: western prairies, big cities, Billy the Kid, Appalachian Spring, ballets, symphonies, chamber music, film scores. It's great American music. The kind that challenges a stereo.

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signal generator. The ultimate signal-to-noise ratio was 64 dB, and AM rejection was a good 55 dB.

The FM frequency response was well within ±1 dB from 30 to 15,000 Hz. Stereo channel separation was exceptionally good—40 dB at middle frequencies, more than 30 dB from 130 to 9,000 Hz, and more than 18 dB from 30 to 15,000 Hz. The AJ-1510’s suppression of 19- and 38-kHz components of stereo FM signals was the best we have yet encountered.

Since the frequency accuracy of the AJ-1510 is determined by a built-in quartz crystal, Heath’s 0.005 per cent specification is certainly realistic, although we could not verify it. We did find that merely by tuning the signal generator for a maximum reading on the meter of the AJ-1510, we were usually within 5,000 Hz of the channel center!

**Comment.** It is quite impossible, in the available space, to give an adequate description of this remarkable tuner. Anyone familiar with the inside of a typical FM tuner will not recognize this as belonging to the same family. It more closely resembles a small digital computer. There are no moving parts (the tuning is entirely electronic), and almost nothing resembling r.f. circuit components. Except for a few peaking adjustments on the front end, i.f., and multiplex sections, there is no alignment required—or possible! The i.f. selectivity is provided by sealed multi-pole inductance-capacitance filters. Not only do they give outstanding alternate-channel selectivity (the kind most of us are concerned with), but it is also easy to separate adjacent-channel signals only 200 kHz apart, in those areas where they can be received.

A large part of the construction manual, which runs to about 218 pages, is devoted to an extremely detailed checkout procedure, board by board, using the tuner’s own meter for voltage and resistance checks. In our judgment, there is nothing particularly difficult involved in building this tuner, but it is certainly a lengthy process. By our own rough count, the AJ-1510 contains some 198 resistors, 137 capacitors, 58 diodes, 38 transistors, and 55 integrated circuits. The soldering involves close-in work, and Heath supplies a small soldering iron with the kit for use on the IC socket connections. Given the circuit design of the AJ-1510, there’s no reason why a home-built unit should not match the performance of the wired unit supplied to us for testing.

When it comes to using the AJ-1510, we find ourselves almost at a loss for words. It is probably as near to the ideal FM tuner as we have ever encountered. There are other tuners—quite a few, in fact—with similar electrical performance. And certainly, one is not likely to hear a difference between the AJ-1510 and some of the other top-quality tuners on any broadcast program material. However, tuning the AJ-1510, in any of its modes, is a unique experience. No matter how you go about it, the output is always a clean signal or nothing—not a hint of a thump, hiss, or squawk at any time. The ability to go to any channel instantly without passing through a multitude of unwanted signals is a unique feature of the KEYBOARD tuning mode. As we found in actual use, there are a number of signals—weak, to be sure—in our area that are not ordinarily receivable on other tuners because one simply cannot set their frequencies accurately enough to be sure of being on the correct channel. And, too often, FM tuners do not have the selectivity to separate stations 200 kHz apart. This one does.

The Heath AJ-1510 is undeniably expensive, and assembling it will surely occupy the builder’s spare hours for some time. However, for anyone who wants a tuner that is most certainly representative of the present state of the art, and which is not likely to be surpassed in any important respect for the foreseeable future, his search can stop at the AJ-1510.

*For more information, circle 105 on reader service card*

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**Smaller Advent Loudspeaker**

- The "Smaller Advent" is, we believe, unique among members of loudspeaker family groups. Although it occupies exactly half the volume of its larger relative (which is simply called "The Advent Loudspeaker"), weighs far less (27 pounds vs. 42 pounds), and is 40 per cent cheaper, its acoustic properties are *identical* to those of its big brother. This was the goal of the designers, and we can verify that they achieved it, and with perhaps a little to spare.

Of course, something had to be sacrificed in the process. Efficiency, for one thing, is quite low—comparable to that of the least efficient acoustic-suspension speakers we have tested and about 3 dB less than the large Advent speaker. Since Advent expected the smaller speaker to be widely used with relatively inexpensive and low-powered amplifiers, this might seem to be a strange compromise. But to some extent the designers have compensated for low efficiency by giving the smaller speaker a 4-ohm impedance, which will draw 25 to 50 per cent more power from an amplifier than an 8-ohm speaker. Also, the Smaller Advent speaker is designed to be played at reasonable (i.e., *not* ear-splitting "Audio Show") levels in ordinary rooms of moderate size. As a result, when appropriately used, it will perform very well indeed with any good amplifier in the 15 to 20-watt-per-channel power-output range.

The woofer of the Smaller Advent loudspeaker has a cone diameter (including the surround) of about 8½ inches (it is nominally a 9½-inch unit, including the metal basket). The free-air resonance is 18 Hz, and in the fully sealed enclosure (which measures 11½ x 20 x 9¼ inches) the bass resonance is nominally 43 Hz. Both figures are identical to those for the original Advent speaker. However, low-frequency power-handling ability has also been somewhat sacrificed in the Smaller Advent, compared with the larger system.

The tweeter, a 2-inch diameter cone with a ¾-inch center-dome, is physically identical to that of the larger Advent speaker. The crossover frequency is at 1,500 Hz, and there are no external level controls. The Smaller
LAFAYETTE introduces the easy way to convert your present stereo system to 4-channel sound...

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Lafayette wants you to know that your existing 2-channel stereo system can be easily and economically converted to play the new 4-channel program sources and material. With the LA-524 and an additional pair of rear speakers, you will be able to play the NEW Columbia SQ Quadraphonic records in breathtaking 4-channel sound. We provide you with 60-watts of rear channel amplifier power (20-20,000 Hz ± 1.5db) sufficient to drive most speaker systems. To simplify things even more, a master volume control on the LA-524 makes level settings a snap for all four channels. The new 4-channel 8-track tape cartridges and 4-channel reel-to-reel tapes can also be played through your present system using the LA-524. Wondering about your present stereo record collection? The LA-524's exclusive "Composer" circuit will make them sound more exciting and live than ever before in rich derived 4-dimensional sound. It does the same for your regular stereo tapes and FM stereo broadcasts, too! See and hear the Lafayette LA-524 Quadnaural Auxiliary Amplifier at your nearest Lafayette location. At the same time, ask to see and hear our complete line of quality speaker systems.

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P.S. May 1972

CIRCLE NO. 31 ON READER SERVICE CARD

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*T.M. of Columbia Broadcasting System, Inc.
Advent loudspeaker, in a vinyl-clad walnut-finish cabinet, sells for $69.95.

- **Laboratory Measurements.** In our tests, the averaged acoustic output of the Smaller Advent speaker varied less than ±3 dB between 120 and 13,000 Hz, which is an uncommonly smooth response. It appeared to fall off rapidly above 13,000 Hz—perhaps because our microphone cuts off above 15,000 Hz. At the lower frequencies the output rose somewhat to a broad maximum of about +5 dB in the 60 to 70-Hz region. It did not fall below the mid-range level until we reached 32 Hz. Overall, this frequency response would be noteworthy in a speaker system of any size (or price).

  The bass harmonic distortion, at a 2-watt drive level into 4 ohms, was moderately low down to 40 Hz, reaching 5 per cent at 38 Hz and 10 per cent at 33 Hz. The limited low-frequency power-handling capability of the speaker was evident in the substantial increase in distortion at a 10-watt drive level, where it was at least 3 per cent at all frequencies below 100 Hz, and reached 10 per cent at 35 Hz, which is still very respectable.

  The system impedance reached its 4-ohm minimum in the 100-Hz region and between 5,000 and 11,000 Hz. It had a 15-ohm impedance at 850 Hz, and a bass-resonant rise to about 20 to 25 ohms around 45 Hz. Tone bursts were reproduced faithfully at all frequencies.

- **Comment.** We made “A-B” comparisons of the Advent with several excellent speakers many times its cost. Using a wide range of program material, we could not, in many cases, detect any difference in sound quality when switching between speakers. In respect to balance, low-frequency solidity, clarity, and definition, the Smaller Advent ranked with some of the best, lacking only the very wide high-frequency dispersion present in a few of the finest speakers.

  In the simulated “live- vs.-recorded” listening test, it earned a solid “A" rating, with the only difference between its sound and that of the original program being a minute shift in mid-range balance and a trace of dulling of wire brushes and similar instruments with output in the 15,000-Hz region. In any case (and, indeed, when judging any speaker), there is no substitute for actually hearing the Advent system side by side with any other speaker of your choice. Even if you are not as impressed as we were, any preconceived ideas you may have about the limitations of sub-compact speaker systems will, we think, be shattered.

*For more information, circle 106 on reader service card*
We doubt that anyone will be overly surprised to learn that our newest loudspeaker sounds terrific. Most people really expect KLH to make terrific sounding things. But at $62.50 a piece, our new Model Thirty-Eight delivers an amount and quality of sound that we think will astonish even our most avid fans. The bass response is absolutely staggering; the transient response is flawless; and the Thirty-Eight's overall smoothness matches anything we've ever heard. Most important, you can use a pair of Thirty-Eights with virtually any modestly priced receiver. What good is an inexpensive pair of loudspeakers that need a $400 receiver to effectively drive them?

The Thirty-Eights are at your KLH dealer now. After hearing them, we think you'd pay $125 for just one. But $125 buys you two. Which has got to make the Thirty-Eights the biggest stereo bargain since ears.

For more information, visit your KLH dealer or write to KLH Research and Development, 30 Cross Street, Cambridge, Mass. 02139.

The New KLH Model Thirty-Eight.
Two for $125.
above them, in red, when a stereo broadcast is received.

To the right of the dial face is the tuning knob, which operates a notably smooth flywheel mechanism, and three pushbuttons to control FM interstation muting, high-frequency blend for noise reduction on weak stereo FM signals, and the automatic stereo/mono selection circuit.

In the rear are all the usual inputs and outputs, speaker and line fuses, and the AM ferrite-rod antenna. The preamplifier outputs and main amplifier inputs are brought out to separate jacks normally jumped by short links. These provide a convenient place to insert a quadrasound decoder or other accessory without interfering with the normal tape-monitoring facilities. There are two a.c. outlets, one of which is switched. The Harman-Kardon 930 is 16⅝ inches wide, 5½ inches high, and 15 inches deep; it weighs 30 pounds. It is supplied with a black metal cover, and an optional wooden cabinet is available ($34.95). Price: $399.95.

**Laboratory Measurements.** The audio amplifiers of the 930 receiver proved to be exceptionally good—very much in the class of high-quality component amplifiers. At the clipping point they delivered 53.5 watts per channel to 8-ohm loads, 65.5 watts to 4 ohms, and 37.2 watts to 16 ohms. This is excellent for a receiver rated for 45 watts, but still not unheard of. However, the harmonic distortion at power levels from 4.5 to 45 watts per channel, at any frequency from 20 to 20,000 Hz, was always well under 0.1 per cent, and was typically about 0.03 per cent. For a 1,000-Hz test signal, the distortion was below the noise level until 10 watts output was reached, where it was 0.027 per cent. It stayed at that level, or below, until we reached 50 watts, where it was 0.047 per cent.

The intermodulation (IM) distortion was between 0.075 and 0.1 per cent from 0.1 watt to beyond 50 watts. We also measured IM distortion at very low power levels, where the signal-generator's residual distortion of 0.5 per cent is included in that figure. The ultimate FM signal-to-noise ratio, at 1,000 microvolts, was about 69 dB—a better than average figure. Alternate-channel selectivity was superior, exceeding the 100-dB limit imposed by the maximum output of our signal generator's residual distortion of 0.5 per cent is included in that figure.

The stereo-FM frequency response was perfectly flat from 30 to several thousand Hz, and was down only 1 dB at 11,000 Hz and 2.7 dB at 15,000 Hz. The stereo separation was outstanding (thanks to the IC multiplex circuit), exceeding 22.5 dB from 30 to 15,000 Hz, 30 dB from 90 to 12,500 Hz, and 35 dB from 350 to 8,000 Hz.

The AM tuner had a frequency response and sound quality slightly better than average, although, like most we have seen, it fell well short of "hi-fi" standards. The response was ±4 dB from 40 to 4,500 Hz and was almost perfectly flat between 150 and 2,500 Hz.

**Comment.** With a combination of a top-flight FM tuner and an audio amplifier of considerably better than average quality, the Harman-Kardon 930 receiver could hard

(Continued on page 32)
Our receivers have something you’ll never hear. Our amplifiers.

Because our amplifiers don’t have those circuits that can distort the sound. We took out the input transformer, the output transformer, and the output capacitor. Now the amplifier circuit is coupled directly to the speaker terminals. So you get less than 0.5% distortion. In all Panasonic FM/AM, FM stereo receivers.

We call this new system direct-coupling. It improves transient response and damping. So cymbals go clash instead of pop. And a high C doesn’t sound like a screech.

We offer you this more direct route in 4 different receivers. Starting with the SA-5500 and its 70 watts of music power (IHF). Plus features we put in our more expensive models. A high-filter switch. A loudness switch. Two 4-pole MOS FET transistors. To pull in stations you thought were out of reach. Even an FM muting switch to cut down on interstation noise. When you put all this in numbers, it means 1.8μV FM sensitivity and a frequency response of 20-50,000 Hz=1dB.

The SA-5500 also makes tuning easier with a linear-dial scale to separate FM stations. A sensitive tuning meter to measure signal strength. And dual-tone controls for custom-blended sound.

If all this isn’t enough, we have models with even more features and power. You can move up to 100 watts with the SA-5800. Or take another step up, and get 150 watts of power on the SA-6200.

But if you want the most, there’s the SA-6500. It has 200 watts of power. Plus features that the leading receivers in this price range can’t match. Like a power bandwidth of 5-60,000 Hz. A crystal filter in the FM IF Amp. A Lumina-Band dial that lights up. Two 4-pole MOS FET transistors. And, of course, direct coupling. Besides all that, the SA-6500 gives you a low-filter control. Two tuning meters. And linear-sliding controls for bass, treble, volume and balance.

You can hear all our receivers at your franchised Panasonic Hi-Fi dealer. But it’s not just what you hear that counts, it’s what you don’t hear.
ly fail to deliver superior sound—and it did, while driving high- and low-efficiency speakers at any level.

We were impressed with the 930's FM muting action. Harman-Kardon has done it a little differently, with a system that gradually increases the audible signal level as one approaches the center of the channel and decreases it when the center has been passed. There is still considerable latitude in the center (or maximum-volume region), and the meters are useful as a guide. But we found it easy to tune accurately by ear. Since nothing at all is audible until the receiver is tuned within the low-distortion re-
gion, there are no distracting noises while tuning. The muting-threshold adjustment (accessible through the bottom plate of the receiver) can be set over a wide range.

Summarizing, in almost every respect the Harman-Kardon 930 performs as well as any receiver we have tested. In some areas it is a little better than its competitors, and in others it has few peers. The total result is an outstanding product, fully able to compete with, and often to surpass, many far more expensive combinations of component tuners and amplifiers.

For more information, circle 107 on reader service card.

Wollensak 4760 Stereo Cassette Deck

The 4760 stereo cassette deck is the top model in the Wollensak line. Besides the excellent Wollensak cassette-transport design, on which we commented at length in a previous report (November 1970), it employs Dolby noise-reduction circuitry that can reduce hiss added during the record-playback process by as much as 10 dB.

Two large push keys, labeled PLAY and STOP, are the basic operating controls of the 4760. These are located side by side at the far right of the transport, where they can be operated conveniently by two fingers of one hand. A smaller, round RECORD button must be pressed (against a rather stiff spring) along with the PLAY button to put the machine in the record mode. Between them is the PAUSE lever. When pulled toward the front, the lever stops the tape instantly; it locks in place when moved to the right. Being spring-loaded, the lever snaps readily back when pushed to the left, setting the tape instantly in motion. An automatic-shutoff mechanism releases the PLAY button and disengages the tape-drive mechanism at the end of the tape. The main power switch—which is a small sliding plate with fingertab—is interlocked with the PLAY and STOP controls. If the recorder is not already switched on, pushing the PLAY button does it.

The very fast wind and rewind modes of the Wollensak 4760 are controlled by a single nonlatching lever, lightly spring-loaded to return to its center (neutral) position when released. Pushing it to the right or left moves the tape rapidly in the same direction. The cassette is loaded into an open well on the top of the deck, where it is completely visible during operation. An adjacent EFFECT lever pops the cassette up when it is pulled forward. To the left of the cassette is a three-digit index counter with push-button reset and two illuminated record-level meters that can be set over a wide range. The Wollensak 4760 measures 13% inches wide, 9% inches deep, and 4% inches high; it weighs 13 pounds. Its price is $279.95, and an accessory microphone preamplifier (Model A-0559) is $29.95.

Laboratory Measurements. The 4760's playback frequency response, measured with BASF and Nortronics test tapes, was flat within ±0.5 dB from 300 to 10,000 Hz, rising gradually at low frequencies to a maximum of +4.5 dB at 40 Hz. The overall variation in response, from the 31.5 to 10,000-Hz limits of the test tapes, was within ±2.5 dB.

The bias and equalization of the Wollensak 4760 are factory set for 3M High Energy tape, with which we measured the record-playback frequency response. It was exceptionally wide and uniform—within ±2.5 dB from 30 to 16,000 Hz. Effectively, it was even flatter than these figures would suggest, since most of the response variation took place below 100 Hz and resulted from playback-head fringing effects. From 100 to 15,000 Hz the response varied only about ±1 dB. With Ampex CrO tape (and the machine's TAPE switch in the appropriate position) the response was not quite as flat as with the 3M High Energy tape, but it still fell well within the limits of ±2.5 dB from 31 to 15,000 Hz. The Dolby circuits had a negligible effect on frequency response with either tape type. We also measured the record-playback response with TDK SD tape and the TAPE switch in the ferric-oxide position. As expected, this produced a smooth high-

(Continued on page 34)
From Rock to Bach in 0.25 Seconds

Sony can't stop those little family arguments. But we can make them more worth winning. And a flip of Sony's unique, knob-and-lever dual selector switch gets the winner into the music of his choice just a little quicker than an ordinary, single-knob selector. Because until your fingertips unleash the STR-6065 receiver's performance, it might as well not be there.

So we didn't just engineer our circuits and our switches. We human-engineered them. For instance, in normal FM-stereo operation, all the 6065's levers make a neat row, and all its knob indexes point straight up; any control that's out of place shows up immediately.

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

With performance this accessible, the 6065 had better perform. And it does: 2.2 uV IHF sensitivity ("1.9 uV," says Julian Hirsch) gets you the weak FM signals; an FET front end prevents overload from strong ones. And our high selectivity makes tuning easier. If you find those stations easier to listen to, you might also credit our direct-coupled amplifier circuitry. It's supplied with both positive and negative voltages (not just positive and ground), so we don't have to put a coupling capacitor between the speakers and the amplifier. And, so that we can maintain full power (255 watts IHF, 160 watts RMS into 4 ohms; 220 watts IHF, 140 watts RMS at 8 ohms) or all the way down to 20 Hz at 50 watts RMS per channel.

Which brings up another way we made the 6065's performance more accessible to you: the price. And if its moderate price isn't accessible enough, we also make a lower-priced model, the 6055. Its power is a little less (145 watts rather than 255 watts) as is its rated sensitivity (2.6 uV instead of 2.2). But its otherwise almost identical.

So perhaps we can solve those family squabbles after all: a 6065 for yourself, and a 6055 for your son.

Sony Corp. of America, 47-47 Van Dam St., Long Island City, N.Y.

SONY®6065 / 6055
frequency rise beginning at about 5,000 Hz and reaching +4 dB at 14,000 Hz. The resulting slight treble emphasis could be readily corrected if necessary by the tone controls of most amplifiers and receivers, with a corresponding reduction in hiss as a bonus.

An input signal of 0.029 volt was sufficient to produce a 0-VU recording level, and the resulting playback output was 0.56 volt. Harmonic distortion for a 1,000-Hz signal recorded at 0 VU was 2.7 per cent with 3M High Energy tape, and 2.2 per cent with CrO₂ tape, which required a +3-VU input to reach 2.9 per cent distortion. The signal-to-noise ratio, referred to a recording level that produced 1 per cent distortion at 1,000 Hz, was 52.5 dB with the 3M tape and 56.5 dB with the CrO₂ tape. Using the Dolby system, the corresponding figures were extraordinary 59.5 and 61.5 dB. The noise measurements were made over a bandwidth of 250 to 20,000 Hz to exclude ultrasonic and low-frequency noise. It should be noted that these noise figures are at least as good as we have ever measured on any cassette deck.

The unweighted flutter was 0.2 per cent, a typical value for a good cassette mechanism, and it was inaudible under any but the most critical circumstances. The fast forward and rewind of the Wollensak transport were about twice as fast as we have measured on other cassette machines—except, of course, for those that use the same deck. In fast forward, a C-60 cassette was handled in 45 seconds, with 43 seconds required for rewind.

Comment. The Wollensak 4760 clearly ranks among the best machines of its type we have encountered. Using the Dolby system, we recorded programs from wide-range disc recordings and made A-B playback comparisons against the original discs. With the 3M High Energy tape, the frequency response sounded perfect, with no discernible change introduced by the recording and playback processes. We could detect a minute increase in hiss, but only during quiet passages, played at high listening levels with very wide-range loudspeakers. With chromium-dioxide tape we could discern no noise added to the program, and no change in the audible frequency content or balance.

Although it is a purely personal and subjective reaction, we thoroughly approve of the control arrangement of the Wollensak transport mechanism. The use of several sizes and shapes of operating levers and buttons, physically grouped by function, permits the machine to be operated entirely by "feel," with no need to remember the control sequence or to read the panel markings. From out tests, it is evident that the Model 4760, although admittedly expensive, is plainly representative of the state of the art in cassette technology. It can record and reproduce the quietest disc recordings—and, of course, FM broadcasts—without in any way affecting their sound or noise level. And this, after all, is the most any user could expect of any recorder, and more than many are able to deliver.

For more information, circle 108 on reader service card

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The new Revox A77 Mk III.

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

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

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

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

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

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

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

ReVox delivers what all the rest only promise.
The Ultimate Speaker System

**Q.** I would like your opinion on assembling the ultimate speaker system. I have access to a number of JBL drivers and construction plans for the Electro-Voice Patrician 800 cabinet. I was thinking of making one of these enclosures and using the JBL drivers. However, I have the problem of which crossover to use. Can you advise me on this?

**A.** You have many more problems than the crossover frequency, Mr. Thompson. Speaker systems have to be designed as an integrated whole, and good results can rarely, if ever, be attained by installing drivers with good specifications in a box whose acoustic characteristics are unlikely to complement the needs of the speakers. If you have a well-equipped laboratory, including an anechoic chamber, then you could test the performance of different makes of drivers and various crossover frequencies installed in a variety of cabinets. However, anyone who has been involved in speaker-system design knows what a tedious, cut-and-try procedure it is, even when all the testing equipment is available to validate objectively whatever results you think you are hearing.

In short, fool around if you will, but don't assume that the results you achieve, even though they may satisfy your ear, are the equal of what is achieved by a good commercial speaker system selling for substantially less than the cost of the components of your home-built one.

Unequal Tape Frequency Response

**Q.** I recently noticed that the playback frequency response in one channel of my three-head stereo tape recorder does not have as good a high-frequency response as my other channel. A friend who has access to an Ampex test tape checked my machine and said that his test confirmed what I heard in that the playback response sloped off badly above 8,000 or 9,000 Hz. He then aligned the playback head and was able to get the response up to about 15,000 Hz, but now the other channel slopes off as badly as the first one did. What is the problem—and more important, what is the solution?

**A.** It appears that your recorder is suffering from non-colinearity of its head gaps. In such a case, you will never be able to get the azimuth of both the right- and left-channel head gaps simultaneously aligned for optimum high-frequency performance when playing back any tapes.

You have a choice of either adjusting the head for some compromise alignment that will produce an equal loss of high frequencies in both channels, or writing to the manufacturer and complaining. Non-colinearity would qualify as a manufacturing defect, and it is possible that you can get the manufacturer to send you a replacement head, since your friend seems competent to install it for you.

Old Kit Repair

**Q.** I was recently given an old stereo tube power amplifier that I would like to use for powering my rear channels. The former owner of the unit said that he built it from a kit and it was working fine when he retired it in favor of a transistor job about five years ago. However, when I hooked it up it seemed...
unusually sensitive to vibration: simply tapping the chassis caused intermittent hum and crackling in the speakers. Also, the input level controls and switches are very noisy. Is the unit worth fixing, or should it be junked?

Peter Godfrey
Los Angeles, Cal.

A. If you haven’t already done so, I would say that your first step is to test and, if necessary, replace any tube that tests “weak.” When each tube is in the tester, tap it gently several times. If the tester reading changes or the “short” light flashes, reject the tube. The second step, which will probably eliminate most of the hum and static, is to tighten the screws and nuts holding down the printed-circuit boards. Also, tighten all the screws and nuts holding the terminal strips, input jacks, transformers, and so forth to the chassis. In most kit amplifiers, these nuts and bolts loosen up with time—or perhaps were never properly tightened originally. The proper electrical grounding of many sections of the circuit depends on having these components in firm mechanical contact with the chassis.

You will probably find two or more tubular filter capacitors (cylindrical objects, perhaps 2 to 3 inches tall) with one end fitted into cutouts in the chassis or in a metal supporting plate. These electrolytic capacitors may or may not have cardboard insulation on them; they will have from 4 to 8 terminals on the end that is inserted through the chassis or plate. It’s important that the screws holding the plate be tight. If the capacitors are held in place by having their prongs twisted through slots in the metal chassis, be sure they are securely locked in place.

As for the noisy controls, a shot of TV-tuner cleaner spray (available from any radio or electronics parts supplier) will cure that problem. It might not be a bad idea to spray a little cleaner in the tube sockets also, to help remove any oxidation from the tube pins and the socket contacts.

It would also be worthwhile to inspect all the soldered connections carefully to make sure they were originally made properly. A poorly soldered connection might serve for years without giving trouble, but the passage of time will ultimately cause oxidation and impair electrical contact. Any connections that look suspicious—particularly those that have several wires going to one lug or solder point—should be resoldered.

If the above suggestions do not solve the problem, and you are not competent to go further on your own, a professional audio repairman is your best bet. However, I would suggest you get an estimate on the job first, since his legitimate service charges may exceed the value of the amplifier to you. 

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THE TURNTABLE QUESTION

Among the many decisions confronting a turntable buyer, there is one in particular that invites confusion: automatic changer or single-play manual? Everyone must be familiar with the changer, which is usually supplied in portables and consoles. The high-fidelity version, which superficially resembles it, takes up to eight discs (rarely more) stacked on a tall spindle rising from the center of the rotating platter, and plays the top side of each in an automatic sequence. After the last, the mechanism shuts itself off. Today’s audiophile single-record player is often a “semi-automatic” with a tone-arm lift and return mechanism that acts at the end of a disc, but for our purposes, a record player that takes only one disc at a time is generically a “manual.”

The confusion arises when we wonder: Why would anyone voluntarily forego the conveniences of an automatic, especially when most of them provide all the basic operating facilities of the manuals as well? There is, I am sure, no single answer. Many audiophiles are drawn to the solid, professional appearance of the large manuals, as well as to some of the special design features that are still rare on automatics. The real enthusiast may want to use one of the elaborate tone arms sold separately by a few manufacturers, and so chooses a manual that comes without an arm. Others point to differences between the two types of turntable that go deeper than the skin. For example, it is vital that the rotating platter of a high-fidelity turntable be isolated from mechanical vibration—whether originating in the motor, the platter support bearings, or external influences—that will be picked up by the phono cartridge and ultimately emerge from the speakers as an annoying low-pitched sound (rumble). Many manuals are driven by a circular belt, one end of which loops around a large circumference of the platter, with the other engaging a physically remote drive pulley, usually on the motor shaft. This system, when properly designed, provides excellent isolation from motor vibration. The automatics, however, have to labor under the additional mass of a record stack and the power demands of the changing mechanism. So, in general, they must employ husky motors and a drive system affording less chance of slippage during play and change. This is usually accomplished by using a rubber puck or “idler” that couples the motor-shaft pulley directly to the inner rim of the platter.

You may find any or none of these considerations persuasive. The rumble question once had some real validity, but the better modern automatics have rumble figures at about the same level as the manuals, as evidenced by our laboratory tests. It’s also worth noting that operating-speed change is more economically effected with the idler-drive system, so that an automatic is likelier to have the full complement of speeds—16 2/3, 33 1/3, 45, and 78 rpm—than a manual with its more usual 33 1/3 and 45 rpm only. Even price may not be a factor, since both types run the gamut from under $100 on up. Perhaps next month’s more detailed discussion of the subject will simplify your decision-making.
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CIRCLE NO. 16 ON READER SERVICE CARD

GOING ON RECORD
By JAMES GOODFRIEND
Music Editor

THE CLASSICAL MARKET

Though concern is still voiced in the concert and record industries about the shrinking—or, at least, not growing—audience for classical music, not much has been uncovered about just who that audience is. Perhaps it would be an undertaking beyond the capabilities of the interested parties to stop each and every record buyer and ask, “Who are you, what record did you buy, and why did you buy it?” But there are other, easier ways of deriving information.

Trade magazines periodically publish lists of the best-selling classical records similar to the “charts” that are so much a part of the pop business. The classical charts have often been criticized by insiders for inaccuracy, but even if one takes them as merely rough estimates on the part of retailers of what they will sell, there is something to be learned from them—and that something may not be a “what,” but a “who.”

From a recent list of forty best-selling classical L.P.’s, a little experience and induction produces a list of nine kinds of record buyers, falling into two major groups. The buyers, of course, are identified not by profession, social status, or color of hair, but by what they buy. The two major categories are: (1) the **cogno-voros**—serious, informed buyers of classical music; and (2) the others—those with limited experience in the classics who will buy a classical record for one of a number of reasons.

Now, one of the indications that the classical record business is not as simple as it once was is that the first of these major groups does **not** dominate the charts. Logically, the best-selling classical records should be those most popular among people who commonly buy classical records. But this is now true only half the time. Conversely, an indication that the **second** group of buyers is not really so large as some imagine it to be is that it does not dominate the charts—in particular, the top of the charts—either. The numbers of actual buyers, it turns out, are really just about equal.

Within the first category are three distinct groups. First, there are the classical buyers **per se**, those who can be expected to buy a disc of not too _out of the musical_ work on the basis of outstanding interest and quality. The second group is that of opera fans, who buy almost exclusively operatic records, and who will jump at any new, high-quality record in that field. Since the second group is more concentrated in its interests than the first (there are fewer records among which to choose), they pull more weight per buyer in the charts. The third group is of trend and novelty buyers, in the more sophisticated sense. They are the first people to buy, for example, such off-beat repertoire as the Scriabin _Poèmes_ or the Scott Joplin piano music, and when there is general agreement among them as to which of the more unusual releases is of real interest, their weight can be felt in the market place.

The less sophisticated group itself comprises six subdivisions. The first consists of “minimal repertoire” buyers and sound freaks. Everyone, of course, is familiar with the latter group. For the former, the term “minimal repertoire” has been coined to cover those who are always willing to buy a _Grand Canyon Suite_, an _1812 Overture_, an _unexceptional_ recording of _Messiah_, and a few similar works so familiar as to be old hat even as basic repertoire, and to buy them not for the sound, but for the music.

The second group, the obverse of the first, are the “Greatest Hits” fans. Though the first buy only what is to them already as familiar as an old shoe, the second have little or no familiarity with the music and must be assured that they are buying only the right thing—_i.e._, greatest hits.

The third group is made up of personality freaks, those to whom repertoire (as long as it is conservative) is secondary, and the important factor is
the performer's name. He alone is trusted to offer them the only music they ought to hear.

Somewhat allied to the third group are the fourth and fifth, respectively, the motion picture freaks and the TV freaks. The former buy film scores made up of classical selections, and the more sophisticated among them buy the full classical works from which the film scores have been derived. The latter buy the soundtracks of what they have seen on TV (when such are available) or records with strong television associations.

The nonsophisticates are rounded out by their own category (No. 6) of trend and novelty buyers, which sometimes overlaps with the sophisticated trenders, but more often fastens on a choice of its own. This is usually a more obvious and elementary kind of music, though quite as far from the basic repertoire, basically performed. The Moog records are an excellent example.

Out of forty LP's listed on a recent compilation, the above nine categories of buyers can account for thirty-nine of them, the sole exception (Philips' "The Last Night at the Proms") being also something of a novelty item, but for so specialized a taste as to lead one to think that some other factor was operative.

What this brief examination shows is, simply, that the classical market is by no means homogeneous; that it is, rather, made up of at least nine small markets, some of them actual and continuous, some existing as potential only—until the right record comes along. No one of these markets is so much bigger than the others that it can dominate the charts, although the number of records competing for the attention of one—say, the all-round classical buyer—is considerably larger than the number competing for the attention of another—the TV freaks, for example. A record that can attract the attention of two or more of these groups has, obviously, a strong advantage in sales. Few do, however.

Record companies are free to make of this what they choose. If I were a record company I would choose to make of it an excuse to find out more about the audience I am trying to sell records to—not to make my artistic decisions for me, but at least to tell me whether I am releasing something for art's sake alone, or if there is a chance that I'm going to make some money out of it.

Those who know their music only from records have not yet heard of the Cleveland Quartet. They will. At a recent concert at Hunter College in New York this group demonstrated the kind of musicianship that one dreams about and too rarely hears. Only two years old, they are, in my opinion, one of the finest quartets in the world. They are bound to be recorded soon. Watch for them.
The 4-channel Sansui MQ2000 is not a second-class component system.

It's a first-class compact.

Sansui has never made anything but components until now. So our engineers just couldn't break the old habit when we asked them to come up with a four-channel compact. They took the ingredients of a state-of-the-art component system and packed them into a single housing, then crowned them with an acclaimed, first-line automatic turntable and magnetic cartridge.

The MQ2000 complete four-channel music center. It's an AM/FM receiver. A decoder for all compatibly matrixed four-channel recordings and broadcasts. A four-channel synthesizer for your entire collection of conventional stereo records, as well as for regular stereo broadcasts. It can handle any discrete four-channel source, taped or otherwise, and can take any adapter for any future four-channel medium that might come along.

Total IHF music power: 74 watts. FM sensitivity: 5 microvolts IHF. Normal-level response: 30 to 30,000 Hz ±2 db, with harmonic or IM distortion below 1% at rated output.

The automatic turntable is Perpetuum Ebner's Model 2032 with calibrated stylus-force adjustment, variable-speed control, damped cueing, anti-skating and a host of other features. The cartridge is Shure's M75-6, specially recommended for four-channel discs.

The speakers are Sansui's exciting new AS100 two-way acoustic-suspension designs. Not scaled-down performers made just to go along with a package, but full-fledged performers in their own right—regular members of Sansui's new AS speaker line. Two of them come as part of the package, because most people already have a stereo pair, but you can match up another pair of Sansui's regular line, if you wish, for a perfectly balanced system. Wait till you hear this at your franchised Sansui dealer!
It sounds like reel-to-reel.
It looks like cassette. It is.

It is the new Sansui SC700.

Close your eyes and your ears tell you you're listening to a reel-to-reel deck of the highest caliber. Open your eyes and you know that cassette recording has finally made the grade.

The performance-packed, feature-packed SC700 Stereo Cassette Deck incorporates Dolby noise reduction, adjustable bias for either chromium dioxide or ferric oxide tapes, three-microphone mixing and specs that will make your eyes—as long as they're open—pop even wider.

Undistorted response is 40 to 16,000 Hz with chromium dioxide tape and close to that with standard ferric oxide tape. Record/playback signal-to-noise ratio is better than 56 to 58 db with Dolby in—and commendably better than 50 db even with Dolby out! Wow and flutter are below 0.12% weighted RMS.

A DC servo motor (solid-state controlled) assures rock-steady speed. The tape-selector adjusts both bias and equalization for ferric-oxide or chromium-dioxide formulations. The large, slant-panel VU meters are softly illuminated. Contourless heads keep response smooth, and a head gap one micron narrow brings high-frequency output right up to reel-to-reel standards.

With so much in its favor, Sansui engineers decided it deserved all the features of a first-rank open-reel deck, and more: Pause/edit control, 3-digit tape counter. Separate record/playback level controls (independent but friction-coupled). Automatic end-of-tape shut-off with full disengagement and capstan retraction . . . and much, much more.

The SC700 is practically a self-contained recording studio. Which makes it quite a bargain at $299.95.
After the monthly breakthroughs and revolutions in speaker design, how come the Rectilinear III still sounds better?

Figure it out for yourself.

More than five years ago, without much fanfare, we came out with a very carefully engineered but basically quite straightforward floor-standing speaker system. It consisted of six cone speakers and a crossover network in a tuned enclosure; its dimensions were 35" by 18" by 12" deep; its oiled walnut cabinet was handsome but quite simple.

That was the original Rectilinear III, which we are still selling, to this day, for $279.

Within a year, virtually every hi-fi editor and equipment reviewer went on record to the effect that the Rectilinear III was unsurpassed by any other speaker system, regardless of type, size or price. (Reprints still available.)

Then came about forty-seven different breakthroughs and revolutions in the course of the years, while we kept the Rectilinear III unchanged. We thought it sounded a lot more natural than the breakthrough stuff, but of course we were prejudiced.

Finally, last year, we started to make a lowboy version of the Rectilinear III. It was purely a cosmetic change, since the two versions are electrically and acoustically identical. But the new lowboy is wider, lower and more sumptuous, with a very impressive fretwork grille. It measures 28" by 22" by 12 1/4" deep (same internal volume) and is priced $20 higher at $299.

The new version gave Stereo Review the opportunity to test the Rectilinear III again after a lapse of almost five years. And, lo and behold, the test report said that "the system did an essentially perfect job of duplicating our "live music" and that both the original and the lowboy version "are among the best-sounding and most 'natural' speakers we have heard." (Reprints on request.)

So, what we would like you to figure out is this:

What was the real breakthrough and who made it?

For more information, including detailed literature see your audio dealer or write to Rectilinear Research Corp., 107 Bruckner Blvd., Bronx, N.Y. 10454.

Rectilinear III
In 1844, Les Quatres Éléments, a large-scale cantata by the thirty-three-year-old Franz Liszt on a text by a writer named Joseph Autran, was produced at Marseilles. Liszt had serious misgivings about Autran’s banal text and hoped that he might secure a new text from Victor Hugo, who had supplied the literary inspiration for Liszt’s first symphonic poem, Ce qu’on entend sur la montagne. Hugo, however, did not respond this time, so Liszt put the score aside and turned to other composing projects.

Ten years later, in Weimar, Liszt went back to the cantata, which had never been published, and borrowed thematic material from it for his third symphonic poem. He titled the resulting score Les Préludes and, after the fact, associated it programatically with the fifteenth of the Méditations poétiques by his friend the poet Alphonse Lamartine. In the score, Liszt furnished a paraphrase of Lamartine’s poem:

What is life but a series of preludes to that unknown song whose initial solemn note is tolled by Death? The enchanted dawn of every life is love; but where is the destiny on whose first delicious joys some storm does not break?—a storm whose deadly blast disperses youth’s illusions, whose fatal bolt consumes its altar. And what soul thus cruelly bruised, when the tempest rolls away, seeks not to rest its memories in the pleasant calm of rural life? Yet man allows himself not long to taste the kindly quiet which first attracted him to Nature’s lap: but when the trumpet gives the signal he hastens to danger’s post, whatever be the fight which draws him to its lists, that in the strife he may once more regain full knowledge of himself and all his strength.

Notwithstanding that the conception of Liszt’s music had absolutely no connection with the Lamartine poem, there have been commentators who have found a direct pictorialization of Lamartine’s images in the Liszt score—an interesting example of the power of suggestion.

Structurally, Les Préludes is basically an introduction and allegro. Following two pizzicato notes in the low strings, there appears a serpentine theme, always reaching upward, that is to become the melodic foundation of the entire work, transmuted and metamorphosed in accordance with Liszt’s principle of “thematic mutation.” The two other major episodes in the work are a graceful Allegretto pastorale in 6/8 time and a vigorous Allegro marziale.

Liszt went on to compose ten more symphonic poems after Les Préludes, but, apart from such special instances as Pierre Boulez’s “Liszt Retrospective” during the New York Philharmonic’s past season, one seldom hears any of the others in the concert hall. The reason for this has been quite clearly stated by that jack of all musical trades, Nicolas Slonimsky: “Les Préludes is the greatest and most perfectly constructed symphonic poem of Liszt’s creation.”

Some forty years ago or so, Willem Mengelberg and the Amsterdam Concertgebouw Orchestra recorded a performance of Les Préludes that was one of the classics of pre-World War II disc literature. The fire and passion Mengelberg brought to the score were absolutely unique, and he transmitted his white-hot inspiration to every member of the orchestra. The performance enjoyed a very brief resurrection in Columbia’s Entré line in the late 1940’s, but it has long been deleted. It should again be made available to collectors of the present generation; no other performance of Les Préludes I have ever heard rivals Mengelberg’s in impact.

Of the dozen or so currently available recordings of the score, my own favorites are those conducted by Arthur Fiedler (RCA LSC 2442), Bernard Haitink (Philips 839788) and—intermittently—Zubin Mehta (London CS 6529). Mehta’s performance (with the Vienna Philharmonic) is much more individual than either Fiedler’s or Haitink’s: he bends and shapes the music to his own purposes in a style sometimes reminiscent of Mengelberg’s way with the score. But whereas Mengelberg was able to convince one completely that his way, though wayward and capricious, made musical sense, one is conscious in Mehta’s recording of the frequent shifting of gears.

Both Fiedler and Haitink deliver more orthodox performances, but both have a sure feeling for the drama, surge, and search of the score. Both orchestras (the Boston Pops and London Philharmonic, respectively) play the work superbly, are well recorded, and offer other works of Liszt to boot. Either disc will afford its owner much pleasure.

In the reel-to-reel department, there are apparently only two versions currently available: a Karajan performance with the Berlin Philharmonic (DGG C 9037), with Mehta’s (London L 80197). I prefer Mehta’s way, flaws and all.
GETTING THE NOISE OUT OF YOUR SYSTEM

By Peter Sutheim

FEW THINGS will transform gentle, cultivated lovers of recorded music into wild-eyed paranoiacs faster than having their playback violated by unexpected pops, crackles, or maddeningly recurring buzzes. Less dramatic, but equally destructive of listening pleasure, are such sonic disturbances as unremitting background hiss or persistent hum.

Good manufacturers design their equipment so that it will generate a minimum of internal noise and be as insensitive as possible to externally produced noise. But economics and common sense dictate certain limits. No manufacturer can design his equipment to compensate for every possible noise-producing circumstance, so the burden of coping with some disturbances has to fall on the individual owner. What we hope to do here is to define the many forms of noise that home music systems are heir to, and to offer suggestions on what to do about them.

First, what is noise? Like dirt, it can be defined functionally as "matter in the wrong place"—that is, scrambled eggs in your hair, or hair in your scrambled eggs. Noise is any unpleasurable sound in the wrong place or at the wrong time. Further, from an engineer's point of view, noise need not even be audible: "snow" on a television screen is "noise." But here our concern is with electrical disturbances that end up as audible noise. Such disturbances fall into several categories, and merely being able to describe the noise symptoms precisely can improve the chances of an accurate diagnosis of the root trouble and provide a fighting chance for a cure. Your first step therefore is to consult the accompanying Noise Glossary (see page 48) to determine exactly what kind of noise your equipment is suffering from. Your second is to stay with us as we take each kind and explain its causes and its cures.

One general point first: any troubleshooting job is made easier if you are systematic about it. Listen as critically as you can, identify the noise by its type according to the Glossary, and then try, systematically, to establish other facts about it. For example, does the noise appear only when you use your record player? If so, does it crop up when the amplifier is switched to the phono input, whether or not the turntable is on? Whether or not you are actually playing a record? Only when you bring your hand
near the tone arm? Or when the arm is in a certain position? Does it appear only with certain records, or all records? Do any of the amplifier controls have an effect on the noise? Does it occur only at certain times of the day or with particular weather conditions, or when certain appliances in your house are operating? These are only a few examples of the questions you may have to ask in order to track down a troublesome noise. Whether the noise occurs in one channel or both can be of great diagnostic significance. Since stereo systems are actually made up of two (or more) mono systems that are electrically independent for the most part, the performance of one channel can be used as a check on the performance of the other. This may indicate whether a fault exists in the design of a component, in the external wiring connecting the components in the noisy channel, or comes about through a defect or breakdown.

**Tape Hiss**

Of all the many noises, hiss is one of the most common, perhaps ranking about even with hum. Hiss is, quite literally, the elemental, universal noise. It has no distinct pitch because it embodies all frequencies simultaneously, occurring randomly without rhythm or pattern. It is the audible expression of thermal agitation in the atoms of all matter in the universe, and it can never be reduced below a certain minimum. But, in a well engineered tuner or amplifier, it certainly should be low enough that it does not intrude audibly on the desired program.

The three most important sources of bothersome hiss in your system are these: tape recordings, tuners, and the preamplifier stages used with low-level signal sources (tape head, phono cartridge, or microphone).

Tape hiss is a problem that most people become aware of very shortly after they become interested in tape recording. It may be caused by limitations in the tape itself, but it is more often the fault of equipment that is poorly maintained, improperly operated, or defective. You can establish quickly whether the hiss you hear when playing tapes is on the tape itself or is being introduced in the recorder’s playback electronics. Play a tape at a volume level that allows you to hear the hiss clearly, and then operate the “pause” or “instant-stop” lever on your tape machine. If the hiss disappears, it’s on the tape; if not, at least part of it is in the playback preamplifier of your tape deck or amplifier. If the hiss is there whether or not the tape is moving, it is usually caused by a poorly designed or defective tape-head preamp. If the preamp is poorly designed, there is nothing to do but trade up. Replacement of transis-

tors may help a defective preamp stage, but that’s a job for the factory or one of its warranty stations.

Once a tape has built-in hiss (and many commercially prerecorded tapes do), you can, of course, reduce its annoyance by turning down the treble control on your amplifier or throwing in a high-cut (scratch) filter. But that’s likely to reduce high frequencies in the music somewhat, too. It is also possible that the hiss has been added to the tape itself not by the playback electronics of your recorder, but by residual magnetism in one or more of your recorder’s tape heads and guides. The cure is to use a tape-head demagnetizer as instructed, being especially careful to move the demagnetizer a couple of feet away from the machine before switching it off or unplugging it. If a commercial prerecorded tape is hissy when new, there is nothing you can do but complain to the manufacturer. Some abominably noisy tapes have been distributed, but the duplicating processes are getting better, and techniques such as the use of the Dolby noise reduction system have definitely lessened the problem.

If hiss is heard on all the tapes you make (but not necessarily when you are playing tapes made on other machines), and if demagnetizing the heads doesn’t help, other electronic malfunctions may be to blame. Recorded hiss can be caused by a defective or poorly designed bias/erase oscillator in a recorder, or by hiss generated in the tape machine’s record amplifier. If the hiss seems most objectionable when you use the microphone inputs of your recorder, the trouble may be originating in a noisy mike preamp. Or you may be using a low-impedance microphone to feed a high-impedance input. In the first case, repair may help, but it’s doubtful. Considerable improvement can sometimes be realized by using a separate good-quality microphone preamp or mixer and feeding its output into the “line” or “auxiliary” input of your recorder. (This won’t help, though, if your recorder is designed—as many inexpensive units are—so that the line-level input signal also goes through the preamp just like the mike signal. This can be determined only by inspecting the recorder or its schematic diagram.) If your hiss is the result of using the wrong kind of mike, either switch to a high-impedance mike or purchase a matching transformer for your old one.

Hiss on home recordings can also arise from using poor-quality tape. One of the the low-noise varieties may bring about a noticeable improvement. Tape quality is especially important in cassettes. Avoid “bargain” open-reel tape and cassettes if you want good recordings.

Another common cause of hiss in home-made tape recordings is operating at too low a recording
**NOISE GLOSSARY: WHAT DOES IT SOUND LIKE?**

- **Hiss** is a relatively steady sound of no definite pitch, like steam or compressed air issuing from a small hole, or like the last sound in the word "hiss." A faint hiss is often present in less-than-perfect disc or tape recordings, or behind the program material from a weak or distant FM station. It may originate in your equipment or in the program source.

- **Hum** is a low-pitched, steady sound, a definite musical note caused most often by the unwanted amplification and reproduction of 60-Hz (cycles-per-second) alternating current—your house current. (A pure 60-Hz tone corresponds closely to the note C two octaves below middle C, but hum as it is heard in sound systems is seldom as pure as that, being mixed with harmonics and miscellaneous noises.) Hum almost always originates in your equipment, unless you listen to bad recordings or radio stations getting by with poorly maintained equipment.

- **Buzz,** which may appear by itself or in the company of hum, has noticeably higher-pitched components in its sound—sometimes described as a bristly "zzzzzz" quality—that can help to pin down its source. It may originate within your system, or it may be introduced from outside.

- **Rumble** is the name for a very low-pitched noise, often of indistinct pitch and sometimes cyclical, that is most frequently heard when you play disc records or listen to program material the ultimate source of which was a disc. When the noise is in the recording itself—as it is with appalling frequency when nothing can be done about it except to use, judiciously, bass tone controls or a low-frequency filter. Rumble is most often caused by vibration of the rotating parts in a turntable, and will therefore be present with any and all records played on it.

- **Howl** could as well be called roar or groan, for it can be any or all of those things. It could also be described as a trumpeting sound that occurs only when you play records at a fairly high volume-control setting. It may build up and die away slowly, and it can change its pitch or tonal quality unpredictably. It is caused by acoustic feedback between speakers and turntable, and is related to the familiar squeal or howl that occurs when a public-address system is operated at too high a level, or with the microphone too close to the speakers.

- **Click, pop, and tick** describe short-impulse noises of no definite pitch. Everyone has heard the sound caused by a scratch or dirt on a record, but similar noises are sometimes caused by electrical phenomena outside your system.

- **Crackling, sputtering, or frying noises** are well named and need no further description. They may be continuous or may come and go randomly. Sometimes a similar kind of noise—best called *scraping* or *scratching* if it is not too loud—appears only when you are rotating a volume or tone control.

- **Rushing or bubbling sounds,** like a wet-steak leak or like air bubbling up through water, are sometimes superimposed as a musical rhythm. Such noises occur when the FM station you are listening to is broadcasting a background-music subcarrier ("SCA") for Subsidiary Communications Authorization (SCA); your tuner is not rejecting as it should.

- **Whistles, chirps,** and related sounds, sometimes varying in tempo with the music, can turn up when you tape record a stereo-FM program on an old or cheap tape recorder, or from an inferior or defective FM tuner or receiver.

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level. Some new recordists are so anxious to avoid overload distortion that they don't set their record levels high enough. The result is that the tape never gets enough signal to override the inherent noise—however low it may be—in the machine and tape. A good rule of thumb in respect to recording level is that your own tapes should play back at least as loudly as prerecorded tapes (and usually louder) when the playback settings are the same. It's worth experimenting with any tape recorder to determine what correlations exist between the record-level indicator, the audible distortion, and the hiss level. Machines (and tape) vary tremendously, and the 0-VU or "red-line" reading on the meter is not always as much help as it might be.

**FM HISS**

The presence of FM hiss is almost always the result of a station's reaching your tuner's circuits with insufficient signal strength—and it is always more evident when the tuner is receiving in the stereo mode. Switching the tuner to mono will reduce the hiss, along with other electrical noises, noticeably. If the signal is weak, the limiter circuits in the tuner cannot fully suppress atmospheric noise and noise generated in the early stages of the tuner itself. The first remedy to try—assuming that your tuner is of good quality and in reasonable shape—is a better antenna, or moving or reorienting the existing one. Experiment with the location of an indoor antenna, if that's what you have, or try an outdoor or attic antenna located as high as possible and away from trees and large metal objects or surfaces. If you are already using a rooftop antenna, consider increasing its height by adding mast sections, or use an antenna with directional—or more directional—properties. Highly directional antennas must be aimed fairly precisely at the station you are trying to receive: if they are not, they may deliver less useful signal to your tuner than a simpler antenna. The more directional the antenna, the more likely it is that you will have to use a rotator to aim the antenna for particular stations, unless all the stations you want to receive are in nearly the same direction.

It is possible that FM hiss is caused by damage or old age in your tuner or its antenna system. An antenna with bent or missing elements, one that's heavily coated with soot or corrosion, or a lead-in wire that's been exposed to weather for several years (with its insulation cracking and perhaps a break in its conductors) can seriously reduce the signal that reaches the antenna terminals of your tuner. A rooftop antenna should be examined every year or so, especially in the corrosive atmospheres of seacoast and industrial areas. The insulation of twin-lead (ribbon) wire deteriorates with exposure.
to sunlight and should be replaced every couple of years for best performance.

In the tuner itself, loss of alignment can noticeably reduce signal strength. (This is less of a problem in solid-state tuners than in tube tuners.) If your tube FM tuner has seen several years of daily use without tube replacement or alignment, it may be time for an overhaul.

**PHONO HISS**

If you notice a hiss only when you use your turntable, it is caused by noisy preamplifier stages in your amplifier or receiver. This is most likely a result of poor design or inadequate care in preselection of input transistors—both signs of a cheap piece of equipment. If one channel is noticeably hissier than the other—or has become so with time—replacing the input transistor in the noisier channel with a selected one or one of a different type may help, but this is a job for a professional.

There are some phono cartridges (usually the top-of-line models) whose output-signal levels are too low to give an adequate signal-to-noise ratio when used with low-cost amplifiers or receivers that have low-gain phono inputs. Here there is no cure other than to change to a higher-output cartridge or to a higher-gain amplifier.

One last hiss note: some audiophiles seek to test the low-noise properties of an amplifier by turning up its volume control fully (with no program material being played) and comparing the hiss level with that of some other piece of equipment. There are so many things wrong with this approach technically that there's no point in listing them. The correct technique is to play several recordings at normal listening levels, using a phono cartridge and speakers that would normally be part of the system. When a recording is interrupted (use the cueing lift lever on the turntable), hiss should be inaudible (or almost so) at your normal listening distance from the speakers. You should also be aware that a peaky speaker or phono cartridge (or an acoustically hard, "bright" room) can emphasize hiss, and those factors should not be ignored when evaluating the electronic aspects of a component setup.

**HUM**

About as common as hiss, hum is very different in sound, cause, and cure. It can intrude even when there is no direct connection to the 60-Hz a.c. line (battery-operated equipment is also susceptible to hum). The power-line wiring running in walls and under floors sets up a 60-Hz alternating field that can be picked up at considerable distances by a suitable "receiver"—for example, a short, unshielded, ungrounded piece of wire connected to the magnetic-phono input of an amplifier. It is for this reason that almost all signal-carrying cables in a home sound system must be shielded. This means that underneath the outer insulation of the cables interconnecting your tape recorder, tuner, record player, and amplifier there is a metal braid or wrap connected via the shell of the phono plug to the metal chassis of the components. These metal chassises should almost never be interconnected to each other by wires in addition to the shielded cable, except in the case of some record-player installations.

To begin systematically, the most likely causes of hum in an audio system are these:

- **Insufficient filtering in the power supply of the equipment**
- **Electrostatic pickup—an inadequately shielded audio lead or phono cartridge picking up hum from wiring in the walls, for example**
- **Induction from power transformers, a.c. electric motors, or other devices with a powerful magnetic field around them**
- **Ground loops**: these can occur whenever there are two or more grounded conductors (such as cable shields or ground wires) interconnecting two or more components. Hum arises because one ground point may be more, or less, grounded than another—and a 60-Hz voltage difference may therefore exist between them. If an amplifying circuit is connected to two ground points, one of which has a voltage potential referenced to the other, the amplifier will interpret the voltage as a signal and amplify it. This is a case where extra grounding can make matters worse rather than better!

Now, to specific instances of hum. Hum is most often annoying in connection with record players, because the very high amplification required for magnetic-phono cartridges and the bass boost needed to "equalize" the playback signal from records conspire to accentuate any 60-Hz currents picked up by the cartridge, by the connecting cables or by the preamplifier itself.

Setting aside for a moment the possibility of a defective amplifier, some likely causes of hum when playing records are motor-induced hum pickup via the cartridge, or some variety of ground loop involving the connections between the turntable unit and the amplifier (or receiver). The first situation is rather uncommon in quality turntables nowadays: at one time it wasn't unusual for the turntable motor to radiate a considerable magnetic field that could be intercepted by the cartridge (also a magnetic device) and turned into very audible hum. The quickest way to check out this possibility is to set up your system as though you were about to play a record, and with the turntable going, slowly swing the tone arm from the edge of the turntable platter to the center and back, just above its surface. If you notice
any increase or decrease in hum at a particular point in the swing, or a gradual buildup in either direction, your cartridge is picking up magnetically induced hum from something—possibly the turntable motor. Switch it on and off and note whether the hum changes. If so, the turntable unit and cartridge may be incompatible, hum-wise. But don’t throw them out yet. A reduction in hum loudness when you switch the turntable off or when you remove your hand from the tone arm could be a sign that you have ground-loop troubles or inadequate grounding instead.

In a very compactly installed system, hum could be induced in the phono cartridge from the power transformer of a nearby amplifier or tape recorder, or from the motor(s) of a tape recorder. The only way to be certain is to move them apart, leaving the connections intact. If induced hum is the cause, you will have to find a new physical arrangement for your components, or perhaps try a different make of cartridge.

Ground loops, which were once a major audio problem, usually do not occur if you follow the manufacturer’s interconnection instructions. However, if your system does suffer from ground-loop hum, it may be necessary to depart from orthodoxy in grounding your units. It may be best, for example, to keep the so-called “ground wire” supplied with a turntable unit carefully ungrounded: connecting it may complete a ground loop and thus increase rather than reduce hum. In rare instances, it may be necessary to interrupt a ground connection made at the factory between the turntable motor housing and the tone arm or the audio cable shields. Sometimes the metal case of the phono cartridge itself must be specially grounded to the (metal) tone-arm shell in addition to, or instead of, to the LG or RG pin on the cartridge. To make sure that you have a true phono ground-loop problem rather than a problem arising from a defective connection between your cartridge, the tone-arm shell, and the amplifier’s magnetic-phono input, it would be helpful to try your player with another amplifier, and vice-versa. And it may be advisable to write to all the manufacturers involved for their suggestions. Note that leaving the record-player ground wire unconnected to the amplifier does not involve questions of safety; it is there only as an aid in reducing hum in certain installations. If it fails to do that in yours, or if it aggravates the hum, leave it unconnected. (At least one turntable manufacturer has found that his design does not require a separate ground; the ground is part of his phono-cable assembly and is connected to the shell of one of the phono plugs.)

If hum appears only when you use other units than your record player—your tuner or tape deck, for example—the trouble can be due to ground loops, assuming that the units themselves are not defective. Again, the remedy is to interrupt the loop, possibly by slipping one or the other of the two audio plugs part-way out of their jacks.

Where ground loops persist, hum can sometimes be reduced simply by pulling the power plug of a particular unit out of the wall outlet, turning it 180 degrees, and plugging it in again. Doing this reverses the polarity connection to the power line. In installations where several interconnected components each have their own power cord going to a wall outlet, it may be necessary to try every combination to see if you can get a reduction in hum—with three plugs this would mean six combinations. Hum from ground loops can be particularly severe—and this cure correspondingly effective—when interconnected components are plugged into widely separate outlets, since outlets on opposite sides of a room or in different rooms are often fed from different house-wiring circuits and may therefore be at different ground potentials. Results are sometimes better when all the components in a system that require house current are plugged into a single extension cord or outlet strip that is fed from a single wall outlet. The current requirements of a system using solid-state components are seldom great enough to make this impractical or dangerous.

There are extreme situations in which it may be necessary to make an actual external ground connection in order to reduce hum. Running a length of heavy wire (as short as possible) from the amplifier chassis to the nearest cold-water pipe is a good method, especially if the pipe is copper tubing with soldered joints. (Steel pipe often has nonconductive “pipe-joint compound” on its threaded connections, which may interfere with electrical conductivity). The screw fastening the cover plate
to a wall outlet can be an excellent grounding point in some—but not all—house-wiring systems. Otherwise, a short, heavy wire running to a metal stake or pipe driven into damp ground will work. All connections should be soldered or clamped firmly under screw heads. A connection to a pipe or stake should be made with a grounding clamp, available in hardware or electrical supply stores. (Measures like this are not normally necessary, and should be tried only as a last resort.) If you live in an old house with BX armored electrical cable, tighten all clamps at the point where the BX enters metal fuse boxes, junction boxes, or wall-outlet boxes.

BUZZ

A first cousin of hum is buzz. It is usually related to the pickup of 60-Hz a.c. line noise, but its buzzy quality suggests that it is entering your system in a slightly different way. The tone quality is due to the predominance of upper harmonics of the 60-Hz current, and it may be accompanied by random ticks and other similar noises. A buzz can be caused by a ground loop, which should be hunted down and eliminated just like any other ground loop, but it can also enter through unshielded audio leads, such as those in your tone arm, or between the turntable and amplifier. Sometimes the shield of an audio cable, which is normally connected to the shell of the phono plug, becomes disconnected. Resoldering the shield, or replacing the whole cable, should eliminate that. If the hum or buzz disappears when you move, twist, or knead a cable in your hands, the cable is suspect and should be exchanged with one presumed to be good.

A wholly different kind of buzz, which sounds like a buzzy hum (or a hummy buzz), often crops up in audio systems located within a mile or so of powerful TV transmitters. It is caused by pickup of the 60-Hz vertical-scan (“sync”) pulses transmitted along with the TV picture. For reasons too complicated to go into here, these signals can be intercepted by the shielded cables interconnecting your components or even by the wires running between your amplifier and speakers. If you find that you are troubled by a type of buzzing hum in one or both channels, and the buzz seems to change slightly in character when you move or hold your shielded cables or speaker leads, the odds are you do have a sync-buzz problem. Unfortunately, a 100 per cent cure can frequently be realized only by circuit modifications in your amplifier or receiver. (The manufacturer did not make the modification in the first place simply because he could not anticipate the problem, which occurs only in a few unlucky areas in the country. For example, amplifiers installed in apartments on Manhattan's West Side in New York City are particularly prone to such difficulty because of the presence of the Empire State building and its massed TV broadcast antennas.)

However, there are some few measures you can take that may be of help. Make sure that all shielded leads are no longer than necessary. Or, conversely, try using longer than necessary leads for the offending stereo channel(s). Try rerouting your speaker leads to the other side of the room. If possible, you might try moving your entire system to a different room. In addition, all the previously recommended techniques for eliminating “normal” hum and buzz problems should be tried. Various improbable grounding connections from chassis to chassis and to external grounds may be of help, but unfortunately may simultaneously introduce ground-loop hum. Some readers have reported successful elimination of sync buzz by using shielded 300-ohm TV antenna lead to connect their speakers to the amplifier. The shielding of the leads should be connected either to the amplifier chassis or to an external ground at either the speaker or amplifier end—or possibly both.

If by now you are getting the impression that sync-buzz elimination is a hit-or-miss, catch-ascatch-can process, you are perfectly correct. The manufacturer of your amplifier or receiver may be able to recommend a specific “fix” for each particular model—one which you can perform yourself, or which may require that the unit be sent to the factory. My experience is that there is no infallible technique for sync-buzz elimination, and that frequently the manufacturer of your component will not be of much help—not because he won’t do his best, but simply because he will be unable to duplicate your particular problem in his test lab and will therefore be handicapped in working out a cure for it.

RUMBLE

Rumble has a very specific cause: it comes from mechanical defects in your turntable. Some turntables are born and die with it. In others, rumble increases with age. The hardening of vibration-isolating rubber grommets or rubber-tired idlers, or wear, or lack of lubrication on turntable-platter bearings and shafts may contribute. Rumble is what you have if you hear a low-pitched, often throbbing or cyclical noise as soon as you set the stylus down into a quiet groove on a rotating record—and what you no longer hear when you lift the tone arm. If a professional maintenance and overhaul doesn’t help, you need a better turntable. (Be aware, though, that some records have a surprising amount of low-frequency disturbance re-
ACOUSTIC FEEDBACK

If your music is muddied or drowned out by a rising howl, groan, or roar when you turn your system's volume or bass control beyond a certain point, your system has acoustic feedback. This usually occurs only when you play records. What happens is that the vibration of the speaker is picked up by the phono cartridge, amplified, and sent to the speaker. This produces more vibration, which is further picked up by the cartridge, and so on, usually culminating very quickly in a roaring or droning noise. If the feedback is below a certain value, the noise may not be continuous, but may cause recorded sounds—particularly bass notes—to “hang over” with a “bongg” quality, just as they might do in a resonant cavern.

A simple test for acoustic feedback requires only that you set up your system as if to play a record, but with the turntable switched off (not turning). Set the tone arm down on the record at random, then turn the volume control up to where it is normally set. You may hear nothing unusual at this point. Now tap the record center with a fingertip—gently, so as not to bounce the tone arm. A “thump” in the speakers is okay; a “bongg” is not. Turn the volume up even more and try it again if you aren’t sure. At some point the process may take off by itself, producing a remarkable noise in the speakers. Normally your tapping should not produce anything other than a brief, well-defined thump at any volume-control setting within the range you usually use for playing records.

Since the feedback is usually caused by direct mechanical transmission of vibrations through solid objects (shelves, floor, cabinets), the cure can be fairly simple: the turntable, or the speakers, or both, must be better isolated from each other with something resilient. Setting speakers on foam or felt cushions, or several layers of thick-pile carpet, is often enough (make sure that the speakers are not touching anything else but the padding). Sometimes one or both of the speakers will have to be moved. Furniture-type installations in which the speakers are built in with everything else are especially prone to acoustic feedback. If the speakers cannot be mounted on pads, it may be possible to set the turntable on foam, or perhaps a different kind of installation will have to be used, with the speakers and the turntable not in the same piece of furniture. Most manufactured turntable-arm combinations, and especially the automatics, are spring-mounted, but that is sometimes not enough to eliminate feedback. If you use a pad, be sure that the weight of the speaker or turntable base that sits on it is not enough to compress it completely. Otherwise the pad will do little good.

Acoustic feedback can also occur where there is no direct mechanical transmission of vibration. For example, a record-player base and dust cover assembly can pick up the airborne vibrations of heavy bass passages and pass them on to the phono cartridge, with unhappy results. Relocation of the record player (or its installation in or on a heavier piece of furniture) can help.

CLICKS, TICKS, AND POPS

Clicks, ticks, and pops are caused by momentary electrical disturbances, and can enter your system either by radiation (like radio signals) or through the a.c. power line. Occasionally they are the result of defects within your system. One of the most frequent complaints is a “pop” heard when electrical appliances or switches are switched on or off. It makes no difference whether the switches are manually operated toggle types, like wall switches for household lights, or things like thermostats and time switches on refrigerators or oil burners. What happens is the same in each case: the making or breaking of a current-carrying circuit creates a spark which “broadcasts” a little splash of interference. It is difficult to make your music system completely insensitive to these signals; the best approach is usually to eliminate the problem at the source. A capacitor with a value of 0.05 or 0.1 microfarad, rated at 600 volts d.c., can be connected directly across the contacts of any offending switch or thermostat. Try to get an experienced person to do this; ordinary house current can be deadly. Naturally, you should be certain that there is no power reaching the switch in question before you or anyone else works on it.

Sometimes the source of electrical interference is outside your house and not under your control. Try to locate the source and have it treated as above. If that’s impossible, a radio-frequency interference filter may help. There are kinds that can simply be plugged into a wall outlet; your system is then plugged into the receptacle on the filter. The simplest and cheapest kind may not be very effective, but try it and see. Prices range from under $2 to about $10. Manufacturers are Aerovox and Cornell-Dubilier, and the units are usually available from electronic parts distributors.

An often overlooked cause of ticks and pops during record playing is static electricity. If the static
voltage (electrical pressure) builds to a sufficient level, the air or other normally insulating material around the highly charged areas breaks down or conducts suddenly. (When this happens in air, a spark is often visible.) As a result of the discharge, an electromagnetic disturbance is created—exactly like a miniature bolt of lightning or the spark when an electric switch is turned off—and the effect is the same: a tick or pop or click in a sound system. The cure is to increase the room’s humidity or to use a conductive turntable mat.

“FRYING” NOISES

Crackling, sputtering, or frying noises are most often the fault of random interruptions in electrical currents. Bad contacts are a typical cause. The build-up of dirt or of nonconducting tarnish on metal contact surfaces eventually makes electrical continuity a chancy thing, subject to mechanical stresses and changes in temperature or humidity. Often, by systematic elimination, you can narrow the trouble down to a particular portion of your system. If, for example, the noises appear only in the left channel and only when you play records, the trouble is clearly somewhere between the left-channel terminals on the cartridge and the output of the left channel preamp in your receiver or amplifier. Any sliding- or pressure-type contacts are suspect: the clips that attach to the pins on the cartridge or mount the cartridge shell into the tone arm, the phono plugs and jacks that make the connections between components in a system, and rotary- or slide-switch contacts. If you suspect a cable with phono-plug terminations, insert and remove the plug firmly several times, twisting it as you do so. Tube pins can be cleaned by removing and inserting a tube several times—be careful not to bend the pins. Scratching noises that occur only when you rotate a tone or volume control can often be cured by spraying the internals of the offending control with a TV-tuner or volume-control spray cleaner made for the purpose. Check your local electronic parts supplier. While you’re spraying, do the other switches and controls at the same time.

If the noises don’t give in to these treatments, they’re a job for a service technician. Tubes, transistors, and resistors can become noisy and may need to be replaced. Solder connections on circuit boards may become intermittent and need to be resoldered.

BURBLING AND WHISTLING

Rushing or burbling sounds, especially when they are rhythmic, sometimes occur when your tuner picks up the FM-station subcarrier used to transmit background music. Find out from the station whether the frequency of the subcarrier is 67 kHz (kilohertz, or kilocycles per second). If it is, and the station broadcasts in stereo, your tuner should reject the subcarrier. If you hear the noise when you switch to the stereo mode, there is either something wrong with your tuner or something wrong with the station. Check with friends who have stereo tuners to see if they have the same trouble. If so, the station is at fault: if not, your tuner is either inadequately engineered or requires servicing. Until the trouble, wherever it is, is fixed, you can usually eliminate the noise by switching your tuner to the mono mode.

A related problem, which may come up when you record stereo-FM broadcasts on tape, is whistling or squealing, usually audible only on the recorded tape. These occur as a result of beats, or heterodynes, between the bias-current frequency of your tape recorder and one or more components of the stereo-FM signal. Well-designed tuners and receivers have filters to prevent enough of the multiplexing “waste products” from appearing at the tuner’s outputs to cause this kind of difficulty, but misalignment or misadjustment of the stereo decoding circuitry sometimes permits such signals to appear. The problem may crop up with some tape recorders and not with others, even when the same tuner is used. The trend toward higher bias frequencies in recorders has reduced the problem considerably. But if you run into this sort of trouble, check with the manufacturers of your tuner/receiver and recorder. They may be able to suggest an easy fix.

One area of interference in home music systems still remains to be covered: disruption by broadcasts from radio transmitters, legal or illegal, licensed or unlicensed. The technical aspects of this problem are so intricately bound up with legal and human-relations considerations that the subject deserves a separate article. We are working on it.
WHAT IS (WAS) ROCK?

By Joel Vance

To the Editor:

Will you, or one of the staff of STEREO REVIEW, explain, define, or otherwise describe “rock” for me? Please use simple terms and short sentences so that a seventy-two-year-old guy—one who doesn’t know how to tell a do-re-mi from a fa-sol-la—can assimilate it in small doses.

The first rock I heard was referred to as “rock ‘n’ roll” (some years back), and since that time, whenever I’ve tried to listen to a modern band, I’ve been bombed right out of my skull and totally deaf for a week afterward. Also, in listening to this modern music via radio, I can’t seem to understand what is being attempted by the singer—it sounds like only an endless repetition of “babee-babbe-babbe.” When I ask the kids to explain rock, they respond with a string of Swahili, interspersed with “like,” “you know,” “I mean,” “groovy,” and “yeh-yeh.” To which I can only reply, “Twenty-three skidoo!”

Now, Louis Armstrong I can understand. No, No, Nanette came across pretty well in the Twenties; and I like Lawrence Welk. But still, I would like to understand rock.

Please untangle me before I come unglued and do something to permanently widen that overcliched generation gap.

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CRITIC and rock-specialist Joel Vance replies: “Rock is a kind of folk music that started out being very simple and got more complicated as it went along. The basic instruments used in it are drums, bass, guitar, and some kind of keyboard instrument, usually piano. In its early days, the people who played and sang it didn’t usually have any formal training, and didn’t necessarily play music for a living; they were “amateurs.” So the most outstanding thing about it technically was the beat. Everything else—rhythm, melody, and execution (whether you miss a note or not)—took second place. People could stomp their feet to the beat, clap hands to it, and dance to it.

Vocally, rock is like a barbershop quartet. One voice sings lead, and one sings bass, and there are two inner voices to fill out the harmony. Gradually the bass vocal was replaced by the electric bass. The beat and the bass set things up for the lead vocal.

In rock, as in any folk music, the vocal doesn’t have to be “pure”: the singer doesn’t have to have a good voice or a lot of technique. The two questions to ask about rock vocals are: (1) Is the singer sincere? and (2) Does the singer know what he (or she) is singing about when he sings? Some rock singers are excellent actors, so they can fool you, and sometimes the acting is so good it turns into its own kind of sincerity.

Another thing about rock vocals is that they are often—in the early days, almost always—sung in Southern accents, because most of the first rock singers were black and white Southerners, even if they lived in the North.

Rock has had three names, and each name indicates what the music was for the time the name was valid. The first name was “rhythm-&-blues,” then “rock-&-roll,” and finally “rock.” The first was black music, the second was a white imitation of it (sometimes very close, sometimes quite far away) that developed into its own style, and the third is the result of the first two getting together.
Rhythm-&-blues started after the Second World War, during which a lot of black people had come North to work in defense plants. They didn't want to go back after 1945, so they stayed in New York, Detroit, Chicago, and Los Angeles. But they were still country people facing a city life that was sometimes good and sometimes very bad. They'd been singing blues and country tunes for years, but in this new "city music" they sang about pawnshops, cars, cold weather, taxes, war, whiskey—and men and women.

Rhythm-&-blues soon split into two camps. One was more country, even though the instruments (guitar and harmonica) were electrically amplified; the other was more polished and sophisticated and was usually done by vocal groups (lead, harmony, bass) with small bands, called "combos," behind them. Combos included bass, piano, drums, and guitar, but these were all played as rhythm instruments, with tenor saxophones doing the solos.

Both kinds of these rhythm-&-blues groups made records, which were sold mostly to the black populations of the big cities, and also sold down South. White amateur musicians, North and South, heard them and liked them and tried to play in one or the other of the two styles, and thus began "rock-&-roll."

Now, remember that we're still talking about folk music, which is open to anybody. That means you get some very talented people playing and singing, and you also get a lot of clucks. But it's the same everywhere—politics, finance, storekeeping, or tap-dancing. There are only a certain number of people who can do it really well, but a lot of the bad stuff sort of looks the same as the good, or it sounds the same, or it says it's the same.

Now, it's also true that if you have enough talent and you know how to organize your ideas, the more you do the thing you do, the better you get at it. There are some very fine folk songs, some beautiful folk melodies, and some great folk performers. "Combos" happened to rhythm-&-blues and rock-&-roll.

By this time (we're into the mid-Fifties now), black and white records of this music were being played on white radio stations. A Cleveland disc jockey named Allen Freed coined the term "rock-&-roll." Why? I don't know—go ask the man who first said "Okay." At any rate, rock-&-roll records were selling in the millions because young people didn't have any other music they considered their own. Sinatra was too old for them, jazz no longer had appeal, and the big bands were what you waltzed to at graduation proms. Besides, the beat was very exciting and sexy and a little frightening. And there was a Southern boy from Tupelo, Mississippi, named Elvis Presley, who had listened to a lot of black records and sang like them and was big and broad-shouldered and good-looking and manly, so it all added up.

R-&-R was kind of (excuse the expression) communistic, because the performers came out of the audience (they were the same generation) and they sang about things that their audience felt strongly about, even if it was as dippy as "Gee, I wanna take you to the Saturday dance," "Why did you give back your going-steady ring?" or "My car is faster than yours"—things that are important to people at that time of their lives. Tin Pan Alley tried to write songs to fit that audience, but the people caught onto the fakes after a while. Besides, a new kind of Tin Pan Alley was developing: songwriters of the same age as their audience, who felt the same way the audience did.

Okay. Now we're at the end of the Fifties. The payola scandals scared everybody in the music industry, the audience was growing older. Elvis went into the Army, and some of the other big artists either died young or retired, so rock-&-roll took a nosedive. Some people said it was dead. It wasn't; it just needed a rest and a blood transfusion. In the meantime, young Americans turned to "pure" folk music, all the way from Smoky Mountain ballads to that "she-lay-long-a-mouldering-derry-derry-down" stuff. This ran from the late Fifties into the early Sixties.

Then the Beatles arrived. American rock-&-roll records had made a tremendous impression in England, and the British developed "beat groups" soon after they got tired of their own folk boom, which was called "skiffle." The Beatles and the other British groups came over: they were "rock-&-roll," but they were different because they were foreign even though they spoke English, so everybody went bananas. The Americans had just gotten over their "pure-folk" thing, so after they tried imitating the British (which didn't work), they combined parts of folk with parts of rock-&-roll. The folk boom had brought out a lot of old songs, and real folkies taught themselves that the further back you go, and the more you know about where music was at a given time, the more likely you are to find good songs and good styles and good ideas. The folk-rockers started doing just that, which led them, strangely enough, to discover some jazz ideas and jazz sounds.

Meanwhile, the Beatles kept writing better and better songs. The man who helped them make their records, George Martin, had a classical background and had also produced a lot of comedy records. The Beatles had a sharp sense of humor; they were also tired of playing twang-twang stuff, so they started using bits of jazz and classical music and folk and anything else that worked, so rock (by this time it was "rock") got bigger because it absorbed more styles.

But the more rock absorbed other styles, the less there was left of the original one. That's why everything went BOOM around 1970. Like the song in Oklahoma, rock had "gone about as far as it could go." So what you hear nowadays on the radio are pieces of the house still falling in after the boom. The house can't be repaired and it can't be rebuilt from the ground up again. People who loved rock when the house was the finest in the neighborhood remember it that way, but they are going to move to another house. Nobody knows where it is yet, but we all take Sunday drives to look over the musical real estate.

I hope this gives you an idea of what rock is. But I'm afraid, if you never lived in that house, you won't fully understand it or appreciate it. You can get a glimmer from records, but it's a little like looking at a house from the outside. And don't let anybody kid you: when times were good, the property values in the neighborhood were very high."
QUO VADIS, LEONARD BERNSTEIN?

By Eric Salzman

Bernstein coughs by the camera in a supercharged moment as he led the New York Philharmonic in the inaugural concert at Philharmonic Hall, Lincoln Center, on September 23, 1962.
A while back I had a heated argument with a gifted young musician of my acquaintance. We had both been present at a highly praised performance of one of the great nineteenth-century musical paddlewheelers directed by an up-and-coming Young Turk, and we were disagreeing about the interpretation. "The trouble is," said my friend, "not without a tinge of jealousy, "he doesn't know the Romantic tradition." "Tradition?" I exploded. "What tradition? Tradition is dead! There's no such thing as tradition."

"Go on," I said, "name one living conductor who really represents the Romantic tradition. Just one."

And my friend was silent.

A few days later I suddenly realized that my friend had missed the one devastating comeback. There is indeed one representative of the old Romantic individualism still on the podium, and his name is Leonard Bernstein. Leonard Bernstein? The tireless, energetic classical superstar? Composer of hit shows, popularizer of the classics, conductor of Ives and modern Americana, athlete of the podium, godfather of "radical chic," contributor to social causes, television personality, educator of the millions, and new-style maestro—that Leonard Bernstein, a representative of tradition?

My friend—and, I am ashamed to admit, I myself as well—did not think of Bernstein because we did not take him "seriously" as a great conductor of Central-European classics. Perhaps this is because Lennie's "tradition" is Franco-Russian rather than Central-European. It is East-European schmaltz inherited from his teacher Serge Koussevitzky and tempered by Thirties-style Americana and a lot of outgoing ego. It is a vital approach, honestly come by, and adapted to the needs of our day, reconciling the past and the present with a good deal of style, energy, and idealism.

Beginning in the late Thirties and early Forties, largely under the influence of Toscanini, the old personal, Romantic approach to conducting (which goes back to Wagner) was all but totally superseded by a neo-Classicism that stressed brilliance, ensemble, forward motion, and detail. The conflict can perhaps be symbolized by the famous rivalry between Furtwängler and Karajan, and, with Furtwängler's death in 1954, the tide can be said to have turned: as the giants of the old school died out, Toscaninism and Karajanism have totally dominated the younger generation.

Leonard Bernstein's position, even as director of the New York Philharmonic, was a strange one. Physically and spiritually on the periphery of Central Europe, he persevered in a highly personal approach at a time when personal approaches were out of fashion—with the art world, not the public—and has finally emerged as the exponent of an artistic style that now shows all the signs of a revival.

It must seem strange to be music director of a great and famous orchestra and yet be isolated and something of an outcast. Yet this is, in effect, what Lennie's position has been over the years. It almost seems as if no one noticed or appreciated Bernstein—except a few thousand Philharmonic subscribers, a few tens of thousands of record buyers, and a few million television viewers. Even Leonard Bernstein, the most successful American classical musician ever, had to go to Vienna to be truly appreciated. The Viennese loved him, of course. They haven't had a good representative of Romanticism since Hitler chased Bruno Walter out.

Bernstein was certainly influenced by Koussevitzky and Walter, but there is an even more striking affinity with another famed Viennese, a predecessor at the Philharmonic, and one of his favorite composers: Gustav Mahler. Like Mahler he is a musician of great natural gifts, an embracing, eclectic personality who alternates moods of introversion and extroversion. Like Mahler, he is an active creator who composes in bursts of energy when he can find time off from other activities. But there the similarities end. For Mahler was a precisionist of intentionally limited repertoire, while Bernstein is an enthusiast with interests running in many directions. But it is no accident that Bernstein's affinity for Mahler has helped establish that composer as one of the giants of the recent past.

Bernstein's home town is Boston, long the center of Franco-Russian influence on American music. His training shows the influence of neo-Classicism, of both the Stravinsky and the Boulanger-school variety, but it never went very deep. Walter Piston, his teacher at Harvard, is a solid French-trained academic in the nineteenth-century tradition. The Boston Symphony, Tanglewood, and Serge Koussevitzky, although responsive to developments in new music—Franco-American neo-Classicism in particular—also represented quite tangible links to the musical traditions of old France and old Russia. Indeed, it was probably Boston's conservatism and European orientation that permitted their most gifted native son to slip away.

All of Lennie's big breaks were in New York: as the composer of ultra-New York hit musicals (On the Town and West Side Story, for instance), as the conductor of a specially created "popular" orchestra at City Center, and as Assistant Conductor of the New York Philharmonic, where he filled in, one famous day, for an ailing Bruno Walter. When the
Philharmonic appointed Bernstein as Music Director; he was neither inexperienced nor obscure. But American orchestras had always been directed by Europeans of great age and reputation, and the accession to podium power of a relatively young American was considered sensational. Indeed, there has hardly been a comparable appointment since—our major orchestras are still beating the bushes for glamorous European (or Asiatic?) names.

There can be no quibbling about what Leonard Bernstein did for the Philharmonic. Memories are short, and it is easy to forget that the orchestra was in a great deal of trouble when Lennie took charge. The public was apathetic, and orchestra morale was very low. The situation was so bad that the New York Times devoted a full page of its Sunday edition to the crisis. Lennie rode into the fray on a white charger. He rejuvenated an ailing orchestra and reawakened its public. He freshened the repertoire, added American music to the diet, and harangued and cajoled the public into accepting it. He maintained (and enlarged) the position of the Philharmonic as one of the world’s top recording orchestras and brought the Philharmonic into millions of living rooms through his extraordinary success as a television educator and personality. Lennie, at his height, could run off a broadcast, a children’s concert, a couple of recording sessions, four or five rehearsals, and four subscription concerts a week, all at a fever pitch, if not actually in a state of ecstasy. Somehow, he nearly always managed to convey a sense of involvement, of excitement, of significance—qualities all too often missing from the routine of classical music-making these days.

Make no mistake, the vivacity and sense of communication at these events was real. And some of the carping and criticism that mounted up over the years can and should be ignored. He loved to talk to the audience, and a lot of people thought that was not in good taste; but Pierre Boulez is doing the same thing at his Philharmonic modern-music concerts, and everybody now seems to think it is a fine idea. Lennie jumped up and down a lot, and some people claimed to be distracted. But perhaps “live” performance needs a little theater—and, in any case, it is the aural, and not the visual, result that really matters.

No doubt Lennie did sometimes treat music on such a personal—and occasionally show-biz—level that the results were distorted; we would call them ego trips now. Actually, in spite of all the excitement, Lennie was and is too much of a musician to let carried away very often. It is true, however, that, after a while, the discipline of the orchestra began to run down. Bernstein, never a taskmaster, was always “Lennie” to the men, and he always called them by their first names. He treated them as colleagues, and, rather than exercise his authority, he liked (or hoped) to sweep them up in his own excitement. In this respect, Lennie actually is better suited to be a guest conductor than a “music director.” He has a remarkable ability to communicate quickly with musicians, to inspire confidence and enthusiasm. But, in the long run, to succeed with an orchestra like the New York Philharmonic, one must either be a severe taskmaster or confine one’s work to ensemble, leaving the expressive details to the men.

In my opinion, Lennie’s biggest error as Music Director of the New York Philharmonic was to permit the transfer of the orchestra’s fortunes from Carnegie Hall, where they were surrounded by fine acoustics and mementos of the past, to the unfriendly and acoustically unhappy territory of Lincoln Center. If the directors of the orchestra had understood what Lennie himself has often pointed out—that the orchestra is, in part at least, a kind of museum of the culture of the past—they might have realized the importance of the congenial and appropriate surroundings of venerable old Carnegie Hall. Lennie himself, the last of the Romantics, had great difficulty in re-establishing that level of personal communication—which is, after all, his particular genius—in the cold reaches of Philharmonic Hall.

But where to now? Surely no other living musician could wear the embarrassing title of “conductor laureate”—for so he is billed at the New York Philharmonic these days—and get away with it. Laureates are supposed to be crowned with wreaths of laurel, and to be given an ample additional supply to rest on. The famous Bernstein profile will one day, no doubt, make a fine marble bust. But it would hardly appear that Lennie intended his “retirement” as an excuse for decreasing his activities—rather the contrary. His successes in Vienna in 1968 finally opened up Europe to his talents, and his new-found freedom will permit him to exercise his undoubted abilities as a guest conductor. And, of course, he will finally have the time he needs for the full expression of his creative talents.

We have not yet touched on Lennie the composer, the creator of On the Town and West Side Story, the Jeremiah, Age of Anxiety, and Kaddish Symphonies. Trouble in Tahiti, Candide, and the new music-theater Mass. There are many parallels in Lennie’s composing and conducting careers—the same elements of virtuoso skill, eclecticism, enthusiasm, expressivity, and critical failure vis-à-vis popular success run through both. His vision has
Touring Eastern Europe and Russia in 1959, Bernstein stopped to try out Chopin’s own piano at the Chopin Institute in Warsaw.

almost always been large; indeed, his big “serious” pieces suffer from the very largeness of his embrace. He is almost too skillful at absorbing everything, at being a kind of musical sponge, soaking up whatever is in the air. The ear is too good, the musical mentality too retentive. His big pieces are compendiums of everything he has ever heard. Now he has even tackled multi-layer music theater in his Kennedy Center Mass, a piece which is in itself a musical autobiography.

The Mass, as treated by Bernstein, is a kind of theater piece, and no one would argue, I think, about his talent as a theater composer. Nearly all of his theater music has incontestable quality. Many argue that his one real theater “failure,” Candide, is the best of all. Candide should certainly have been picked up long ago by one of our opera companies. And this suggests one of the great mysteries of Lennie’s career: his relative absence from the opera house both as a conductor and a composer. The theater is pretty obviously his natural medium, and the Romantic, expressive traditions of which he is so effective a latter-day exponent find a natural outlet there. It is a fact that nearly all of the great creators of the American musical theater had their roots or training in European tradition: the distance from Broadway to the opera house is not as great as many people think. Bernstein’s relatively late appearance in the opera house as a conductor (Falstaff, Cavalleria Rusticana, Der Rosenkavalier) was enormously successful, and, since the commercial musical is less and less a viable medium these days, the opera house—so desperate for repertoire and rejuvenation—would appear to be a logical home for his creative talents.

There’s a lot about Lennie that has been left unsaid. Although he rarely practices, he is a first-class pianist of remarkable skill. But his much-publicized playing-and-conducting feats might not suggest his exceptional sensitivity as a lieder accompanist. He accompanied Christa Ludwig in a fine all-Brahms program in Carnegie Hall not too long ago, playing a Bechstein grand, and was described by one critic (with modified rapture) as “an accompanist of the old school.” Then there is Lennie’s skill as a recording artist: indeed, he could be described as the first electronic-media artist among classical musicians, and his successes in this area have been so great that it is somewhat surprising that he has not yet realized the creative potential of the record and television media.

Behind Bernstein’s well-known work as an educator and tireless proselytizer lies the close connection between his political and social views and his artistic outlook. Bernstein came to maturity in the politically conscious Thirties, and the tradition of the committed arts has had an important influence on his artistic personality. His work in the theater is in the direct line of Kurt Weill and Marc Blitzstein, and stylistically all of his music grows out of the popularizing and populist trends of the Thirties, with which he remains a living link. The commitment to music as a social art and, not purely abstract, art informs all of his musical activity. The superficial criticism of Lennie as a pure show-biz figure can be quickly dismissed by the uncynical, and the charge of “radical chic” does his earnestness and commitment a serious injustice. Certainly his commitment, his proselytizing, and his outgoing Romanticism can be seen in one way as a huge ego trip, the extension of his limitless embrace and his apparently fathomless desire to be admired and loved. But Lennie is, above all, an artist and a musician of real gifts and real dedication. One who lives his life in and as art, one who has kept alive in music such ideas as expressivity, personality, and vitality in a day (fortunately now passing, I think) when these qualities have been downgraded and considered unfashionable.

At a time when we are beginning to reassess the human and social values of musical expression, we can recognize the deeper worth of Bernstein’s contribution. At a time when classical music seems more and more to have been turned over to pastry cooks, museum curators, and megalomaniacs, he has affirmed its life values and contemporary meanings—not just for the literati and the cognoscenti, but for a larger public which he himself has helped to create. Music and its audience, let us hope, will never again be quite the same.
Two young non-competing competitors continue the great tradition of violin playing

A duolog engineered and transcribed by Stephen E. Rubin

Ask any fiddle fanatic who the two hottest young shots of the violin are at present, and you are likely to get the reply: Pinchas Perlman and Itzhak Zukerman. No one in the know would argue with that—except for the matter of a little name scrambling: it’s really Itzhak Perlman and Pinchas Zukerman. But the confusion is not surprising, considering that both are from Israel and have typical Israeli names, both are in their mid-twenties, both won the competition violinists strive hardest to win (the Leventritt), both record and concertize internationally, both have the same manager, both live in the same New York City apartment house, and both are married to American girls. To tangle matters further, instead of being deadly rivals they are close friends.

The two violinists have sometimes for one another in person, an error less understandable than the confusion about names, because (thankfully) there is absolutely no physical resemblance between the two. Perlman is short, wears glasses, has a sort of Jewish-Afro haircut, and walks with the aid of crutches, remnants of a childhood bout with polio. Zukerman is six feet tall and plump, has long hair but of a straighter variety, usually smokes a cigar, and radiates an air of youthful deviltry. All this notwithstanding, Perlman reports that he was once approached by a very proper Englishman who asked for his autograph, “Mr. Zukerman,” and was also recently photographed by a New York Times cameraman who had been sent to get a picture of—Itzhak Zukerman.

In their fiddling there is a contrast as great as their physical disparity, even though both studied (here we go again) with Ivan Galamian at Juilliard. The differences begin to emerge as each describes the other’s art. Says Perlman of Zukerman: “First of all, Pinky’s playing is individual. When you listen to him play, you know it’s him. There is character. I hate it when I listen to a recording and think, ‘My goodness, who could it be? Maybe it’s this fellow? No, it’s someone else.’ But when you listen to somebody and you know that’s so-and-so, that’s a terrific sign. Musically speaking, when Pinky has an idea, he can execute it and can make it completely convincing. His playing is very alive and young. It’s terrific. What can I say? I’ll vote for him.”

Zukerman returns the compliment. “If Itzy keeps playing the way he does, it’ll be very good for the music business and very good for all the fiddlers around. Because it will continue the great tradition of violin playing. He is someone who can carry it out. He plays the fiddle tremendously, with no difficulties whatever. When I listen to him, it’s a joy because it’s an effortless thing when someone gets on the stage and commands the instrument the way he does, and speaks on the instrument the way he does. I may not agree with what he conveys all the time—that’s a personal thing—but to go and listen to him play is a real enjoyment. a nachas.”

Talking with this odd couple is often an exercise in keeping up with trilingual buffoonery. Zukerman plays Laurel to Perlman’s Hardy, and wisecracks fly in a mixture of English, Hebrew, and Yiddish—bravado covering a hint of embarrassment on the part of both. The two are genuinely fond of one another and respect each other tremendously as musicians, but they don’t seem to want to talk about it. Perlman, particularly, checks his wristwatch with dismaying regularity. Zukerman, host at the interview, is perhaps more relaxed. At one point, he opens the morning’s mail.

In telling me what they admire most about the other’s playing, neither offers a description of the musical differences between them, an explanation of why they are not carbon copies of one another. A good chance to scrutinize their dissimilarities will be available when their recently taped performance of the Bach D Minor Concerto for Two Violins— their first recording together—is released on the Angel label later in the year. But I do get Zukerman to attempt to explain where they go their separate ways, with Perlman adding a helpful, if somewhat distracting, running commentary.

Zukerman: I don’t think there’s a difference in the playing so much as a difference in approach. . .

Perlman: Listen to the Bach, it’s sometimes frightening.
It’s a thought process more than the actual technical approach. Technically, I think our playing is very similar. I mean, he can play cleaner than I, I know that for sure. And he’s less scratchy.

Perlman: No, I’m not. C’mon. I scratch plenty.

Zukerman: I’m talking about performances, not records. In performances, I go overboard emotionally—I’m detached from the audience, from all surroundings. This is the thought process I mean. I don’t think he goes overboard the way I do.

Perlman: I have to think about it to do it. To him, the abandon comes naturally.

Zukerman: It’s very similar, actually, to Stern and Perlman, for example. Mind you, I’m not comparing. Maybe Oistrakh is better. . .

Does Zukerman mean that he is more like Stern and Perlman is more like Oistrakh?

Zukerman: I think so. Wouldn’t you say so, Itzy? In thought process only, not in actual playing.

Perlman: I don’t know. I think Schwartz and Miller is much better. Schwartz always does what I do. Miller—forget it.

Perlman, the wise guy, was born in Tel Aviv in 1945. Three years later, in a small town not far from Perlman’s home, Zukerman came into the world. They were not to meet until 1957. Both studied the fiddle as youngsters, Perlman from the age of three and one half, Zukerman from the age of seven. Little Itzhak desperately wanted to play; little Pinchas had to be forced to practice. By 1957, both were schooled decently enough to be invited by the Tel Aviv Academy to perform for visiting dignitaries, including Leonard Bernstein. Being soloists on the same program, they met perfunctorily for a moment. “When one is nine and the other is twelve, there is a big difference,” Perlman recalls. “I had been studying the fiddle for only two years. He was already an alter kocker,” Zukerman says.

A year later, in 1958, Perlman came to the United States as part of a program Ed Sullivan had assembled in Israel. He came and he stayed—studying at Juilliard with the assistance of scholarships from the America-Israel Cultural Foundation and the Juilliard School. Zukerman followed a similar course. In 1961, he was “discovered” by Isaac Stern and Pablo Casals when they visited Israel. Through Stern, he received a grant from the America-Israel Foundation to study at Juilliard.

Perlman won the Leventritt in 1964; Zukerman followed suit in 1967, sharing the first prize with the Korean fiddler Kyung Wha Chung. Because of Perlman’s head start, Zukerman has had a little catching up to do. Currently, Perlman’s performance fee is slightly higher than Zukerman’s. Both have played with virtually every major orchestral organization and have recorded widely. Their careers have galloped ahead with dazzling momentum, and they are, in a sense, at the ages of twenty-six and twenty-three, firmly established.

Zukerman, however, appears to be headed in a new direction as he succumbs more and more to the lure of the podium. For now, he claims to have no desire to conduct large-scale symphonic works—“I don’t have enough experience yet”—but feels he can manage chamber pieces in which he can play the fiddle while leading. As his first major conductorial assignment, he will tour with the English Chamber Orchestra this year, performing such works as Mozart’s “Haffner” Serenade. He has also recorded two Bach violin concertos and the third Brandenburg Concerto with the ECO for Columbia, doubling as soloist and conductor.

Perlman has had the baton on his mind, too. “Probably everybody has an inner desire to conduct,” he says, “but at the present time, I’m not doing anything about it. I feel I have so much to do yet on the violin. I did take some conducting classes at Juilliard. They helped me not only in knowing something about it myself, but in understanding when I’m playing with conductors what they’re doing—or trying to do. Believe me, sometimes you have to accompany a whole concert yourself while playing.”

Zukerman had hoped that Perlman could be one of his soloists with the ECO in 1973, but scheduling wouldn’t permit it. The current custom of booking three, four, and five years in advance, and the exclusivity of artists to one or another recording company, has frustrated the fiddlers—but not completely. Along with Zubin Mehta, Daniel Barenboim, and Vladimir Ashkenazy, they form the nucleus of what has been dubbed a musical Mafia, the members of which are slowly but surely insisting upon performing and recording with whomever they wish, contractual agreements be damned.

“More and more now, record companies and managements are beginning to allow this to happen,” Perlman says. “But it’s still difficult,” Zukerman adds. “I want to record with Zubin, but I can’t because he’s with Decca. Of course everything is possible. To get Zubin, CBS, in my case, would have to exchange him for someone. Ashkenazy and Barenboim have wanted to record the Mozart double concerto they played five years ago. They’re finally doing it next year, but it took five years to iron out all the paperwork, the nonsense.”
Being so friendly with other musicians has an odd effect on the two when they hear one of their buddies perform.

Zukerman: When I go to hear Itzy play, I get terribly nervous.

Perlman: If you hear a friend play, you've got to be nervous. You feel that you want it to be good.

Zukerman: You anticipate what will come out, and finally when it does, you're relieved.

Perlman: It's always like that. As a matter of fact, when you're listening to somebody, you're more nervous than if you were playing yourself.

Does this apprehension carry over to the next morning as well, when the other's press notices are published?

Perlman: Reviews make me nervous. . . . I'm only kidding!

Zukerman: I've never seen a bad review of his.

Perlman: Naah, there are plenty.

Zukerman: Not in New York.

Perlman: What do you mean? I recently had a review in the New York Times that was ridiculous. It was for a performance of the Berg Concerto with the New York Philharmonic. Look, the critic is entitled to his opinion, but in this case I did not feel he understood what he was writing. First of all, he contradicted himself. He said that I played the Berg like Bruch and Tchaikovsky—Romantically. In another paragraph, he said the Berg is lyrical and Romantically rooted. Yet, I played it Romantically, which he didn’t like. In any case, what it all amounted to was that he didn't think I could play it because my style and training were not properly Bergian.

Zukerman: What the hell does that mean?

Perlman: Exactly. That review was, for me, so wrong and uninformative that I didn't even get mad.

Have there been occasions when a review did unsettle him?

Perlman: At this point, I really don’t care. The only time I would get mad—and it has happened to me only once—is when I feel I didn't play well and the reviewer said so. Then I would get mad—at myself. I'd say, well, you can't put anything over. That's fine. It's not the reviewer's problem. But it doesn't happen. When I play really badly, I still get very good reviews.

Zukerman: As time goes on and as you play concerts day in and day out, and you play basically the same literature, you're not a very good judge of what goes on at a particular performance. At least I'm not.

Perlman: But that's what you have to try to do. You have to try to be your own tape recorder. It's very important. You have to train yourself after a while to have it in you constantly while you're playing.

Zukerman: But when you listen to yourself, you can't be objective because you just went through the experience.

Perlman: I once had an experience that was really weird. I turned on the radio, and the last movement of the Sibelius Violin Concerto was playing. I liked it, really liked it. I started to get upset, though, because I've done a recording of the Sibelius, and I
began comparing it to mine. Then my wife came in and asked who was playing? ‘I don’t know,’ I told her. ‘but it’s better than my recording.’ I was very upset. You know what? It was me! I only suspected it in the last three measures. I don’t think I’ll ever have this experience again, listening to myself and not knowing it. I’m really thankful that it happened to me once.

Zukerman: It happened to me once, momentarily, too. I turned on the radio in the middle of the Mendelssohn Concerto. I said, you know, it’s not bad. It went on, and I wasn’t sure. Then I heard a thump in the record, and I knew it was me. Lennie had made a noise or something which they left in—which was good—and I recognized it.

Perlman: Daniel Barenboim was once listening to a Beethoven sonata. “You know,” he said, “I know it’s not me because it’s so clean and wonderful, but that guy does exactly what I do.” He was really on edge. He kept on listening. . . and it was him! “My God,” he said, “it’s not bad!” But this only happens to you if you haven’t listened to your recording for quite a while.

Zukerman: That’s why I get nervous when I listen to myself on the radio, because I know it can’t be changed.

Perlman: And there are always hidden things that only you can listen to because you’re trained to listen to them. Like there’s a note that’s not exactly on the button. You know there was a whole discussion about that note—should we take it out or leave it in. It’s left in, and then you think that the whole world is listening to that particular note.

Perlman and Zukerman are sensitive to each other’s feelings as well as each other’s sore spots. Each knows what bugs the other, and neither fears engaging in a little teasing sport. A few bull’s-eyes were hit when the subject of repertoire—or rather what one would like to hear the other play—came up.

Zukerman: He’s played just about everything, the sonofabitch.

Perlman: I’d like to hear him play the Sibelius Concerto.

Zukerman: Ha-ha-ha.

Why is that funny?, I ask.

Zukerman: I’ve never played it because I don’t like the piece. Actually, I’d like to hear Itzy play Mozart some time, more than he does.

Perlman: I’ll play more. It’s Mozart and Mendelssohn that drive me crazy.

Zukerman: For me, it’s the Bach solo partitas. I don’t know why. At this time they’re very difficult and a pain in the toochis.

Perlman: When I play Bach in recitals, I always find myself experimenting and never deciding on a set way of doing it. I find that it’s very good—the more you explore, the more ways you have of doing it.

Zukerman: You see, that’s where we differ. Where he would do that, I wouldn’t. If I experimented on the stage, I’d know exactly why. That’s why, at the moment, I’m just scared of Bach.

Perlman: This is a personal thing. Just like I haven’t played the Mendelssohn Concerto up to now. I felt that I didn’t want to bother with it yet. Everybody has different mishegaas, not feeling comfortable with one piece or another. I’ve only performed the Mendelssohn three times since I’ve been playing. Pinky has played it I don’t know how many times. But now I’m beginning to play it.

These stages the artists go through with repertoire are akin to the stages they went through as beginning fiddlers, when the ghosts of the violin greats were very much on their minds. “As he grows up, every violin student has influences.” Perlman explains. “It’s how you use the influences that is important. Everybody has a Heifetz period. So you go and slide your way through for two years. The tragedy is that some people can’t get themselves out of it. Then, after the Heifetz influence, I had my Oistrakh period, French-sliding and wide-vibrato-ing myself to death. Then I had a Stern influence. Not vibrato-ing at all for three years.

“The thing is, when you have these influences you don’t really do what the violinist does. You just make a caricature of some of the things. My very last one was the Stern influence, which for me was enormously helpful. Just trying to analyze what he does. Whenever I have an opportunity, which unfortunately is not very often, I play for him. Whenever I listen to violinists play, I always try to learn something. I go and I listen to Pinky play, even him. If you don’t like something, you say, ‘That’s what I shouldn’t do.’ If you do like something, you say ‘What is he doing that sounds so good?’ Unfortunately, not many people do this. They have too much self-satisfaction. They’re not listening to anybody but themselves.”

When Perlman and Zukerman listen to each other, is there a sense of competition? Was there ever one?

Zukerman: Never.

Perlman: Always! . . . No, no, there isn’t! I’ve never felt it at any time.

Zukerman: I just knew I was better, that’s all.

Perlman: Ha-ha-ha. Can you imagine the headline on this? “I Just Knew I Was Better!—Pinchas Perlman.”
ANYONE familiar with the work done over the last dozen years by Nikolaus Harnoncourt and the Vienna Concentus Musicus would expect any of their recordings to be more than just a routine performance of early music, and I am happy to say Telefunken’s new release of Monteverdi’s *Il Ritorno d’Ulisse in Patria*, with Harnoncourt conducting the Concentus Musicus, is a splendid achievement. Harnoncourt, of course, has done Monteverdi before, notably *Orfeo* and the 1610 Vespers. From these and his other recordings, listeners know that his usual manner of working involves extraordinary attention to detail—in instrumentation, the use of original scores, as close an approximation of the original performing forces as possible, pronunciation in vocal works, and the consideration of theatrical possibilities. That attention to detail is everywhere in evidence in this current release, which is further distinguished by an exceptionally high standard of singing and by superior sound quality.

*Il Ritorno d’Ulisse in Patria* (*The Homecoming of Odysseus*), first performed in Venice in 1641, was Monteverdi’s next-to-last opera and was written just two years before he died. Based on the last books of Homer’s epic, the work deals with the attempts of Odysseus (Ulisse) to return to his palace and his wife, the efforts of Poseidon (Nettuno) to thwart him, the intervention of Athena (Minerva) in his behalf, and his return home disguised as an old beggar. Penelope, Odysseus’ faithful wife, has in the meantime been plagued by a group of suitors who vie for her affections. Although she thinks Odysseus is dead, she refuses to give herself to any of them. Odysseus finally reveals himself by proving, in a contest with the suitors, that he is the only one able to bend his famous bow, whereupon he kills them all. Husband and wife are happily reunited at the conclusion.

Some of the plot’s elaborations, such as the continual inability of Penelope to believe that her husband is still alive, are apt to exhaust one’s patience, and the long opera, it must be admitted, has a few tedious moments. But it also has some tremendous sections: Penelope’s first-act lament; a group of florid arias by Minerva; the wrestling scene between Odysseus and Irus, a glutton, and the latter’s suicide; and, of course, the scene in which the suitors attempt to bend Odysseus’ bow.

If the opera seems drawn out (the death of the suitors, for instance, occurs at the end of side six, and there are two more sides to go before the end), this performance goes a long way toward minimizing the meanderings of the plot. In fact, I would not hesitate to name this as Harnoncourt’s best Monteverdi production to date. The work has been recorded before, but this new version could not be bettered in performance, edition, or-
chestration (the scoring is largely unspecified), characterization, feeling for the all-important "affect," sound of the original instruments, and quality of voices. Among the vocalists, not one of whom is a weak link, Rotraud Hansmann and Margaret Baker-Genovesi are particular standouts for their ability to handle the florid writing with so much charm. Norma Lerer is a vocally cool yet very expressive Penelope, Sven Olof Eliasson a fine Odysseus, and Kai Hansen impresses one with his vocal freshness as Telemaco. Odysseus' son. Finally, there is that favorite character actor, Murray Dickie, whose stuttering portrayal of the glutton Irus is one of the funniest things I have heard in a long time, even as he commits suicide because he can no longer sponge off the other suitors.

All the stylistic requirements of this music have been met, and that includes really superb pacing of the many recitative-like sections. Let's hope this kind of attention to detail will continue in Harnoncourt's (logically) next Monteverdi recording, L'Incoronazione di Poppea, surely high on Telefunken's list of future productions. A multilingual libretto with extensive annotations is included in the album, and the sonics are spectacularly good.

Igor Kipnis

THE BANGLA DESH

LOVE FEAST

A summing up of the best in rock, and a moving postscript to a musical Golden Age

The mounting of the Madison Square Garden concert for Bangla Desh was one of rock's finest moments, a moral and selfless act, and the three-disc Apple recording of the event shows that the performances were worthy of the intention. George Harrison put the concert together and rounded up the superstars, and he also carried most of the weight of the program with his own songs. Many of them are quite good, and at least one is a stunner—While My Guitar Gently Weeps. Eric Clapton, who played on the original recording of the tune in the Beatles' "white" album, appears again here, and his guitar duet with Harrison is absolutely thrilling.

The long selection by Ravi Shankar and Ali Akbar Khan that opens the concert lets you sweetly drown in meditation, as the music asks the audience to do. Billy Preston, a red-hot organist and singer made famous by the Beatles, joyously sings That's the Way God Planned It, to the delighted (and delightful) accompanying shrieks of a young woman from the backup chorus, who is, I assume, Claudia Linnear. She has the range and cool fire of the late Mahalia Jackson, and her injections of happy zeal make a running commentary on the performances of the others.

Good old Ringo muffs the words when he sings his tune It Don't Come Easy, and his voice is shakier than in the studio recording—but what the hell! Leon Russell roars out Jumpin' Jack Flash and Youngblood in a raucous medley, and joins Harrison on Beware of Darkness, another of George's better songs. George and Leon give vocal and instrumental support (faithful Ringo banging a tambourine) during Bob Dylan's segment, which includes two of his best songs and a "lost" charmer, It Takes a Lot to Laugh. . . . Dylan is his usually laconic self and plays his usual terrible harmonica, but in the love-feast context of the concert he's just fine.

Beyond the nobility of intent of the concert, "Bangla Desh" serves as a summing up of the best in rock, music and attitude, a moving postscript to a musical Golden Age. This is one of those rare albums that deserve the deluxe packaging (unflashy, let it be noted), and its price is modest, especially considering what you get. The continuing brouhaha,
in and out of the public prints, about the proceeds of the album will eventually be resolved, and the loot, like that from the concert itself, will go to Bangla Desh relief. That makes it all even nicer.

Joel Vance


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THE KINKS CONSIDER EVERYMAN

Their "Muswell Hillbillies" is the best evocation of the independent spirit rock has yet produced

"The working class hero," says John Lennon, with intentional irony, "is something to be." Ray Davies and the Kinks have elaborated on that at length in their new album, "Muswell Hillbillies," their first for RCA. They have examined the beleaguered Cockney from all angles and, in the end, leave us all to identify with the plucky little chap. His plight is ours, to some degree. The forces that, consciously or not, are bent on dehumanizing him ("They’re putting us in little boxes/No character just uniformity" . . . "I was born in a welfare state/Ruled by bureaucracy-Controlled by civil servants/And people dressed in grey") are working over us in similar ways. The Kinks’ heroes and heroines can have a cup of tea ("Tea knows no segregation, no class nor pedigree"): but there is no escape, only daydreaming, and they turn to that: "But in her dreams she’s far away/In Oklahoma, U.S.A./With Shirley Jones and Gordon MacRae" . . . "Never seen New Orleans, Oklahoma, Tennessee/Still I dream of the Black Hills that I ain’t never seen."

Davies uses severely plain, blunt language for his lyrics, an aesthetic decision, no doubt, since that is the most appropriate language here. There is no attempted poetry, and no obscure message-within-the-message to be laboriously extracted by showboating rock critics. As a composer and arranger, Davies is completely unfettered. His work shows the influence of numerous sources and styles—influences so completely assimilated that the more you listen to his melodies the less inclined you are to predict what he might invent next. But it will be tuneful—you can count on that. The same open-mindedness characterizes the arranging: in *Acute Schizophrenia Paranoia Blues*, the Kinks achieve a
modified Dixieland sound without woodwinds, just with guitars. In a song about demon alcohol, they fade out of a cabaret-concertina motif into the heavyhanded blurp-blurp of a Salvation-Army band sound. The arrangements on Holloway Jail and 20th Century Man are simply too good to be described in an era when everyone is (often justifiably) down on adjectives.

The album could us a bit more humor. I doubt that real Cockneys are as restrained and funky as the Kinks seem here. Still, the seriousness doesn’t deteriorate into preachiness; in fact, it is anti-evangelical—crusades under various banners are what got us into this state, it seems to be saying. Call it anarchistic if you wish. I call it an evocation of a fiercely independent spirit, and the best such evocation rock music has so far produced. Noel Coppage

THE KINKS: Muswell Hillbillies. The Kinks (vocals and instrumentals). 20th Century Man; Acute Schizophrenia Paranoia Blues; Holiday; Skin and Bone; Alcohol; Complicated Life; Here Come the People in Grey; Have a Cuppa Tea; Holloway Jail; Oklahoma, U.S.A.; Uncle Son; Muswell Hillbilly. RCA LSP 4644 $5.98, © P8S 1878 $6.95, ® PK 1878 $6.95.

LINDA RONSTADT'S BEST YET

Each song gets the perfect setting in her affecting new album on the Capitol label

LINDA RONSTADT has always had a sexy, kittenish quality in both looks and performance, and I've had a little crush on her and her sound since her early days with the Stone Poneys. Well, kitty's all grown up now, and Capitol's new "Linda Ronstadt" is not only the finest thing that she has yet done interpretively, but reveals that she’s developed a rich and warm voice that can soar or whisper without ever losing its consistently appealing loveliness. Not since Joan Baez can I remember a folk-infected female singer who communicates so affecting. And, as much as I admire Miss Baez, there are times when a certain Dresden-china look-but-don’t-touch quality creeps into her work. But Ronstadt always seems touchable, and eminently touching, in all her material.

Superficially this album can be classified as country, in perhaps the same way as those of Kristofferson. But within that chosen style glow Ronstadt’s intelligent sensibility and joyous musicianship. They permeate such things as her own arrangement of the Guthrie-Ledbetter-Lomax Ramblin’ Round; she sings that aching, wistful song in such a rhapsodic and pulsating voice that it transcends categories. And there is Rescue Me, whose gospel style is only a frame for a spectacularly involving performance. I Fall to Pieces was recorded at the Troubadour in Los Angeles, and in many ways it is the best thing in the album, for you hear the mounting excitement of an artist responding to a responsive audience and effortlessly producing a galvanizing performance. Although the tracks were recorded in several locations, the album as a whole is no hodgepodge of varying moods: instead, it has the nitty-gritty feel that comes of the successful search for the perfect setting for each song.

No doubt about it, Linda Ronstadt’s days of being just the prettiest face in the Stone Poneys are firmly behind her. I think that even if she looked like Tiny Tim and sang the way she does on this album, she’d still have gone on to be the kind of real star she was always going to be. Peter Reilly

LINDA RONSTADT: Linda Ronstadt (vocals); various orchestras. Rock Me on the Water; Crazy Arms; I Won’t Be Hangin’ Round; I Still Miss Someone; In My Reply; I Fall to Pieces; Ramblin’ Round; Birds; Faithful; Rescue Me. CAPITOL SMAS 635 $5.98, © 8XT 635 $6.95, ® 4XT 635 $6.95.
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2. M 31206*
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3. M 31205
   "The East Germans invited me to go and record in the great cathedral at Freiberg in Saxony, where Gottfried Silbermann built this marvelous organ in 1727. (Silbermann and Bach were great friends.) The organ has the characteristic 'silvery' Silbermann sound. It's the first time an American has recorded on one of these great Silbermann organs, so it meant a great deal to me. On the record I play the music of Johann Gottfried Walther, a friend of Bach's, famous for arranging for the organ the works of Vivaldi and other great composers. The organ is tuned in unequal temperament, so the sound, like olives, takes some getting used to."

4. M 31193*
   "Among other things on this album is the heroic poem Dupré wrote for the reconstruction of the organ at the cathedral of Verdun. Adding to the organ a double brass choir is rather like adding fire to earthquakes or putting a double bubble in champagne. But it works. It could blow the roof off. And St. George's Church in NYC, where this was recorded, has a marvellously high roof. It's the highest roof in NYC, and under these 'acoustical heavens' the organ is placed at the front of the church on either side, and then in the gallery at the back. Add two brass choirs to that, and well, then you have possibilities."

On Columbia Records

*Also available on tape
DAVID AMRAM: No More Walls. David Amram (conductor, various instruments); instrumental ensembles. Shakespearean Concerto; Autobiography for Strings; ‘King Lear’ Variations: São Paulo; Waltz from ‘After the Fall’; Going North; Wind from the Indies; and three others. RCA VCS 7089 two discs $6.98.

Performance: Pop-classical eclecticism
Recording: Very good

The idea here is to showcase the extraordinarily wide-ranging musical gifts of David Amram. For a composer-performer who has done everything from serving as the first composer-in-residence of the New York Philharmonic to writing film and theater music to maintaining and playing in his own jazz group, the spotlight is surely well-deserved.

The music runs the gamut of Amram’s work: works for full orchestra like Shakespearean Concerto and Autobiography for Strings; chamber music; incidental theater music; West Indian-styled music; weird mixes of jazz and Oriental improvisations. Obviously, the man has enough impulses going in enough directions to last a less talented composer three or four lifetimes. Yet, at the age of forty-one, Amram has touched all these forms and touched them, I would say, with integrity and enthusiasm.

Like the former chief conductor of the New York Philharmonic, however, Amram is in danger of spreading his talent too thin. One keeps having the feeling that his Renaissance-man range of interests sometimes becomes an excuse for avoiding the meat-and-potatoes hard work of coming up with a piece of music that is plainly and simply on its own, without benefit of five or six alternative points of reference.

I don’t mean to be too hard on Amram, because I have enormous respect for his abilities. I just can’t help but wonder if he himself really knows how good he could be.

Don Heckman

BACH, J. S.: Sinfonia in D Major (BWV 1045; Concerto in D Minor, for Violin, Oboe, Strings, and Continuo (BWV 1060), reconstructed by Harnoncourt); Concerto No. 1 in D Minor, for Harpsichord, Strings, and Continuo (BWV 1052).

Reviewed by PAUL KRESH • ERIC SALZMAN • LESTER TRIMBLE

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Performance: Especially good in BWV 1060
Recording: Questions of balance

This Bach collection contains one of the most interesting curiosities I know: a concerto movement of about seven minutes in length whose torso (the ending has been partially reconstructed here) is considered to have been an opening sinfonia for a cantata. The solo instrument is a violin, pitted against an orchestra of the usual strings, two oboes, three trumpets, and timpani. The work has been a favorite of mine ever since I heard its first recording by Karl Haas in a now-deleted Bach-Handel program (Vanguard 199SD). A great deal of the excitement that accumulates in this piece is the result of the technical feats called for in the violin part, an extended baroque figuration (an arpeggio figure which has to be played across the four violin strings) that is calculated to exhaust even the most virtuoso fiddler. The aforementioned Haas recording was not altogether a success because of the technical limitations of the first violinist; in Harnoncourt’s performance, the piece again unfortunately does not quite come off, partly because of some balance problems that obscure the solo violin on occasion and partly because the whole reading sounds curiously noncommittal—the vibrancy and excitement of the score just isn’t there.

Balance problems are also heard in the big D Minor Harpsichord Concerto, but this is partly a problem of aesthetics. The Concentus Musicus prides itself on having absolutely natural balances in recording—no separate mike, for instance, for the solo harpsichord. In fact, the way it sounds here is undoubtedly the way it would sound in the hall, allowing the listener a reasonably close-up seat. Yet there is an enormous amount of Bach’s writing for the solo instrument (note especially those complicated left-hand passages) which is by and large obscured by the accompaniment. Of course, you can hear those sections quite clearly if you bring up your volume, but then the full tutti are likely to blow you out of your seat. I might add that the lightly scored sections of the music permit the harpsichord to emerge without difficulty. Is it, then, a question of Harnoncourt’s small orchestra playing too loud (there are only six violins, and one each of viola, cello, and violone), or should one have to compromise through separate harpsichord miking for the sake of the listener at home? It’s a difficult problem, and I’m not certain that there is an ideal solution.

In any case, this performance of BWV 1052, which was also contained in the complete Bach Harpsichord Concertos recording on Telefunken (the remaining concertos being by Gustav Leonhardt and his group), is a commendable one, and the sound of the period instruments is, in spite of the balance question, worth hearing. The final concerto, the familiar one for violin, oboe, and strings, has been newly reconstructed by the conductor; it is the most successful and exciting interpretation of this disc, and here there are no balance problems.

I.K.

BARBER: Piano Sonata, Op. 26 (see PROKOFIEV)

(Continued on next page)
RECORDING OF SPECIAL MERIT


Performance: Superb

Recording: Superb

Not so very long ago, the Guarneri Quartet came out with their beautiful album of the late Beethoven quartets, and now here is the Yale Quartet, with one entirely comparable in excellent to the Guarneri's. How to choose between them? I don't think one can, and if a preference must be expressed in one direction or another, it will have to be on the basis of such things as the touch of mystery that the Guarneri occasionally add, or the utter justness in balance and superperfection of intonation of the Yale.

In their interpretations, the Yale Quartet has tried no innovations, though they have a personal view of tempos, which are here and there a bit faster than usual. The Op. 135 opening movement, for instance, is exceedingly brisk, which lends an air of extra tension to the already tense music. The fifth movement of Op. 131 is another such example, and, indeed, the tempo is a bit more than the ensemble can handle cleanly in this exceedingly difficult area of contrapuntal interchanges. But, for the most part, I can only report that these interpretations and performances rank with the finest I have ever heard. I prefer the Guarneri's Grosse Fuge to some extent, but that is partly because their recording is a bit lower-pitched in timbre, and the insanely insistent jogging rhythms in the violin get on one's nerves to a lesser degree. You can't blame that on the ensemble, though. The fault—if fault it be—really lies with Beethoven.

L.T.

RECORDING OF SPECIAL MERIT

BEETHOVEN: Variations for Piano: in F Major on an Original Theme, Op. 34; in E-flat Major (with Fugue), Op. 35 ("Prometheus"); in D Major, on the Turkish March from "The Ruins of Athens". Sviatoslav Richter (piano). Melodiya/Angel S 40183 $5.98.

Performance: Splendid

Recording: Roomy

A most enjoyable discful of music-making, this Richter recital: the fascinating Op. 34 Variations (wherein each variation drops in key, in alternating minor and major thirds, to arrive again at the home key at the end), together with the playful "Turkish March" Variations and the luxuriant "Prometheus" Variations. Richter, in the manner of Herbert von Karajan at his best, savors every bit of Beethoven's juice to be had from this fare, whether it be figuration, rhythmic quirk, or passing dissonance, but without ever losing the line of the whole. In short, we have here music-making at its best.

As with the other piano recordings made in the USSR of late, the sound is roomy rather than intimate, but the music survives the sonics, and superbly.

D.H.


Performance: Sensible

Recording: Excellent

Glenn Gould's diversified interests here take in two Elizabethan composers, but William Byrd gets the lion's share of the disc space. This selection of music originally intended for harpsichord is an admirable one, although, of course, I prefer it, for reasons of both clarity and color, on the original instrument. Nevertheless, if it must receive performances on the piano, I cannot imagine it more sensibly performed than it is here. Gould seems to eschew many of his pianistic mannerisms such as the exaggerated staccato. He is extremely careful to delineate the lines, and even his bent for overly rapid tempos is moderated in most of the pieces. Those expecting great pyrotechnical displays are apt to be disappointed until the final quarter of the program, so correct is Gould about such matters as proper dance tempos—the Byrd pavans and galliards are models of properly judged speed. Gould plays a good many of the Elizabethan ornaments, though not all (he does not use the slide much), probably a sensible decision taken in consideration of the very different natures of the two keyboard instruments. In sum, this is an exceptionally well-played anthology. The recording is very faithful, even to the quite audible obligato humming on the Gould.

J.K.


Performance: Generally good

Recording: Good

The Mexican composer Carlos Chavez was in his mid-twenties when he and the revolutionary muralist Diego Rivera undertook a ballet about Man, the Machine, and Commerce—Caballetes de vapor (Horsepower), which Chavez conducted in concert form in Mexico in December, 1934, and which Leopold Stokowski presented in its stage version in Philadelphia, March 31, 1932. At the time of writing, Chavez's memories of his European peregrinations during 1922 must have been fresh in his mind, for a good part of the Horsepower score affects the style mécanique favored by Homeier and other European composers of the day. The other aspect of Chavez's score is populist à la Kurt Weill, but with an unmistakably Latin-American and Mexican flavor. The music, in effect, represents Chavez being the first to achieve the mastery of integration of regional materials and European technique represented in his Sinfonia India a decade later.

The suite recorded by the Louisville Orchestra is that published in the 1962 Boosey & Hawkes pocket score, and the eight episodes of the original ballet: Interlude II and the final Danza of Men and Machines are omitted from the concert suite and from this performance. The Louisvillians seem a bit rhythmically unsure amid the complexities of the first movement, but the final two come off in splendid fashion.

The real surprise of this record, however, is the non-Hispanic and very lovely score from the pen of Enrique Granados, who, with his Danzas Espanolas for piano, his songs, and his guitar Goyescas, is something of a Spanish Chopin in his exquisite lyrical and coloristic sensibility. If we are to trust opus numbers, the symphonic poem Danze, Op. 21, must have been composed some years before the Danzas Espanolas (Op. 37), which date from 1893. In any event, I concur with the observation made by Gilbert Chase in his book The Music of Spain (1941), in which he speaks of Danze as "a beautiful and finely wrought work, well worth the attention of orchestral conductors." The score affects the style mecanique favored by Granados' arrival in this country for the world premiere of his opera Goyescas at the Metropolitan Opera (and his wife perished on the return voyage to Spain when their ship was torpedoed by a German U-boat), the Fourth Romanische Music Festival at Butler University last May was the occasion for its performance by Jorge Mester and the Louisville Orchestra. The only one I can recall hearing of this very lovely score is the first section, Danze and Virgil, is somberly atmospheric; the second, Paolo and Francesca, is based on the same tragic tale from Canto V of The Inferno as Tchaikovsky's famous orchestral fantasy on Dante's narrative. What Granados stressed was terror and passion, Granados sends out a poignant effect the pathos and poetry of the ill-fated lovers and their end. Surprising and highly original is Granados' inclusion in this movement of Francesca's narrative from Dante set for soprano soloist. Mary Lee Maull phrases Granados' long melodic lines beautifully, though her enunciation is not always impeccable.

No text is included in the record's program notes, and though the notes deal quite adequately with the Chavez score, there is not a single word on the Granados work. Be that as may, the piece speaks beautifully for itself—a minor masterwork of the late Romantic period. The performance is splendid, the recording excellent.

D.H.

RECORDING OF SPECIAL MERIT

CHOPIN: Polonaise-Fantaisie in A-flat Major, Op. 61; Mazurka in A Minor, Op. 17, No. 4; Etude in G-flat Major, Op. 10, No. 5 ("Black" (Continued on page 74))
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**LEOPOLD GODOWSKY**

A splendid recital of his piano works

stiff and not too coherent modern music. Nevertheless there are moments of real intensity, as though the music were moving, uncertainly and awkwardly, toward saying something that never does get said. Perhaps instead of realizing several different versions—two of four versions are recorded here—Hiller should have found a way of integrating the best of the four into a more meaningfully realized whole. And this would have left room for another representation of Buffalo's varied efforts.

All the performances are excellent and, since they are all under their respective composers' supervision, they are presumably authentic. The recording is first-rate, and the quiet DGG surfaces are a continual benison. Inspiration flags in the finale, whose vigor of gesture is not matched—and at its best—in the first movement—combines the ardor of Schumann with the formal and textural clarity of Mendelssohn. The same vein is continued, though somewhat drawn-out, in the slow movement, a kind of song without words. Inspiration flags in the finale, whose vigor of gesture is not matched by its thematic substance. The performance by the veteran pianist Paul Baumgartner is excellent, as is that of the accompanying orchestra under Erich Schmid's baton.

Othmar Schoeck (1886-1957) was one of the partisans of Swiss music at the time of his death, and like his slightly younger Finnish contemporary Yrjö Kilpinen (1892-1959) he carried on in an idiomatic style, with an output of some four hundred lieder, the major work of which is Choral in C Major, Italian Ground; Pavan and Galliard, “The Earl of Salisbury” (see BYRD).
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The Bach Cantatas

Telefunken embarks on the ambitious project of recording all (over two hundred) of them

By JAMES GOODFRIEND

The frontispiece of J. G. Walther's Musikalisches Lexicon (Leipzig, 1732) shows a cantata performance in a South German church.

A GOOD IDEA rarely occurs to only one person. It is, rather, in the air of general thought, like a perfume wafted about by random currents until some three or four persons, rather than one, notice it and point out to others that there are flowers nearby. Therefore, I can take no credit at all for the fact that, so soon after I commented in these pages that the unrecorded cantatas of J. S. Bach constitute the largest body of recordable great music in existence, the Telefunken company has announced its plans to record and release the complete cantatas. The firm followed that announcement almost immediately with the first two volumes of the series, comprising cantatas one through eight.

The records are being produced for Telefunken by Wolf Erichson, a modest man not sufficiently known in the United States, who tends to hide his name and credit (the has produced hundreds of records) in small type in some inconspicuous place in the package. Erichson is a model producer. His familiarity with recording techniques is always up to the moment, his knowledge of musical repertoire and performing style is very nearly encyclopedic, and he has exquisite taste. I have never heard a bad record produced by him, nor do I expect to, and I have heard a great many brilliant ones.

The production of the Bach cantata albums is, I think, typical of his work. The performances will not all be done by a single group, but will be shared by the Viennese Concentus Musicus under Nikolaus Harnoncourt and Amsterdam ensembles under the direction of the harpsichordist Gustav Leonhardt. Most of the first two albums is given to the former group, together with the Vienna Choir Boys and the Chorus Vien- nensis directed by the experienced and highly capable Hans Gillesberger. The soloists include the boy soprano soloist (by custom never named) of the Vienna Choir Boys, Paul Esswood, as male alto; Kurt Equiluz as tenor; and Max van Egmond as bass. The records are packaged in hand-some uniform boxes, two to a box, and the package includes three separate printed inserts: notes on each cantata by Alfred Dürr (in English, French, and German) together with full texts (also in three languages); a general discussion of the Bach cantatas, the performing groups, and the authentic instruments and performing practices used in these recordings; plus, believe it or not, complete miniature scores. In short, it is an ideal presentation.

To the best of my knowledge, only five of these first eight cantatas have been recorded before; Nos. 2, 3, and 5 are completely new to records. The opening chorus of No. 2 is a powerful essay in austerity and archaism. There is no independent orchestral part; rather, the voices are doubled by the strings, oboes, and four trombones. Number 3, on the other hand, has a first movement of fascinating and wild complexity, composed of three basic elements: a florid duet of two oboes d'amore; a string accompaniment; and a four-part chorus with the chorale melody, in long notes, in the bass, doubled by bass trombone and continuo. The interweaving of elements so complex in themselves, and so massive, produces a movement that should edify the most sophisticated connoisseur. Even putting aside the emotional communicative power of the movement, the sheer craft inspires awe.

There is a host of other things to discover in these cantatas: a superb duet and an accompanied recitative for all four voices in No. 3; fine tenor and bass arias in No. 5; and, of course, the manifold joys of the more familiar cantatas, which may be known from previous recordings. I have in the past discussed Cantatas Nos. 4 and 8; Nos. 1, 5, and 6 have very nearly as much to offer.

The performances are impressive, and most so in that area in which cantata recordings are usually not: the soloists. The best-known quantity is van Egmond, who has demonstrated in several earlier recordings that he is a fine and stylish singer with an attractive voice. Some readers may also feel they know what to expect of Equiluz, but I find his singing here so far superior to anything I have heard from him in the past that I can scarcely believe it is the same singer. Esswood is astonishing in his ability to cope with the floridities of the alto part without in the least losing one longing for the richer sound of a female contralto, and the two boy sopranos, but particularly the Viennese one, are simply sensational; one need make no musical or vocal allowance at all for their being boys.

The choral and orchestral contributions are generally excellent, and the woodwind playing is really fine. There is one raggedness in places in the Amsterdam performances, enough, perhaps, to call attention to itself, but disturbing only in comparison with the remainder of the set. The technical side of the recordings is also exceedingly well managed.

There is, of course, no competition at all for three of these cantatas. In the case of No. 8, I continue to prefer the DGG Archive recording for its more enchanting tempo in the opening chorus and for general neatness of execution. There are also other fine performances of Nos. 1 and 4, but despite some possible disagreement with Telefunken on the use of soloists rather than chorus in some movements, the move-ments of the latter, I would choose these new recordings over any previous ones. Numbers 6 and 7 are also available on Musical Heritage Society records I have not yet heard, but it is hard to see how the present performance of No. 6, at least, could be improved upon. Musical Heritage Society is also engaged upon the project of a complete set of the cantatas. Surely two such efforts will be sufficient to do honor to J. S. Bach in each and every cantata, and other companies will not find it necessary, as they sometimes have in the past, to jump on the bandwagon with series of their own. Surely?—one can only hope. There are other ideas in the air: the Purcell odes, the Lully operas, Rameau, Sweelinck, Schmelzer, Schütz. . . .

BACH: Cantatas: No. 1, "Wie schon leuchtet der Morgenstern"; No. 2, "Ach Gott, vom Himmel sieh darein"; No. 3, "Ach Gott, wie manches Herzeleid"; No. 4, "Christ lag in Todesbanden." Soloist of the Viennese Boys Choir (soprano); Paul Esswood (alto); Kurt Equiluz (tenor); Max van Egmond (bass); Vienna Boys Choir; Chorus Vienensis; Concentus Musicus, Nikolaus Harnoncourt cond., TELEFUNKEN SKW 1/1-2 two discs $11.96.

BACH: Cantatas: No. 5, "Wo soll ich fliehen hin"; No. 6, "Bleib bei uns, denn es will Abend werden"; No. 7, "Christ unser Herr zum Jordan kam"; No. 8, "Lobe, Gott, wann werd ich sterben." Soloist of the Vienna Boys Choir (soprano, in Nos. 5 and 6); Solist of the Regensburg Cathedral Choir (soprano, in Nos. 7 and 8); Paul Esswood (alto); Kurt Equiluz (tenor); Max van Egmond (bass); Vienna Boys Choir; Chorus Vienensis; Concentus Musicus, Nikolaus Harnoncourt cond. TELEFUNKEN SKW 1/1-2 two discs $11.96.
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almost always at his best when writing for the human voice. Nevertheless, he produced some thoroughly rewarding piano pieces, and it is good to have all of them-including the two with chamber-ensemble accompaniment (and excluding only one insubstantial-looking title listed in Grove's Dictionary)—assembled in mostly expert performances on these two well-filled discs.

Rifkin responds warmly to the often enigmatic lyricism of the music, and builds its characteristic tiny thematic germs into convincing larger structures without minimizing their epigrammatic quality. Kubelik's instrumentalists offer spirited support in the concerto movements, through his own inflexibly accented and pedalling are occasionally a shade approximate—he is not always careful enough to put the stress on the first note in the two-note figures that recur throughout the second movement of the Concertino—and one or two of the frequent tempo changes in the Capriccio are not quite perfectly dovetailed by soloist and conductor.

In spite of these minor flaws, I enjoyed the performances enormously. The deliciously impish Concertino is perhaps the most fully realized of the six works. But among the other pieces there are also many lovely moments. The most sustained solo piece is the nimbly and majestically 1710, which consists of two surviving movements from a three-movement sonata written in 1693, a wrathful outburst of a writing man in a political demonstration in Brno.

On a smaller scale, the twelfth of the fifteen short pieces that make up the cycle On an Overgrown Path is typical of Janáček's mosaic technique at its best. The most unassuming of materials—a repeated anapest rhythm, a hint of horn-call harmonies, and a simple descending chromatic progression—are combined to make a composition of telling poise and eloquence. The reach may be more modest here than in works like Jennifer or the Glagolitic Mass, but the grasp is no less masterful.

B.J.

Josquin Des Prés: Recordatis de meus nobiles, La plus douce Scaramellla, De tous biens playe (three- and four-voice settings); In te Domine speravi; La narrantia; Qui belles amours a; Comment paiet avoir joye; Quanta je voy; Baisse moy; Entrez seigneur; Une mousque de Bicace; Se j'ay perdu mon ame. The Nonesuch Consort, Joshua Rifkin dir. Nonesuch H 71261 $2.98.

Performance: Very good

Recording: Excellent

Credit Joshua Rifkin and Nonesuch Records with another enterprising Renaissance collection, this one devoted to chansons, frantool (secular Italian songs in three or four voices with the melody in the highest part), and instrumental pieces from the pen of the greatest Netherlands composer of the late fifteenth and early sixteenth centuries. An enormous influence in his day, Josquin worked a major portion of his life in Italy, a fact well documented by the selection of Italian-styled pieces included here—e.g., where French melodies may have provided the impetus. Sophistication and elegance, as well as considerable attention to form, are the distinguishing characteristics of Josquin's style. There is a certain openness to him, where Rifkin's group captures well, although I think that Josquin might have intended a bit more feeling for the "affect" of the text than one gets here. The singing is very accomplished (In te Domine is particularly well done by countertenor William York). The instrumental pieces, too, are effectively presented, yet at times I would have preferred a less intense, more relaxed style, in the manner of the old Safford Cape performances, so that the elegant lyric qualities are not so submerged. Texts and translations are provided, and the sonatas are intimate and detailed.

J.A.


Performance: A tour de force

Recording: Good

The Fantasy and Fugue on "Ad nos," composed in 1850, is Liszt's most ambitious and largest-scale organ work. Based on the Anabaptist hymn from the first act of Meyerbeer's Le Prophète, this work, with its fantasy, choral, and dramatic elements, is in its own way the organ counterpart of the great B Minor Piano Sonata. The shorter Variations on "Weinen, Klagen," originally written as a piano piece in 1862 and based on the bass line of Bach's cantata of that name, was arranged for organ by Liszt the following year. Both pieces are excellent works of their kind, brilliant, rhetorical, and, on occasion, quite bombastic, with considerable and predictable use of the organ's power. The American organist Daniel Chorzempa (b. 1944) makes a most convincing case for both works. He has the requisite flair and temperament, and his technique is wonderfully splashy. At the same time, he is able to dig below the surface. More and more attention is being devoted to Liszt and to the variety of his output, and it is good to have such playing as this to enhance the effort. The sonic reproduction, moreover, is splendid.

J.A.


Performance: Inadequate

Recording: Fairly good

The Russian expatriate Nikolai Medtner (1880-1951) was a versatile composer, particularly of piano music. His numerous songs did not reveal much originality, but many of them used poetic texts from the best sources (Goethe, Heine, Pushkin), and often the adventurous piano accompaniment compensates for the lack of melodic inventiveness. A recital devoted to Medtner songs is not a bad idea at all, but it takes a Gedda, a Christoff, or an Arkhipova to lend distinction to such borderline repertoire. The vocal artist on this record misses the mark by a country mile. Pleshakov plays the demanding pianistic parts with verve and great skill, and the recorded sound is clean, but lacks coloristic variety.

G.J.


Performance: Splendid

Recording: Adequate

For anyone not already familiar with Mendelssohn's essays in contrapuntal writing, this set of Preludes and Fugues should provide a happy introduction. It was, of course, Mendelssohn who began the rediscovery of
J. S. Bach in the nineteenth century, and these adventures in fugal writing were a direct result of his fascination with the Baroque master. They give a delightful insight into Mendelssohn's talent—not complete with its assets and its liabilities. Everything is here: inspiration, originality, astonishing technical adroitness, and occasional pedantry. The best of the fugues are charming in their wide-eyed neo-Classicism à la the early 1800's. Annie d'Arco plays the whole of this Opus 35 splendidly, and one can only wish that the recorded sound were as brilliant and glowing as her playing.

L.T.

MENNIN: Piano Concerto. YARDUMIAN: Passacaglia, Recitatives and Fugue (Concerto for Piano and Orchestra). John Ogdon (piano); Royal Philharmonic Orchestra, Igor Buketoff cond. RCA LSC 3243 $5.98.

Performance: Pianistically brilliant Recording: See review...

John Ogdon's dedication to the composers of our time is admirable, but I am not sure that in this case it is matched by his discrimination in choosing works to champion. There is a purely technical consideration that I should mention at once, since in any case there is something to do with the relative ineffectiveness of at least the first of these contemporary American concertos as recorded here. The sound of the orchestral bass-line comes over very weakly. And since, on the other hand, there is a curious "bump" of resonance that makes the double-basses loom distractingly large in the texture whenever they are playing on or around their low A-flat, I infer this to be a problem of the hall where the recording was made. It is particularly damaging in the concerto by the Juilliard School's President Peter Mennin, because here the chromaticism of the writing demands a strong underpinning in the bass if the harmonic idiom is to sound more than trivial.

But, having said that, I must add that the other features of this breakneck virtuoso piece don't encourage me to make too big an allowance for the distortion that results. For the piece seems trivial in other areas of its style, too, and Ogdon's dazzling account of the solo part, backed by decent if occasionally tentative orchestral playing under Igor Buketoff, obviates the performance as an excuse for this impression. I enjoyed Richard Yardumian's unpretentious work more. Admirers of the fifty-five-year-old Philadelphian will know what to expect. For others, his music may perhaps be described as an American counterpart of Vaughan Williams—or Kodaly, rather, since there is sometimes a certain lack of purposefulness or definition in the movement of the lines. But there is also a noble beauty in Yardumian's modal language that is not invalidated by its old-fashionedness.

This particular piece is characteristically ruminative in mood and structure, yet its content was substantial enough to hold my attention more firmly than the man-of-the-world. flashy brilliance of the Mennin concerto. But neither work seems to me to treat solo-tutti relations in a way sophisticated enough to justify the title (or subtitle) "concerto."

Incidentally, according to the score kindly lent me for reviewing purposes by the publishers (Carl Fischer, Inc.), there is a cut of about four pages in the Mennin, starting at page 127. Since the composer supervised the recording, it must be assumed that this revision has his approval.

MONTEVERDI: Il Ritorno d'Ulisse in Patria (see Best of the Month, page 65)

RECORDING OF SPECIAL MERIT

MOZART: Divertimento in B-flat Major (K. 186); Divertimento in F Major (K. 253); Divertimento in E-flat Major (K. 289); Adagio in F Major (K. 411). Netherlands Wind Ensemble, Edo de Waart cond. PHILIPS 6500 003 $5.98.

Performance: Outstanding Recording: Excellent

I've read with interest the reviews of previous issues by the Netherlands Wind Ensemble of what is to be a complete set of Mozart's wind music on five discs. Judging from the present recording, which principally contains lightly diverting works (the Adagio is another story), the finished product is definitely worth owning. The playing here is wonderfully clean and spirited, full of humor where called for, yet properly gracious and lyrical. Tempos in particular are well judged, and the sonic reproduction is extremely detailed and clean (a certain amount of key clicking may prove annoying to some, however). The alternate versions of this music are by the London Wind Soloists under Jack Brymer on London. They, too, are first-rate. Take your choice.

(Continued on next page)
Muscular strength never flags—these are distinctly "masculine" interpretations—and yet momentary sensation is evoked as a delicacy in itself, worthy of full savoring. As in the Valses, Simon has such unfailing control of the rhythmic flow that sections such as "Le Gibet" in Gaspard become almost eerily evocative—the listener lives every forward impulse, every hesitation, every understated climax along the way. These are as close to ideal performances as I ever expect to hear, and the recorded sound is well-nigh perfect.

L.T.

**SCHÖECK:** *Sonntaer-Motetten* (see GOETZ)

**RECORDING OF SPECIAL MERIT**

**SCHÜTZ: Psalms of David ("Ach Herr, straf mich nicht", SWV 26; "Herr, unser Herrschar"); "Wie mich nicht," SWV 24; "Ich freue mich," SWV 27; "Wie lieblich sind deine Wohnungen," SWV 29); "Herr, unser Herrscher," SWV 30; "Wie schön leuchtet der Morgenstern" (SWV 463).

**RECORDING OF SPECIAL MERIT**

**ABBOT SIMON**

*Close to ideal in Ravel piano music*

Muscular strength never flags—these are distinctly "masculine" interpretations—and yet momentary sensation is evoked as a delicacy in itself, worthy of full savoring. As in the Valses, Simon has such unfailing control of the rhythmic flow that sections such as "Le Gibet" in Gaspard become almost eerily evocative—the listener lives every forward impulse, every hesitation, every understated climax along the way. These are as close to ideal performances as I ever expect to hear, and the recorded sound is well-nigh perfect.

L.T.

**RECORDING OF SPECIAL MERIT**

**RAVEL: Valses nobles et sentimentales; Gaspar- de la nuit.** Abbey Simon (piano). Turn- about TWS 34397 $2.98.

**Performance:** Superb

**Recording:** Splendid

Pianist Abbey Simon has achieved in this recording performances of the piano music of Ravel which I can only describe as being among the best I have ever heard (and I have heard some good ones!). What makes these remarkable even by comparison with the other "greats" is Simon's immensely authoritative feeling for the rhythmic structuring, which, when it is fully felt and expressed in Ravel, takes the music over into another dimension of meaning. Pretty as the surfaces may be, nobody could ever call this "salon" music when a pianist grabs hold of the tail and springs the lithe animal around in a circle, to his own and our surprise. The *Valses nobles et sentimentales* surge, hang poised, and evanesce into clouds of color with a suavity and strength that are indeed "nob- le." the music flows like a July night, churned up here and there in sparkling reflections and waves of mist-like emotion.

Magnificent settings of this kind had to be abandoned not long afterwards, because of the outbreak of the Thirty Years War and its impoverishment of Germany's resources (of all kinds). Toward the end of his life Schütz returned to multiple choirs in a few works, notably the German Magnificat, written when he was eighty-six.

The album title, curiously enough, is that of a work attributed to Schütz but in fact nothing more than a copy of a work by Gabrieli. Schütz, too, is splendid in its effect, and it is good to have it included, if only to show the Gabrieli influence.

The performances involve a variety of instruments of the period, including organs, cornetti, sackbutts, and cornettos. The singing is first-class, and the "affect" of the texts comes across far more clearly than usual in music of this period. Roger Norrington, a thirty-eight-year-old former tenor, has conducted the Heinrich Schütz Choir since 1962, and has made a number of fine recordings (especially of Schütz) over the last few years. I had the pleasure of hearing him conduct a mixed orchestral program a year and a half ago in Lisbon, and can attest that he is not just a Schütz specialist, but the whole package.

Finally, Argo has provided excellent annotations, texts, and translations, as well as superb sonics that make the most of the separation of the choirs.

I.K.

**SCHWARTZ: Signals** (see FOSS)


**Performance:** Dispassionate

**Recording:** Disappointing

I waded through quite a few recordings of both works under consideration here in an effort to pin down what it was about these Ormandy-Philadelphia recordings that left me so totally unmoved. In the *Poem of Ecstasy* I found neither the elemental surge and sonic impact of the Zohn in my estimation that of the Los Angeles Philharmonic, nor the brilliance and fierce dynamism of the more recent Abbado-Boston Symphony disc. Ormandy's solo trumpet seemed far too much in the foreground, the string tone lacked genuine body and focus, and the stereo spread was minimal compared to the excellent spread obtained in the Cundie recording of both scores by the Dallas Symphony under Donald Johanson.

Though I would say that both the London and DG discs admittance to fill the need for wholly satisfactory recordings of this version of the *Poem of Ecstasy, Prometheus* in my estimation has yet to be adequately realized in recording. I have no doubt, however, that it will come to pass—if not on present-day discs or tapes, then in video tape or disc format that will provide the color-organ effects that Scriabin prescribed in his original scoring of this, his last orchestral work, completed in 1911. It is far more complex in texture and rhythmic figuration than *Poem of Ecstasy*—music that titillates, irritates, and finally overwhelms, unified by a motif strongly akin to the "Muss es sein" of Beethoven's last quartet. The solo piano plays a role as protagonist comparable to that of the trumpet in *Poem of Ecstasy*. A wordless chorus enters toward the music's *Continued on page 82*
The Dual 1219.

Still the favorite of the purist who insists upon a full-size professional turntable.

Ever since its introduction two years ago, the 1219 has been widely acclaimed and accepted as the "no-compromise" automatic turntable. Today, it is still the favorite of the more serious music lovers, those purists who are never quite satisfied unless every component in their system is "state-of-the-art."

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final pages, moving to a climax of well-nigh cosmic dimensions, then receding into the background, after which the full forces gather themselves for one last chord of affirmation which, when brought off properly, can be truly overwhelming.

Unhappily, no recording currently available brings the Prometheus music off to full effect, though the idea of the thing is conveyed on a Soviet MK disc of a 1947 radio performance conducted by the late Nicolai Golovanov with Scriabin’s friend and colleague Alexander Goldenweiser as solo pianist. Refined the performance certainly is not, but the stylistic assurance is there, and the ending is absolutely overwhelming.

Which, when brought off properly, can be truly some sense of limitless surrounding space.

**RECORDING OF SPECIAL MERIT**

**VAUGHAN WILLIAMS: Riders to the Sea.**

Scriabin's Poem of Ecstasy as a touchstone, it becomes clear to anyone with good ears that Scriabin's late orchestral works need recorded performances that not only will convey inner detail, but will also provide a sense of limitless surrounding space. *D.H.*

**VAUGHAN WILLIAMS: Symphony No. 5, in D Major; Overture to "The Wasps."**

L.T. Bartley; Christopher Hyde-Smith (solo flute). Women's Voices of the Ambrosian Singers and Orchestra Nova of London, Meredith Davies cond. **ANGEL: S 36819 $5.98.**

**Performance:** Superb

**Recording:** Excellent

Angel Records has been doing a beautiful job in issuing chapter after chapter of what might be called the Vaughan Williams saga. Not too long ago it was the remarkable and little known "Masque for Dancing." Now it is the Magnificat, dating from far 1932, and Riders to the Sea, the one-act opera based on a play by J. M. Synge, the music coming from the same period.

They are both extremely appealing works, though in recorded form I find the Magnificat by far the more compelling. Its straightforward use of chorus, orchestra, and soloists in the flowing, modal, Anglo-Saxon Romantic Impressionist style for which Vaughan Williams was renowned poses no difficulties whatsoever in understanding and enjoyment. It is a lovely and individualized piece.

Riders to the Sea, on the other hand, is a work which I suspect one would have to experience in the theater for real appreciation. It is a tragic one-acter, set almost verbatim to Synge's text, in a semi-parlando style somewhat à la Pelleu. On stage, this no doubt means the action can proceed at a theatrical pace, rather than the slower one of conventional opera. Hearing only the music, however, one cannot know this: the experience reduces itself to a moody one. The music is sea-swept in fine British fashion, with elegance of craft and color everywhere in evidence. But in the overall, rather monotonous consistency prevails.

The performances in both works are striking. Soloists are splendid, so are the chorus, the orchestra, the conducting, and the engineering. Anyone who loves Vaughan Williams will want this album on his shelves. *L.T.*
The work has been a particular favorite of mine for more than twenty years, and in that time Boult has consistently come closer than anyone else I know to the overwhelming spiritual impression Vaughan Williams himself made with it when I heard him conduct it in London's People's Palace shortly before his death in 1958 (it was characteristic of the man that he should have traveled to one of the run-down areas of London to conduct what must have been almost his last performance).

Previn's Wapsy Overture makes a genial filler, but Boult's choice of the Serenade to Music (in its original sixteen-soloist version) is more substantial and appropriate. And though Previn's recording is an excellent recording, his disc suffers from a couple of technical problems: the beginning of the first note in the final passage seems to have been chopped off by the engineers, and my review copy—like one or two other RCA Dynalux discs I have recently encountered—was warped badly enough to cause occasional groove-jumps. (I understand this is a temporary manufacturing difficulty that RCA has already taken steps to correct.)

B. J.

RECORDING OF SPECIAL MERIT

VERDI: Requiem Mass. Maria Caniglia (soprano), Ebe Stignani (mezzo-soprano), Beniamino Gigli (tenor), Ezio Pinza (bass). La Scala Chorus and Orchestra, Tullio Serafin cond. SERAPHIM 01B 6050 two discs $5.96.

Performance: Historic and treasurable
Recording: Dated but listenable

When this historic performance of 1939 was reissued in Angel's Great Recordings of the Century series, my review (September 1961) said, among other things: "... Serafin molds the music with a masterful hand, and while he disregards many of the composer's subtle dynamic markings, his shaping of the overall design is unerring, and his interpretation is truly a great dramatic experience. The orchestral and choral performances are impressive throughout and the soloists respond brilliantly to Serafin's guidance.

"And what a group of singers they are! The majesty and incomparable tonal beauty of Ezio Pinza's solos... place his contribution beyond the reach of all recorded competition. Nor can we find the equal of Ebe Stignani's account of the mezzo-soprano part in any modern recording. As critics have often pointed out, neither Maria Caniglia nor Beniamino Gigli is flawless here, but theirs are flaws of grandeur.

"Now, more than ten years later, all I can add is that the performance has been reissued at half the price. Get it!

G. J.

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LONDON

MAY 1972
OPERATIC COLLECTOR’S ITEMS FROM THE RCA VAULTS
By George Jellinek

Of course the old idea of single-disc operatic highlights for collectors is not entirely new at RCA. That worthy concept has never yielded at once three releases so well planned, and at such a low price, as the three just now at hand: “The Met’s First Butterfly,” “Golden Age Aida,” and “Golden Age Rigoletto.” Here (and elsewhere) the industry’s sometimes sleeping giant seems to be mining its treasures with a purposefulness and savviness that is characteristic of the fertile brain of Red Seal’s new music director, R. Peter Munves.

With one exception, all the excerpts on the Butterfly disc were recorded between 1908 and 1910, following the opera’s Metropolitan premiere in 1907. They offer the première’s illustrious quartet of principal singers, but not, alas, the firm hand of Toscanini, who presided over the Met performances at the time (none of the conductors on these discs is named). Geraldine Farrar is the Butterfly disc’s prime attraction: the warmth and intensity she radiates can still persuade us that her triumphs in this role were richly deserved. The brief “Sai cos’ebbe cuore,” addressed to the child, is particularly moving. Caruso tends to overpower Pinkerton’s music, but they are welcome in context. The engineering—aside from occasional coarseness of tone and the excessive favoring of Panerai—is satisfactory. In sum, this is a performance worth hearing, but it will probably please totally only the uncritical among Beverly Sills’ following.

The Rigoletto disc offers more modern (1917-1928) performances, with the distinct improvement of electric recording. With Giuseppe De Luca’s honeyed phrasing and superb authority, Tito Schipa’s melting vocalism and surpassing elegance, and Amelia Galli-Curci’s touching, poetic, and virtuosic Gilda, an outlay of $2.98 will reward the buyer with nothing less than a rediscovery of this much abused opera. Schipa left no recording of the famous quartet, his place is taken (stunningly) by Caruso in the classic 1917 version heard here.

Even veteran collectors will find treasures here. The Gadski-Homer duet from Aida’s second act was withdrawn early, making its reappearance now after a fifty-year absence, and the final scene of Rigoletto is released here for the first time since 1918! The annotations by Francis Robinson, Gregor Benko, and William Seward can still persuade us that her triumphs in this role were richly deserved. The brief “Largo al quadrapede” in the final act is taken so fast that it becomes a travesty.

The score is given uncut, and so includes Germont’s seldom-heard cabaletta, the second verse of “Ah, fors’è lui,” and other passages omitted from staged performances. These do not always help the dramatic flow, but they are welcome in context. The engineering—aside from occasional coarseness of tone and the excessive favoring of Panerai—is satisfactory. In sum, this is a performance worth hearing, but it will probably please totally only the uncritical among Beverly Sills’ following.

G.J.

YARDUMIAN: Piano Sonata, Recitative, and Fugue (see MENNIN)


Performance: Very good
Recording: A mite hard-toned

Though this recording has been cut for encoded quadrasonic playback, it is compatible also for stereo and mono. In any event, this review is based on normal stereo playback. Not the least of the many reasons for which I have admired Grant Johannesen over the years has been his willingness to seek out new or neglected twentieth-century piano repertoire. This collection of American piano music typifies Mr. Johannesen’s approach in its mixture of amiable and knotty listening fare.

The Copland Piano Variations provide the knotty fare—the work, with its granitic sonorities, standing alongside the Ives “Concord” Sonata and the Barber Piano Sonata as one of the major masterpieces of the American keyboard repertoire. Johannesen’s reading is well paced and extremely effective. The Roy Harris settings of five folk songs (Streets of Laredo, Wayfaring Stranger, The Bird, Black Is the Color of My True Love’s Hair, and Cod Liver) are also knotty in their own fashion. Certainly they are far removed in harmonic idiom and texture from the folk-song stylizations of Copland and Virgil Thomson. The very quiet Black Is the Color and the powerful Cod Liver He are the most striking to my ear. The Dello Joio Nocturne is charmingly ruminative, with a bit of dance flavor adding rhythmic zest to the F-sharp piece. The harmonic textures are various and interesting, amalgamating elements of Copland-ish pan-diatonicism, blues, and lush chromatics.

(Continued on page 86)
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MAY 1972

CIRCLE NO. 2 ON READER SERVICE CARD
The real find in this album, however, is the set of piano pieces called Tangents, by William Bergsma, who, for all his high reputation and twenty-five years of creative activity, has been sparsely represented on records. The first book of Tangents includes a Fanfare, Two Prophecies (from Zephaniah and from Micah), and three animal-world pieces (Unicorns, Fishes, and Mr. Darwin's Serenade). The piano writing is brilliant, the music wide-ranging and mercurial in its changes of mood—forbidding in the First Prophecy, whimsical in Unicorns, and just plain funny in Mr. Darwin's Serenade. The effect is heightened by the epigraphs preceding each piece, which are read by Mr. Johannesen. The performances are one and all first-rate—tender and sensitive in the Dello Joio, sharply etched in Bergsma, and broad-scaled in Harris.

The piano sound is clean, close-miked, and just a trifle hard and lacking in spaciousness. Even so, this is a "must" album, in my opinion, for those with a particular interest in American piano music.


Performance: Piano rolls
Recording: Tonally good, dynamically inadequate

In the days before the phonograph could offer a tolerable facsimile of symphony-orchestra sound, the four-hand piano reduction was the avenue through which music lovers without access to concert halls and major orchestras came to know the great works of the symphonic repertoire. Thus, the reproductions from piano rolls of Romeo and Juliet and Till Eulenspiegel embodied on this Klavier disc do in a sense recreate a bygone era. But so far as this listener is concerned, that's all they do. For—never mind the cuts in the versions recorded here—the piano rolls do not in any sense of the word recreate the actual feeling of "live" musicians playing these arrangements: the reproducing piano simply cannot begin to produce the dynamic range of actual performance. Also, as with all too many piano-roll recordings, even when reproduced in stereo with the greatest conscientiousness and the best will in the world, there are mechanical problems that obtrude—usually problems of steady motion, most evident on this disc in the Schubert Marche militaire. I have found only the Argo disc of Josef Lhevinne's rolls truly convincing in its reproduction. Until such becomes the rule rather than the exception, the result—as is the present case—will remain merely quaint.


Performance: Uneven
Recording: Fairly good

Perhaps it is coincidental that Leontyne Price is at her best here in the only role she has done on stage: Tchaikovsky's Tatiana. I am not qualified to comment on her Russian, but there is ample conviction in her singing, and the musical line is nicely sustained. None of the other characterizations on display find the soprano totally at ease. Her husky timbre and dramatic accents are not quite right for Violetta, and she finds the bravura ending of "Sempre libera" quite troublesome. Elisabetta in Don Carlo could be an excellent role for her, but right now her handling of the aria is still in the blueprint stage, and the unsupported bottom notes expose the singer's persistent weakness in that register. "Ab-scheulicher!" is tentative to the point of lassitude, and, though Miss Price exhibits some lovely top notes in Ariadne's aria, much of it sounds mannered and unconvincing.

The late Fausto Cleva's leadership in this instance was tame and unassertive. Even the engineers seem to have been affected by the pall that hangs over the enterprise; the sound is not always clean. Leontyne Price is a major artist, and even this ill-advised program is not without some thrilling moments. But it fills no need save perhaps that of the company's sales department.
BEYOND THE BASIC REPERTOIRE
By ROBERT S. CLARK

STRAUSS’ “METAMORPHOSEN”

I abominate Rosenkavalier,” a rather extravagant acquaintance of mine told me in the lobby of the Metropolitan Opera House not long ago. We were in the midst of a discussion of the season’s repertoire during an intermission in II Trovatore, and he, an opera-goer of professed catholic tastes, was enjoying the Verdi chestnut. This encounter set me to thinking — then, and several times since — about the general reputation of Richard Strauss’ operas. For it is an odd fact that, although at least four of them — Salome, Elektra, Der Rosenkavalier, and Liebe der Danae, Die schweitsante Frau, Die aegyptische Helena, Die schwiegste Frau, Die Liebe der Danae, or Friedenstag? — Still, what we can know of the late Strauss through recordings — the operas Daphne and Capriccio, Metamorphosen, the Second Horn Concerto, and the Four Last Songs — is enough to throw this estimate into serious question.

Metamorphosen is among the late works that is heard occasionally — but, I think, not often enough. It is a “study for twenty-three solo strings,” in Strauss’ words; each of the ten violins, five violas, five cellos, and three double-basses is allotted a separate stave in the score. Written in March and April 1945, as the Second World War drew to its desolating close, it is an elegy sung over the ruins of Germany for European civilization as a whole and for German culture in particular. The music begins with a series of modulations that is to act as a kind of catalyst as the themes are developed, and within the first forty measures the three major motifs are introduced. One of these recalls a sorrowful phrase in King Marke’s monologue after he discovers the liaison between Tristan and Isolde; a second, broader theme is the basis for a central episode, marked allegro, agitato and Isolde; a second, broader theme is Isolde; a second, broader theme is "In Memoriam.

There are two good recordings of Metamorphosen in the catalog: Otto Klemperer’s (Angel S 35976) and Neville Marriner’s (Argo ZRG 604). It is the latter I prefer, in spite of the greater clarity of some instrumental lines in the other, and some dubious tuning of the strings in massed passages. Sonically, too, the Argo disc, newer by at least five years, is superior to the Angel.
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ANNUNZIO PAOLO MANTOVANI

Among the first releases of London Records was an instrumental version of "La Mer (Beyond The Sea)" b/w "Night And Day" conducted by a talented young musician named Annunzio Paolo Mantovani. Mantovani, for short. That was in 1947. And that marked the beginning of one of the greatest success stories in musical history.

Since 1947, "Monty" (as he has become affectionately known by his fans) has recorded 57 LPs for London. Not to mention the numerous 78s and 45s. "The Mantovani Sound" has become a part of all our lives. Especially the romantic side. It has brought pleasure to as many listeners as any other recording artist on the scene during the past three decades.

Mantovani has enjoyed popularity and success beyond telling. It can truthfully be said he is one of the few artists whose every release consistently finds its way onto the charts.

It is with great pride and affection that on the 25th Anniversary of London Records—and of the successful marriage between Mantovani and London Records—we release the maestro's new LP, appropriately entitled "ANNUNZIO PAOLO MANTOVANI."

It's a very special new LP.

LONDON RECORDS
MAY 1972

ATOMIC ROOSTER: In Hearing of Atomic Rooster. Atomic Rooster (vocals and instruments). Breakthrough; Break the Ice; Devil's Answer: Black Snake; The Rock; and four others. Elektra EKS 74109 $5.98.

Performance: Hiroshima, par favor
Recording: Good

Atomic Rooster presents a strong case for the genocide of rock groups. Loud, witless, meaningless rock nonsense is their specialty. I had suffered through the first half of this disc when my friend Henny Penny came rushing in and asked now who was being alarmist about the sky falling? After an explanation she told me that they didn't sound like any roosters she knew, but a good rooster nowadays is hard to find.

BRIAN AUGER'S OBLIVION EXPRESS: A Better Land. Brian Auger (keyboards, vocals); Jim Mullen (guitars, vocals); Barry Dean (bass, vocals); Robbie McIntosh (drums, percussion). Dawn of Another Day; Morah's Wedding; Trouble; Women of the Seasons; and five others. RCA LSP 4540 $5.98, E

Performance: English vocal rock
Recording: Very good

Auger's salad days trace to a group called Trinity that he led a few years ago, featuring the superb singing of Julie Driscoll. Since that time, Auger has tried, with little success, to put together a group that will adequately showcase his considerable talents as a jazz-styled organist and composer.

This time around he has chosen to emphasize group singing, somewhat in the style of Crosby, Stills, Nash & Young. In terms of sheer musicality, if not vocalizing is Crosby, Stills, Nash & Young. In terms of size group singing, somewhat in the style of styled organist and composer. This audiophile managed to showcase his considerable talents as a jazz-styled organist and composer.

Reviewing ATOMIC ROOSTER and BRIAN AUGER'S OBLIVION EXPRESS, there remains the fact that a performer, even if unskilled and unpolished, should be able to communicate something on some level. Benno is seriously hurting his own songs by his performance of them. But as a performer he is almost nonexistent. He's been given a lot of glossy back-up production (too much, actually), but when he is on he makes it all disintegrate into what sounds like an expensively over-produced audition record. I know that young audiences scorn what used to be called "professionalism," equating it with "phony," but no matter how much definitions change, there remains the fact that a performer, even if unskilled and unpolished, should be able to communicate something on some level.

EL AVRAM GROUP: Any Time of the Year. Avram Grobard, Holly Lipton, Robert Afarian, Yoel Sharr, Ron Eliran (vocals with instrumental accompaniment). Bashana Habaa'h; Yass; Bo Chyul Shel Shokolad; Sisu et Yerushalayim; Ani Zocher; and six others. Monitor MFS 730 $4.98, © M 8730 $6.98, © M 5730 $6.98.

Performance: Homey
Recording: Good

El Avram is a nightclub on Grove Street in Greenwich Village that kept the "El" in its name when it was converted from a Spanish place called "El Chico." The atmosphere in El Avram is high-spirited Israeli, the chef is an Arab from Israel, and the music includes popular songs not only from the Promised Land but from a dozen other countries. It's the sort of place where the customers are liable to clap to keep time, and where informality is practically a religion. On this recording, Avram Grobard, the owner of the club and one of the principal entertainers, attempts to convey the spirit of the place with a program of songs that shift back and forth from the spirited to the sentimental. There's the Israeli hit Bashana Habaa'h ("Any Time of the Year"); a bitter song called The Chocolate Soldier, which comments wryly on the stupidity of war; Sisu et Yerushalayim, a paean to Jerusalem; a gypsy vagabond number sung in Hebrew and in English; a Yiddish rhapsody; and an Armenian item.

Joining Mr. Grobard in the singing department are Holly Lipton, Robert Afarian, and Yoel Sharr, all affable and talented, and "special guest" Ron Eliran, who possesses a fine, intense baritone and has made more than one impressive album on his own, but doesn't show up to sensational advantage here. The program on the whole, however, is vigorous and varied. A "sing-along text" is generously provided.

MARC BENNO: Minnows. Marc Benno (vocals); orchestra. Franny, Good Times; Before I Go; Baby Like You; Back Down Home; and five others. A & M SP 4303 $5.98.

Performance: Not ready
Recording: Elaborate

I don't think I'll let "Minnows"' bait me into being nasty—at least not at any nastier than usual. But I will reflect on how many young computer-performers are doing themselves long-term damage by releasing the kind of album that can nip careers in the bud. Marc Benno is a good case in point. He writes songs that show promise. One or two—Good Times and Before I Go—show considerably more than that. But as a performer he is almost nonexistent. He's been given a lot of glossy back-up production (too much, actually), but when he is on he makes it all disintegrate into what sounds like an expensively over-produced audition record. I know that young audiences scorn what used to be called "professionalism," equating it with "phony," but no matter how much definitions change, there remains the fact that a performer, even if unskilled and unpolished, should be able to communicate something on some level.

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Performance: English vocal rock
Recording: Very good

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JAMES BROWN: Captured in top form at the Apollo

JAMES BROWN: Revolution of the Mind. James Brown (vocals); instrumental accompaniment. It's a New Day So Let a Man Come In and Do the Popcorn; Bewildered; Times and Before I Go—show considerably more than that. But as a performer he is almost nonexistent. He's been given a lot of glossy back-up production (too much, actually), but when he is on he makes it all disintegrate into what sounds like an expensively over-produced audition record. I know that young audiences scorn what used to be called "professionalism," equating it with "phony," but no matter how much definitions change, there remains the fact that a performer, even if unskilled and unpolished, should be able to communicate something on some level.

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Performance: English vocal rock
Recording: Very good

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P.R.
him perform "live" (or, for that matter, on television), is one. Attractive and energetic as his recordings are, they represent only a mild approximation of the furious rhythms and extraordinary visual dynamics of a Brown concert appearance.

If you must hear Brown on recordings alone, however, this is about as good a way as any. His Apollo set falls, quite simply, flat. Trouble is, you see, we've heard all these songs aren't attractive enough to serve as musical skills the group possesses—and they play and sing well enough—are thoroughly covered up by the animal doesn't come along very often, I happen to find no other place to put Creach except the peculiar masquerade. Don H.

VIKKI CARR: Superstar. Vikki Carr (vocals); Vangie Carmichael, Carol Carmichael, Myrna Matthews, Lisa Roberts (backing vocals); orchestra, Ernie Freeman arr. Superstar: The Night They Drove Old Dixie Down; Spanish Harlem: Loving Him Was Easier; So Far Away, Crazy Love; How Can You Mend a Broken Heart; and four others. COLUMBIA SD 33 377 $4.98.

Performance: Stones masquerade
Recording: Very good
Cactus seems to be suffering from the illusion that it is the Rolling Stones. Even allowing for the excellence of their choice of a model, that to be considered a very understandable illusion. Whatever musical skills the group possesses—and they play and sing well enough—are thoroughly covered up by the peculiar masquerade. Don H.

PAPA JOHN CREACH. Papa John Creach (vocals and influence); Grace Slick (vocals); Carlos Santana (guitar); Jack Bonus (sax); Mike Lipskin (piano); Jack Casady (bass); Jorma Kaukonen (guitar); Paul Kantner (rhythm guitar); Jerry Garcia (guitar). The Janitor Drives a Cadillac; St. Louis Blues; Pluck a Little Foul; Over the Rainbow; Human Spring; Danny Boy; Soul Fever; String Jet Rock; Everyone I Hear Her Name; Papa John's Down Home Blues. GRUNT FTR 1003 $5.98. @ PFT 1003 $6.98. @ PKFT 1003 $6.98. @ QFT 1003 $7.98.

Performance: Really fine
Recording: Good
There are three great jazz violinists: Joe Venuti, Stephane Grappelli (who played with Django Reinhardt), and Stuff Smith. Since the animal doesn't come along very often, I happen to find no other place to put Creach except the peculiar masquerade. Don H.

PAPA JOHN CREACH: Laughing Sandwich. Philip Cody (vocals); various accompanists. Down to Earth: Come Home, Hannah; Dusty Roads; Child Again; Companions in Remembering; Good News; Queen of the Night; and four others. KIMSHINE KES 115 $4.98.

Performance: Trendy
Recording: Very good
Musically, the second wave of troubadours is a fat and complacent bunch. This is fairly typical of albums by relatively unknown solo singer/songwriters I've heard lately, with lyrics saying things like, "We'll be painting panoramas dripping sunshine," "Good news, good news, Bliss is a-comin' soon," "Blissful peace lays on the world," and "Seagulls dip and dive, and it's great to be alive." Well, I suppose the long run of bad news is tiring, but this Pollyanna Revival has as little to do with reality as what Eddie Fisher said would happen to him when they begin the Beguine. How much of that doggerel in the window to take? Aside from that, the album would be a bust anyway, for Cody has no style. He has a nasal sort of voice that sounds like many other voices. His melodies are predictable in their neo-Taylor pussyfooting. The backing is good, particularly that involving Ron Franklin at piano. But mostly the voice and the songs aren't attractive enough to serve as escape vehicles, and they aren't geared for anything else. N.C.

THE CONCERT FOR BANGLA DESH (see Best of the Month, page 60)
COUNTRY. Country (vocals and instrumental). Beverly Glen: Love Quite Like Her Kind; Give Me Best to Everyone; Traveling Salesman: Jamie; Going Away; Fine and Easy; Killer; and four others. CLEAN CN 600 $4.98. @ M 6800 $6.98. @ M 5600 $6.98.

Performance: Smooth
Recording: Very good
If you're suspicious of groups from nowhere that suddenly flower on AM radio, as I tend to be, you may underrate this group. Country is the perpetrator of Aragon Ballroom, but that's one of the worst tunes on the album. Country is a little bland, as Ballroom indicates, but it is a relaxed, tuneful, well-balanced band for all that.

Their sound is nonchalant but precise. The group likes to lead into a song with one or two voices and only one instrument—the bass on Love Quite Like Her Kind, an impresssive song—and then bring in other voices and instruments as the pot starts to boil, so to speak. The result is an apparent artlessness that is kind to frayed nerves. Ian Espino plays an extremely spartan electric guitar that owes much to B.B. King, to be sure—but don't they all? The vocals by Michael and Steve Fondiler and Tom Snow, and the songs, mostly by Michael and Tom, are well matched to one another in their dry, lazier styles. The band plays honest music and writes an honest song. Ingenious is the word for it. N.C.

RECORDING OF SPECIAL MERIT
PAPA JOHN CREACH. Papa John Creach (vocals and influence); Grace Slick (vocals); Carlos Santana (guitar); Jack Bonus (sax); Mike Lipskin (piano); Jack Casady (bass); Jorma Kaukonen (guitar); Paul Kantner (rhythm guitar); Jerry Garcia (guitar). The Janitor Drives a Cadillac; St. Louis Blues; Pluck a Little Foul; Over the Rainbow; Human Spring; Danny Boy; Soul Fever; String Jet Rock; Everyone I Hear Her Name; Papa John's Down Home Blues. GRUNT FTR 1003 $5.98. @ PFT 1003 $6.98. @ PKFT 1003 $6.98. @ QFT 1003 $7.98.

Performance: Really fine
Recording: Good
There are three great jazz violinists: Joe Venuti, Stephane Grappelli (who played with Django Reinhardt), and Stuff Smith. Since the animal doesn't come along very often, I happen to find no other place to put Creach except the very best. He really is damned fine.

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to hear him with bass, two rhythm guitars, and a solo guitarist able to cut him (but not too deeply). Judging by his photos, he's an old man, and I don't know who or what has been keeping him hunk for so long, but I'm sure glad he managed to take that St. Louis woman's apron strings and put them on his fiddle. J.V.

LESLEY DUNCAN: Sing Children Sing. Les- ily Duncan (vocals, guitars); various musicians. Love Song; Mr. Rubin; Sing Children Sing; Help Me Jesus; Rainbow Games; Chain of Love; Crying in the Sun; Emma; Lullaby; If You Won't be Mine. COLUMBIA 30663 $4.98. © COLUMBIA 30663 $6.98.

Performance: Frustrating
Recording: Excellent

Leslie Duncan is the girl who wrote Love Song—the one with the bridge starting, "Love is the opening door; love is what we came here for," etc. I predict good things for her as a vocalist, but her songwriting seems disturbingly trendy and exploitative. Her melodies are pleasant rewrites of folk airs, which is all right, but her lyrics seem almost ruthless about extracting cash from the King-Taylor-Dylan school. There is the full-length token Jesus song, the familiar road (or how-the-tribe-is-all-scattered) song, and the obligatory political statement—and, right in style, it is a reactionary call for no politics at all, or a claim that love is politics, or something. Called Mr. Rubin, this particular song is especially difficult to take seriously, for how can you take seriously anyone who takes Jerry Rubin seriously? It's one thing for Bill Graham, in the turmoil of the moment, to lose his cool in Rubin's presence, but it's quite another for a songwriter to sit down, with plenty of time, and come up with nothing better than responses to some of Rubin's most ridiculous lines.

Yet, as a vocalist, Miss Duncan is her own person. She has a husky, pleasing voice in the contralto range, very stylish and quite unique. It is the antithesis of her songs. That and the backing—which includes Elton John at piano, and is on the folkish side of folk-rock—make the album worth having despite its disturbing elements. But those elements wouldn't be disturbing if it were not natural to worry most about the good ones.

THE FIFTH DIMENSION: The Fifth Dimen- sion (Live!!) The Fifth Dimension (vocals and instrumental); orchestra. Ode to Billie Joe; Jimmy Webb Medley; Laura Nyro Medley; and eleven others. BELL 9000 two discs $11.98. © BELL 9000 (39%) $9.95. © BELL 89000 $9.95. © BELL 59000 $9.95.

Performance: Too long
Recording: Good "live":

This two-record set wears out its welcome before you get to the second record. Getting more commercial by the minute, the Fifth Dimension is still able to put across a rousing Hair medley, and some of their Jimmy Webb material is very well done indeed. But our two full sides show them not always at their best. There is a sameness of approach and performance, plus a forced animation that becomes eventually mechanical. They are still a very good group, but one that seems to be well on its way into a rut.

TED HEATH ORCHESTRA: Those Were the Days. Ted Heath Orchestra. The Stripper; Li'l Darlin'; Tuxedo Junction; Girl Talk;
Those Were the Days; and six other. LONDON SP 44164 $5.98.

Performance: "Demonstration"
Recording: Superb
So you've just spent half your life's savings on the most elaborate audio rig seen since Dr. Strangelove's laboratory. The only problem is that you're not too crazy about music. It seems most albums have only a few minutes of music per side—a sure way to show off your equipment. And, somehow, people were once willing to sit and listen to recorded automobile races or approaching trains respond with a snarl if asked to do so these days. What to do? Easy. Rush out and get this album, another addition to the technically awesome London Phase 4 Series. What is heard on these recordings isn't really music (the engineering is so fussed over that it inevitably distorts any musical performance), but consecutive luh sound patterns. And, as that, they are very impressive. Ted Heath's orchestra plays the title song as if to accompany a stripper, and plays The Stripper as if she were back for a blue-light encore. But at least it's better than having to listen to the Super Chief pull into Union Station. P.R.

JOEL SCOTT HILL/JOHN BARBATA/CHRIS ETHRIDGE: L. A. Getaway. Joe Hill (guitar); John Barbata (drums); Chris Ethridge (bass); various other musicians. Bring it to Jerome: It's Your Love; Long Ago; Craney Crow; The Promised Land; and five others. ATCO SD 33-357 $4.98. © M 8357 $6.98, © M 5357 $6.98.

Performance: Slick, professional rock
Recording: Good to very good

Guitarist Joel Scott Hill, bassist Chris Ethridge, and drummer Johnny Barbata are at the core of this music. But the real show is put on by a colorful group of some of rock's best sidemen—from Leon Russell to Booker T. Jones. The quality varies accordingly. Booker T.'s fine Ole Man Trouble is better than its performance, but a few pieces—Dr. John's Craney Crow, in particular—have the vitality of first-class rock music. I wonder, however, if recordings like this—competent, well-crafted, but echoing with the sounds of electronics rather than the airy openness of "live" music—don't run the same risks that jazz musicians encountered when they too started to confine themselves to the environs of the studios.

DON H.

SCOTT JOPLIN: Scott Joplin—1916. Piano rolls played by Scott Joplin, W. Arlington, and Wm. Axtmann. Maple Leaf Rag; Something Doing; Weeping Willow Rag; Maple Leaf Rag (another version); Ole Miss Rag; Magnetic Rag; Ragtime Oracle; Quality Rag; and six others. BIOGRAPH & BL 1006 Q $5.98.

Performance: Historical rags
Recording: Good

One hesitates to question the value of these performances of rags by Joplin and others. The "Connzirized" piano-roll process apparently was one of the most accurate replayers of the early century, and these rolls were recorded on a 1910 Steinway piano—authenticity running rampant.

Of the fourteen pieces included, six are performed by Joplin, six by W. Arlington, and two by Wm. Axtmann; the latter two names apparently represent the same person, "Ar-lington" being a pseudonym commonly used by Mr. Axtmann.

Historical value aside, the performances won't exactly start anyone shimmying. Joplin's tempos are slow and his touch ponderous; if he viewed ragtime as a music that should be played with a lift (or with swing), then the reality of his playing simply didn't survive translation to the piano rolls. The Arlington-Axtmann sides are cluttered with extra notes, and I suspect that the principal value of the entire project will be for collectors only.

Don H.

THE KINKS: Muswell Hillbillies (see Best of the Month, page 67)

JON LORD: Gemini Suite. Jon Lord (piano and organ); Roger Glover (bass guitar); Albert Lee (guitar); Tony Ashton (vocals); Yvonne Elliman (vocals); Ian Paice (drums);

...being a pseudonym commonly used by Mr. Axtmann.

Recording: Good to very good
Performance: Historical rags

SHAWN PHILLIPS: The trouble was worth it

The London Symphony Orchestra, Malcolm Arnold cond. CAPITOL SMAS 870 $5.98.

Performance: Third-stream rock
Recording: Very good
Okay, here are the facts. This is a work for "group and orchestra"; the group consists of three members of the English rock group Deep Purple augmented by three other musicians (including singer Yvonne Elliman), and the "orchestra" is the London Symphony, with Malcolm Arnold conducting. The form of the work is simple enough—six small quasi-concertos for guitar, piano, drums, vocalist, bass guitar, and organ. I could very quickly offer my opinion of all this in one two-syllable word, but if I did it would be instantly excised by the editor, and then where would I be? So I'll say that composer Jon Lord (of Deep Purple) has an advanced composition student's knowledge of orchestration, very little feeling for musical invention, and fair skill as a keyboard player. The music itself is pop trivia, half horse and half ox, and the rear halves, at that. Don H.

RECORDING OF SPECIAL MERIT

MOUNTAIN: Flowers of Evil. Leslie West (guitar and vocal); Felix Pappalardi (bass); Corky Laing (drums); Steve Knight (keyboards; Flowers of Evil; King's Choral; One Last Cold Kiss; Roll Over Beethoven; Mississippi Queen; and six others. WINDEALL 5501 $4.98, © 8119 5501 $6.98, © 5119 5501 $6.98.

Performance: Solid hard-rock
Recording: Good
Soon after Cream broke up, their producer, Felix Pappalardi, decided to form a group. So came into being Mountain, in which Pappalardi subordinated himself to guitarist-vocalist Leslie West. Pappalardi lets off excess steam by producing so-so albums on the side; but with Mountain, for whom he produces, plays, and writes, he is really very fine, and the group shows it. For what they are, which is a "hard-rock" band, they do very well, and they have done so through four albums. It amazes that Pappalardi has, by luck or design, made his mistakes everywhere except with Mountain, which he obviously loves.

Felix (I'm tired of writing the last name) is an excellent bass player; West is an accept-able vocalist, and, provided you don't hear too much of him at one time, a fine guitarist. Drummer Corky Laing and keyboardist Steve Knight provide sturdy support for the two stars. The duo figures between West and Felix to fluid and moving (as in "motion"), and the construction of the tunes is interesting. Half of this album is studio work and the other half a "live" recording, probably at the Fillmore East. Guitar Solo is virtuoso West; Roll Over Beethoven is a knockout: King's Choral; One Last Cold Kiss (both partly by F. P.) and two of the finest rock-con-babytubabes since Keith Richard's Play with Fire and Ladies Jane. Sound is very good, too. A winner. J.V.
Barry de Souza—in *What’s Happenin’ Jim!*, he seems to put the drum on top of a pillar of sound created by the other instruments. And David Katz is light on the “orchestra” in his arrangements, letting Philip’s guitar, excellently played, have the spotlight. Whatever else is said of this gang, it must be admitted that they know how to collaborate.

LINDA RONSTADT (see Best of the Month, page 68)

ROSALIE SORRELS: *Somewhere Between.* Rosalie Sorrels (vocals, guitar). Magic Penny; *It Could Be a Wonderful World; My Father’s Mansion; Mighty River; Ain’t You Got a Right?; Pale Green Disease; Pig Hollow; Mansion; Mighty River; Ain’t You Got a

Performance: Well-meaning
Recording: Good

Rosalie Sorrels is a good-hearted Boise girl with a strong social conscience, a sweet, true voice, and a style that stems from the Joan Baez tradition of Message Music. To get her record, you have to write to the Unitarian Universalist Fellowship in Boise, and it comes with a note from the Minister of the First Unitarian Church in Salt Lake City warning that if you want to appreciate Rosalie you have to “enter into the encounter with a willingness to be open, to ‘soak up’ the message whether light-hearted or starkly confrontive.” I tried my best, listening as openly as I could as Miss Sorrels socked her various messages to me, which were mainly about brotherhood (of which I am in favor), against war (which I also am against), and “starkly confrontive” when it comes to bulldozing beautiful landscapes and confining the poor to the “backside of town.” Miss Sorrels favors the compositions of a songwriter named Malvina Reynolds, whose melodies compare in originality with the safely progressive sentiments in her lyrics. In addition, she offers pieces by Pete Seeger, Hy Zaret, Lou Singer, Scott (tenor sax); David Spinoza (guitar); Doerge (piano); Russ Kunkel (drums); Leland Sklar (bass); Gene Cipriano and Tom Scott (tenor sax); David Spinoza (guitar); others. *Just an Old Fashioned Love Song: We’ve Only Just Begun; My Love and I; Let Me Be the One; Waking Up Alone; and six others. A & M SP 4327 $5.98.

Performance: Smooth
Recording: Clean

Much of current pop is deceptive in that it claims an artistic integrity it really doesn’t possess. One result is that everybody now calls himself “heavy,” which only means that somebody will have to make up a new word. Another result is that the sentimental, romantic, sometimes bathetic music of Fifties teen-rock is still with us, but it’s all dressed up in sophisticated arrangements, million-dollar consoles, producers who are also hip to demographics and market analysis, and product packagers who keep photographers, draftsmen, commercial artists, and printers very busy.

This romantic pop is done superbly well by Carole King. The same photographers who did Miss King’s first album did this one and many of her backup musicians are used, including Russ Kunkel’s “dump-bah-dump-pah-dump” drums (obligatory before going into the chorus). Pianist Craig Doerge plays the role here of the instrumental Miss King. Williams plays the role of the vocal Miss King, and producer Michael Jackson does his Lou Adler impersonation.

Williams wrote the title tune—which is a current rowdy hit for Three Dog Night, who are again making the 45-rpm single an art form—and the lyrics for the Carpenters’ “We’ve Only Just Begun.” Both of them are good tunes of the genre, but the rest of Williams’ numbers on this album are mauldin and inconclusive. Most contemporary “love” songs basically say: “You gave me strength, shielded me from the rude blows of the world, taught me to love, and made me a real, whole, true person. Thanks a lot, and I’m leaving on the next bus.” Even though new romantics keep on mentioning that love is the strongest bond (generally)—which 1950’s teen-pop couldn’t—it can be as snippy and self-pitying as the old teen-pop single I Wish That We Were Married, with its sniveling talk-chorus. This album combines the worst of both styles. If you like mush (and music has its place) go find the old single by the Duells called Could This Be Magic, and submit to its hammery charm. At least the Duells had acting talent.

J.V. (Continued on next page)
JAZZ

RECORDING OF SPECIAL MERIT

ORNETTE COLEMAN: Twins. Ornette Coleman (alto saxophone); various accompaniments. First Take; Little Symphony; Monk and the Nun; Check Up; Joy of a Toy. Atlantic SD 1588 $5.98. ® M 81588 $6.98. ® M 51588 $6.98.

Performance: Early Sixties avant garde Recording: Very good to good

Well, it’s been a long time coming, but this is a record that was worth waiting for. The tracks date to an aesthetically explosive two-year period in jazz history—from mid-1959 to early 1961—when alto saxophonist Ornette Coleman was having a powerful effect upon the dynamically changing face of jazz.

The premiere track here is called First Take, and is an apparently forgotten first recording through of the music that eventually became Free Jazz, one of the most influential recordings of the Sixties. The same double quartet is heard—Coleman, Don Cherry, Scott LaFaro, and Billy Higgins in one group; Eric Dolphy, Freddie Hubbard, Charlie Haden, and Ed Blackwell in the other. Incredibly, the performances are very nearly as good as those on Free Jazz, and Freddie Hubbard, for one, probably sounds even better on First Take than on the later version.

The other pieces are typical Coleman performances from those early, exciting days: overflowing with melody and humor, electric with the intensity of invention and discovery, and alive in a fashion that too often was not the case with Coleman’s later work.

In retrospect, the controversies surrounding Coleman in those years that now seem so innocent and so distant are hard to recall. How could these superbly melodic, blues-based improvisations have offended anyone? As things turned out, both Coleman’s supporters and his detractors were wrong. He was neither Messiah nor fraud, but a simple man who, in his own way, helped clear away the accumulated aesthetic clutter of the previous decade—no small accomplishment. His effectiveness in doing this is amply documented in this invaluable collection of previously unreleased Coleman gems. Don H.

BOBBY HACKETT: Live at the Roosevelt Grill. Bobby Hackett (cornet); Vic Dickenson (trombone); Dave McKenna (piano); Jack Lesberg (bass); Cliff Leeman (drums). Swing That Music; Meditation; Sugar; Strutin’ with Some Barbeque; Undecided; Margie; and five others. Chiaroscuro CR 105 $5.98 (available by mail from Chiaroscuro, 15 Charles St., N.Y., N.Y. 10014).

Performance: Good

Recording: Adequate

Bobby Hackett’s cornet has been valuable for a long time, and is still very good. One of many influenced by Beiderbecke, Hackett has the warm intimate tone of Bix, but is less distant on ballads, and maybe not quite as aggressive on jump tunes. Bix comes off as an obvious genius who probably couldn’t ever get close to anyone personally, while Hackett comes off as a terrific horn player and a guy you could pal around with.

On ballads, Hackett’s horn suggests that teetering moment just before lovers embrace and give in to nature. It makes just that impression here on Meditation, and he shows beautiful control. He is always good, and the other ten selections on the disc all have some fine moments.

The trouble with the disc is—aside from the recording itself, which is sometimes so sloppy that tape squeakes are repeatedly heard—that most of the men of Hackett’s caliber who could have supported him are dead, retired, unable to play, or bored. Trombonist Vic Dickenson, who gets featured billing, is okay on slow numbers with his mudder.

ORNETTE COLEMAN Electric with invention and discovery

ing phrasing but clowns it up on the fast numbers with silly-paper-hat growls and glissandos. Maybe he’s bored, maybe there are too many fit-up musician buddies in the audience. But clowning seems to be a particular disease of aging trombone players. Jack Teagarden, in contrast, would have played well even if he had been bored.

The real problem with this kind of music— a derivative of the great white New Orleans and Chicago jazz that, starting in the early Twenties, was exciting and powerful for almost thirty years—is that most of its greatest practitioners are old and out of shape. Most of them spent whatever money they made and now must take whatever “live” gigs they can get to pay rent, and nobody makes good music when there’s that kind of pressure on them. No effort has been made to record them, such as has been made with blues singers, because there isn’t much of a market for their music—it won’t be “hip” until about five years from now. Some of the cornier aspects of early jazz are being written into rock arrangements, but I fear it won’t be until almost all the capable jazzmen still living have given up either the ghost or the cause that the second “New Orleans Revival” will take place. When it does, Hackett will be one of the few men around from whom the kids can learn.

For best evidence of happier days, make every effort to get an out-of-print copy of Blue Mitchell’s album, released in the late Fifties, called “Coast Concert”—great Hackett. J.V.

GENE HARRIS AND THE THREE SOUNDS.

Gene Harris (piano); Luther Hughes (electric bass); Carl Burnett (drums). All My Eggs (guitar); Fred Robinson (guitar); Bobby Porter (conga); Paul Humphrey (percussion); Monk Higgins (organ). I’m Leaving: Your Love Is Just Too Much; Did You Think; Put on Train; Eleanor Rigby, Hey Girl; and two other. Blue Note 81588 $5.98. ® M 9169 $6.98. ® C 1169 $6.98.

Performance: Atrocious

Recording: Good

Anita O’Day once made an album with a swinging jazz group called the Three Sounds. I can’t find that record now, but if this is the same group, some organic disaster has happened to them. This is atrocious, hackneyed noise. It is neither jazz nor rock, just a lot of dead and desultory time-wasting. There are two pieces of talent here, especially Ray Bryant’s and Gene Harris’ piano threatens to smash the formula charts he’s caged in and break loose on its own. But somebody is sitting on his fingers, and the seven tunes by organist Monk Higgins do not give him much chance to do anything but sound trashy anyway. What this group does to Eleanor Rigby should be against the law. If you really want to hear how a true genius approaches this classic song and suits it for jazz styling, listen to Oscar Peterson and Claus Ogerman elevate it to the status of one of their new Moods and Emotions’ album. In the hands of the Three Sounds (which sound more like twenty sounds, all dissonant), music is a menace to society. At one point in the proceedings, they knock themselves out to no avail for three and a half minutes, stopping the clatter occasionally to ask, in unison, “What’s the question?” I never found out. Anyway, this is not the answer.

BLUE MITCHELL: Vital Blue. Blue Mitchell (trumpet), Walter Bishop (piano), Stan Gilbert (bass), Doug Sides (drums), Joe Henderson (flute, tenor sax), Ernie Watts (tenor sax), Susaye Greene (vocal effects). Booty Shakin’; Vital Blue; Unseen Sounds; Herman’s Helmet; I Love You; For All We Know. Mainstream MRL 343 $4.98.

Performance: Fifties hard bop

Recording: Very good

In the mainstream bop style of the mid-Fifties, Blue Mitchell was a trumpeter to be reckoned with. He hasn’t changed much in the intervening years: his style continues to be a pleasant mix of early Miles Davis and late Clifford Brown. Accompanied by a good rhythm section—as he is here—he can still play jazz that is exciting enough to raise the small hairs on the back of your neck.

The best stuff here is the straight-ahead blowing material—songs like Booty Shakin’, Vital Blue, and Herman’s Helmet—in which Mitchell and tenor saxophonist Joe Henderson (as of this writing a recent addition to Blood, Sweat & Tears) can get loose. More studied material like Unseen Sounds and For All We Know has the ring of self-indulgence, interesting, no doubt, in the studio, but hardly indicative of Mitchell’s greatest gifts. Don H.

STEREO REVIEW
THE CAJUNS—Songs, Waltzes, and Two-Steps. The Hackberry Ramblers, the Alley Boys of Abbeville, the Thibodeaux Boys. Joe's Acadiens, and others (vocals and instruments). Cajun Crawl; Jolie Petite Blonde; Lafayette; and eleven others. Folkways RB1 $3.98

Performance: Authentic
Recording: Good

Cajuns, in case you didn't know, are French Acadians who found their way from Nova Scotia to the bayou of Louisiana and were immortalized in Henry Wadsworth Longfellow's Evangeline. Their descendents still live in the Louisiana outback, making a living by crawfish-catching and shrimp-trawling, speaking pidgin French, and dancing faux dodos and playing their fiddles on Saturday night. Since I grew up in Louisiana, Cajun music does not sound strange to me, but it's something I've been trying to get away from all my life, in the same way that Texas kids who came to New York have been trying to forget they heard of Bob Wills and the Texas Playboys. I never cared much for Cajun fiddle music then (I was too busy listening to Dave Brubeck), and my heart hasn't grown fonder with absence. However, Folkways has come up with an extraordinary collection of representative Cajun music on this disc; it is interesting from a historical point of view, and a healthy addition to the library of any music collector with eclectic tastes.

From Hackberry, a small town with streets paved with oyster shells, comes an original dance called the Cajun Crawl. From Lafayette, a town in the heart of oil country famous for its Creole cuisine like jambalaya and file gumbo, comes a toenail sharpener called The Waltz That Carried Me To My Grave. From a town in the heart of oil country known for its Creole cuisine like jambalaya and file gumbo, comes a toenail sharpener called The Waltz That Carried Me To My Grave.

There are variations on two-steps, and file gumbo, comes a toenail sharpener called The Waltz That Carried Me To My Grave. In the Folkways collection, you but to my way of thinking, he's a bayou boy Club. In the Folkways collection, you...
quickly wearing. Lacking the complex tonal and rhythmic variations of classical Indian music, repetition soon becomes the dominant and quite distracting factor. I would have to say, then, that this disc will have appeal only to the most confirmed collectors of musical esthetics.

Don H.


Performance: Authentic
Recording: Excellent on-location

Nonesuch Records has turned a couple of flat phonograph records into a magic-carpet trip around the world by judiciously and conscientiously editing a program of excerpts from its Explorer Series. Over the years the company has quietly built a library of some fifty exceptional folk-music albums. They are exceptional because almost everything has been recorded on location— for example, in tiny villages in obscure Bulgarian valleys, on the shores of Lake Titicaca high in the Andes—and the record producers have managed to maintain the highest technical standards, adhere scrupulously to authenticity, and even to capture most of their material in stereo.

The world tour of folk music offered in a new sampler of the Explorer Series—at the astonishing bargain price of $1.99 for two discs—begins in Bali as two hundred Balinese men gather at dusk in a temple courtyard to begin the "monkey chant" which commemorates a battle described in the Sanskrit epic Ramayana, with Maddah cries that are the auere to a dance of exorcism. After that, we hear the music of the gamelan, are whisked to Java for a program of court music, and end our stay in the Far East with four episodes of the music of Japan, including the shakuhachi, koto music, and one of those self-appointed monitors of interfaith tolerance with no sense of humor whatsoever, condemned the TV series in the pages of the New York Times last year as pernicious because the epithets it tossed about weren't strong enough. Producer Norman Lear replied that no comedy had to be technical standards, adhering scrupulously to authenticity, and even to capture most of their material in stereo.

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diversion—though small arms indeed for any battle against bigotry.

P.K.

BERNIE TAUPIN. Bernie Taupin (recitations); various musicians. Child—Birth: The Greatest Discovery; Flatters; Brothers Together; Rowston Manor. End of a Day; and eleven others. ELEKTRA 75020 $5.98.

Performance: Forty winks
Recording: Good

Bernie Taupin is Elton John's lyricist (or Elton John is Taupin's melodist) and has done some fine work. But he seems to have forgotten that the missing generation of young poets between 1960-1970 is missing because most of them turned to writing rock lyrics. Of course, the campus-sheltered poets continued to write and teach, but those who had real talent and could deal with the world outside the groves of academe did so.) Whether Taupin is a poet, I don't know. He may well be, but if so, this presentation of his work doesn't do him any good. Despite sitars, pianos, and strings which play "And art thou gone, yes, thou art gone, alas," stuff, Taupin's recitation is monotonous and boring. Edna St. Vincent Millay maintained a dramatic quaver and a Bernhardt breathlessness in her recorded recitations, which at least kept you awake for a while. In earlier and better days, Richard Burton did a hell of a job reading John Donne's toughminded love poems, and a drunken John Barrymore recorded hammy but entertaining declamations of Shakespeare. I'm not saying you have to be Vachel Lindsay and stomp your feet, but Taupin's role of sensitive zombie reminds me of poetry seminars in my college days, which I'd rather not remember.

J.V.

VARSTY CHEER. Marybeth Lahr, Hugh Alexander, Anna Horsford, Tom Cipolla, Robert Mack, Walter Gustafson, Robert Good, and Shirley Dewald Gutmann (performers); Myles Jackson (producer, director, writer). FOLKWAYS FTC 31310 $5.95.

Performance: Confused
Recording: Fair

Sophomoric is the word for Varsity Cheer, subtitled "A History of the Western World at Half-Time." Myles Jackson, who wrote, directed, produced, recorded, and edited this little package, has combined the sounds of documented interviews and incidents on street corners, at football stadiums, in factories, and on Indian reservations with the voices of actors portraying shopkeepers, soldiers, and solid citizens in an inerminable montage that only goes to show how a stimulating experience like NET's The Great American Dream Machine might have turned out had it fallen into less talented and more self-indulgent hands. Mr. Jackson's aims, I am certain, are of the noblest—to show up our frowzy little world, with its bigots, backward-looking reactionaries, and other objectionable types, by turning the words of the country's Lilliputians against themselves in a super-relevant sound-mural reflecting our current follies. What he has achieved instead—through poor pacing, amateurish editing, and the clumsy juxtaposition of ill-used actors' voices with his documentary snippets—is oral history without the filtering intelligence of, say, a Studs Terkel to make it mean something. Mr. Jackson may be on the side of the angels, but I am sure his presence there is only an embarrassment to them.

P.K.
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.

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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 Sunnyside Blvd., Plainview, Long Island, New York 11803.

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CIRCLE NO. 41 ON READER SERVICE CARD
Jubilo; Brandenburg Concerto No. 2, in F
for it. The program opens with the "Little
cassette collectors are sure to be the happier
material from various Columbia albums, and
"greatest hits" in this joyous assemblage of
popular demand for a second volume of his
cond. COLUMBIA © 16 11 0182 $6.98.

Delphila Orchestra, Eugene Ormandy cond.;
(guitar); Mormon Tabernacle Choir; Phila-
delphia: E. Power Biggs making the organ do
other acts in this headline musical vaude-

forces are at their shiny best in the fugues
tween comes a procession of delight by some
"Great Fugue" in the same key, and in be-
mediocre conductor of Johann Sebastian Bach.

BACH: Bach's Greatest Hits, Volume Two.
Fugue in G Minor ("The Little"); Sheep
May Safely Graze; Two-Part Invention in F
Major; Two-Part Invention in B-flat Major;
Two-Part Invention in D Minor; Arioso;
Fourth Lute Suite: Gavotte; Anna Magda-
lena Notebook: Bist du bei mir: In dulci
Jubilo: Brandenburg Concerto No. 2, in F
Major (BWV 1047); The Well-Tempered
Clavier, Book One: Prelude and Fugue in C
Major; Prelude and Fugue in C Minor;
Fugue in G Minor ("The Great"); E. Power
Biggs (organ); Walter Carlos (Moog synthe-
sizer); Glenn Gould (piano); John Williams
(guitar); Mormon Tabernacle Choir; Phila-
delphia Orchestra, Eugene Ormandy cond.;
Columbia Symphony Orchestra, Chorus and
Marlboro Festival Orchestra, Pablo Casals
cond. COLUMBIA © 16 11 0182 $6.98.

Performance: All aces
Recording: Very good
Playing Time: 49' 25"

Johann Sebastian has been brought back by
popular demand for a second volume of his
"greatest hits" in this joyous assemblage of
material from various Columbia albums, and
cassette collectors are sure to be the happier
for it. The program opens with the "Little
Fugue" in G Minor and concludes with the
"Great Fugue" in the same key, and in be-
tween comes a procession of delight by some
of Columbia's brightest stars. Ormandy's
forces are at their shiny best in the fugues
and a splendid Arioso; and just consider the
other acts in this headline musical vaude-

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

Explanation of symbols:
= reel-to-reel stereo tape
= eight-track stereo cartridge
= stereo cassette
= quadrasound disc
= reel-to-reel quadrasound tape
= eight-track quadrasound tape
= quadrasound cassette

Monophonic recordings are indicated by the symbol °

The recorded sound strikes me as being of
aircheck quality, rather than what one would
expect from a well-managed recording ses-
sion: hiss is considerable, and there is notice-
able overload at those climaxes involving full
choral-orchestral forces. Since there is no
identification of soloists on the Orion cas-
sette or its container, and no program notes
(one is asked to send 25¢ in a self-addressed
envelope for these!), I am reduced to educat-
ed guesswork about the origin of the record-
ed performance. The name of Lorenzo Ber-
nardi as conductor appears on another Orion
recording, one offering the Bruckner Te
Deum and three Handel Psalm settings
(6913, cassette CAS 69131), as well as a disc
from another California-based label, Everest,
then Mendelssohn's The First Walpurgis Night. On these, there is likewise
no identification of soloists, and the chorus
and orchestra are designated as those of the
Leipzig Bach Festival. My diligent search of
various directories of European performers
and performing organizations has turned up a
Leipzig International Bach Festival held
every fourth May (the most recent in 1970),
but no conductor by the name of Lorenzo
Bernardi. Who knows? Adding to the mys-
tery is the fact that this Orion cassette had an
unexpected "bonus": the "Et resurrexit"
from Beethoven's Mass in C!

D.H.

MAHLER: Das Lied von der Erde. James
King (tenor); Dietrich Fischer-Dieskau (bari-
tone); Vienna Philharmonic Orchestra; Leon-
ard Bernstein cond. LONDON © 5 OS 26005
$6.95.

Performance: Excellent
Recording: Excellent
Playing Time: 66' 7"

This London import cassette is Dolbyized,
with the obvious result that tape hiss is elimi-
nated. The transparency of Mahler's orchestra-
tion is generally conveyed very faithfully
(there are a few moments of constriction in
the heavier brass passages, especially at the
start), as are the solo voices. Of the perform-
ers, Fischer-Dieskau (the part can be sung
by either alto or baritone) delivers the most
sensitive account; the Abschied is truly af-
festing. James King does well in the softer
parts. Bernstein does not probe
the heavier brass passages, especially at the
start), as are the solo voices. Of the perform-
ers, Fischer-Dieskau (the part can be sung
by either alto or baritone) delivers the most
sensitive account; the Abschied is truly af-
festing. James King does well in the softer
parts. Bernstein does not probe
the depths perhaps as much as some other
conductors, but his is altogether a fine inter-
pretation. No texts are supplied, but there
are fairly extensive annotations.

I.K.

(Continued on next page)
COLLECTIONS

RECORDING OF SPECIAL MERIT

JESUS LOVES YOU. Bach: Jesu, Joy of Man's Desiring; Sheep May Safely Graze. Handel: Messiah: For Unto Us a Child Is Born; All We Like Sheep Have Gone Astray; Hallelujah. Traditional: Fairest Lord Jesus; Were You There?; What a Friend We Have in Jesus; Amazing Grace; All Hail the Power of Jesus' Name. Vivaldi: Gloria. Et in terra pax. Leontyne Price (soprano); Florence Kopleff (contralto); Robert Shaw Chorale, Robert Shaw cond.: Choir of Men and Boys of St. Thomas Episcopal Church, New York City; Norman Luboff Choir; and New Symphony Orchestra of London. Leopold Stokowski cond. RCA © RK 1208 $6.95, © RBS 1208 $6.95.

Performance: Enthralling program
Recording: Excellent
Playing Time: 47' 44"

Some of the loveliest packages are being assembled as "variety packs" out of treasures in the archives of our record companies these days, and this cassette is a superb example. The title "Jesus Loves You," and the inspiring subtitle "Heavenly Hits of Hope, Joy and Peace," may work to drive off the wrong customers. It would be a shame, for anyone thrilled by great religious music would be thrilled by this collection. The program opens with a contemplative treatment of Bach's Jesu, Joy of Man's Desiring; that is followed by Messiah highlights with the Norman Luboff Choir and orchestra under Stokowski offering a version that brings to them a full-blooded, direct kind of passion that's hard to resist. Hymns, some assembled from performances by Leontyne Price with members of the St. Thomas Episcopal Choir, and others by the Robert Shaw Chorale, supply interludes of contrasting simplicity. When Miss Price sings What a Friend We Have in Jesus and Amazing Grace, she raises these commonplace pieces to the level of high art. A spiritual song by contralto Florence Kopleff offers a fervor of a cooler hue. The concert ended as it began—with Jesus, Joy of Man's Desiring—this time in a full symphonic treatment. It's exciting.

P.K.

ENTERTAINMENT

LYNN ANDERSON: You're My Man. Lynn Anderson (vocals); unidentified accompaniment. You're My Man; I Can Spot a Cheat; I'm Gonna Write a Song; Proud Mary; You're My Man; I Can Spot a Cheat; Keeping a Mystery; Only Jessica. Columbia © CT 30793 $6.98, © CA 30793 $6.98.

Performance: Real band
Recording: Real good
Playing Time: 28' 15"

If Lynn Anderson gets any less country than this, she can say goodbye to her role as entertainer of truck drivers in the lonely cabs of their Mack's, Whites, and "Jimmies." That's no small thing, since truck drivers are counted on heavily in the marketing of so-called country-music cassettes and cartridges. If the truckers go for this, they can be sold Percy Faith. Then where's a hitchhiker to turn?

Lynn's voice, of course, still sounds country, but—in its moping and usually misplaced earnestness—not the best country. The first side is one attempted follow-up to Rose Garden after another; side two is worse, a "cover" of various out-and-out pop songs that were reasonably popular during the last few years, despite the fact that some of them were as rotten as Knock Three Times. And everywhere strings, cascading strings and tinkly guitars. Lynn Anderson should pay a visit to a honky-tonk, either that or take a dip in Web Pierce's guitar-shaped pool to clear her head.

N.C.

LEOPOLD STOKOWSKI

Leads irresistible Messiah highlights

JUCY LUCY: Get a Whiff This. Juicy Lucy (vocals and instrumental). Mr. Skin; Midnight Sun; Midnight Rider; The Harvest; Mr. A. Jones; Sunday Morning; Big Lil; Jesuic; Future Days. ATCO © M 5367 $6.95.

Performance: Good
Recording: Good
Playing Time: 34' 36"

This group generates some pretty good vocals and some fine guitar work, but most of the songs are so dull the effort is wasted. Only Jesuic and Future Days give me any sort of lift; I really don't see any sense in going into the studio to record such tripe as Big Lil, Mr. Skin, and Midnight Rider. Good songs are difficult to come by, of course, but they're not so rare as bad rock vocals, so let us keep hoping the J.L. men get their sweaty hands on some decent material.

N.C.

HUGO MONTENEGRO: Mammy Blue. Hugo Montenegro and His Orchestra. All I Can Do Is Love; Uncle Albert; Admiral Halsey; Superstar; Peace Train; Mammy Blue; I Feel the Earth Move; and five others. RCA © PK 1861 $6.95, © RPS 1861 $6.95.

Performance: Colorful patchwork
Recording: Good
Playing Time: 34' 45"

Mr. Montenegro, long a supplier of orchestral tapes and records ideal for background music, makes a bid for the foreground this time with some lively and colorful arrangements that call on the services of several nameless soloists as well as the members of his chorus and orchestra. The pieces on side one are in the soul and blues spirit—even a gospel number in Peace Train. The idiom is caught and held on while the "big band" sound is obtrusive at times, the mood is convincingly sustained. Side two finds Mr. Montenegro back at the old stand, overdubbing a medley of tunes from Fiddler on the Roof and a succession of fillers. These pass the time, but never claim full attention. No price effects, a surefire in Yo Yo, lots of Latin atmosphere in Zingaro. None of it is unpleasant—just easier on the nerves with the volume down.

P.K.

STEELEYE SPAN: Please to See the King. Steeleye Span (vocals and instrumental). The Blacksmith: Cold, Hail, Windy Night; Bryan O'Byrne; The Hag With the Money; Prince Charlie Stuart; False Knight on the Road; Boys of Bedlam; and four others. Big Tree © M 52004 $6.95, © M 82004 $6.95.

Performance: Startling
Recording: Very good
Playing Time: 40' 33"

We've all heard folk-rock, but it is seldom exaggerated to this degree; this is extreme folk and extreme rock (if there can be such a thing) joined, sounding something like a fusion of Led Zeppelin and the Pentangle. Most of the songs have a certain irreverent and/or irrelevant charm, the vocal arrangements are particularly well worked out, the voices are pleasant and even sound trained—and the electric twanging that overrides it all often lends a sense of immediacy that does something to illuminate the instrumental arrangements are unimaginative—more the pity, because the vocal arrangements are quite imaginative. The instruments are so loud, relative to the voices, that this back is difficult to ignore, and wears the listener down eventually.

N.C.
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STEREO REVIEW

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PRODUCING A TEST TAPE

A number of readers have written to ask why Stereo Review has not produced a test tape comparable to its SR 12 Stereo Test Record. Production of such a tape is under consideration, and it's worthwhile discussing the problems attendant on the project. The SR 12 test record is useful in the laboratory as well as in the home, and everyone would prefer that the same be true of test tapes. In this field the Ampex "Reproducer Alignment Tapes" (used by Hirsch-Houck Labs for recorder evaluation) set the present industry standard. In order to maintain laboratory tolerances, however, Ampex finds that they cannot mass-produce the tapes with high-speed duplicators but must make each test tape individually, and this results in a rather formidable price: over $20 each.

There are various technical decisions to be made, such as: what kind of oxide should be used—"standard," "low-noise," or the new "low-noise/high-output" type? And what shall be used as "standard 0-VU operating level"? Ampex long ago selected a level that produced 1 per cent third-harmonic distortion when recorded on 3M Type 111 tape. The "Ampex Operating Level" reference has since been used throughout the industry and in the calibration of Dolby noise reduction units throughout the world. On the other hand, the 1965 NAB specifications call for a reference level that is 8 dB below the 3 per cent third-harmonic-distortion point at 400 Hz, and this turns out to be, using Type 111 "standard" tape, 1.8 dB less than the Ampex level. Selection of a different tape type would change this, but whatever tape is chosen it will have to have absolutely consistent magnetic-oxide characteristics, precisely controlled coating thickness, and the same relative degree of surface polish.

High-frequency response—for example, to 15,000 Hz at 7 1/2 ips—also presents a problem, for even assuming that every time you played the tape you used unwarped reels and scrupulously demagnetized and cleaned the heads beforehand, there would still be losses of perhaps 0.5 to 2 dB after fifty playings, and 3.5 dB or more after one hundred passes of the tape. In anticipation of this normal wear, therefore, Ampex records its reference tapes slightly (1.25 dB) "hot" at the high end, which probably accounts for the slightly rising treble response in recorder tests.

One of the chief functions of a test tape is to permit the user to adjust head "azimuth"—the perpendicularity of the head gap(s) to the edge of the tape. Only with this standardized at precisely 90 degrees will tapes made on one machine be playable on another without severe high-frequency losses. The NAB specified tolerances permit an azimuth error of only ±1 minute of arc—1/60th of a degree—for test tapes, but to achieve this the actual tape used must itself possess an inordinately straight edge, without any "waves" (which result in "weaves") due to improper slitting.

These are some, but hardly all, of the problems involved in producing a reliable test tape. We'll discuss the others next month.
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But don’t just take our word for it. Visit your E-V salesroom today. Listen. Compare. Then share with us the welcome discovery that “their” records can make the best case for “our” decoders!