Power Bandwidth: 15-50 KHz -0.9% dist.
FM Sensitivity [IHF]: 1.9 uv [-30 dB noise & dist.]

Capture Ratio: 2.8 dB.
What you don’t see
is what you get

Walnut case, included in the price.

Power Output—RMS, both channels driven.
- 27 watts × 2 @ 4 ohms, 1 KHz.
- 22 watts × 2 @ 8 ohms, 1 KHz.
- 14 watts × 2 @ 8 ohms, 20-20,000 Hz.
- 18 watts × 2 @ 8 ohms, 40-20,000 Hz.

Harmonic Distortion: 0.9% @ 8 ohms rated output, 0.20% @ 10 watts.
You won't see Sherwood advertised on television.

Manufacturers are constantly faced with an agonizing choice: How much do you spend on the product and how much do you spend advertising it?

With products like receivers, which require a great deal of handcrafting, whatever is spent on advertising must literally come out of the product itself.

It must be obvious to you that Sherwood is not exactly a household word.

At the same time you see other manufacturers spending a great deal of money to advertise in very expensive places: The Johnny Carson Show, The Today Show, in Playboy, Penthouse, Time, etc.

Advertising dollars must come right out of the product.

Example: one of the two top hi-fi component manufacturers [and advertisers] in this field boasts that their $200 receiver puts out $10 +10 watts RMS power @ 8 ohms from 40-16,000 Hz. The walnut case is extra.

Compare that to our S7100A spec: 18 + 18 watts from 40-20,000 Hz. And we include the walnut case. For only $219.95.

Another major manufacturer gives you 17 + 17 watts RMS [@ 1KHz] and charges $260. Our S7100A offers 22 + 22 watts for $40 less.

Spec for spec, dollar for dollar, we’ll match our receivers with any other manufacturer.

We put our marketing dollar into improving the receiver and rely on the equipment to speak for itself.

And that, obviously, is what’s been happening. Our S7100A was recently given a “Best Buy” rating by a leading consumer testing publication.

(For a recent review of the S7100A, see Stereo & HiFi Times Spring issue. Or write to us: Sherwood Electronic Laboratories, 4300 North California Avenue, Chicago, Illinois 60618.)

Who knows, we might be starting a trend:
Television programs with fewer commercial interruptions.

Goodnight, Johnny

Sherwood

The word is getting around.
Garrard introduces its new models.

This season, we have brought out four entirely new units in the Component Line, and refined the already famous ZERO 100, now in its third year of production. This unique Zero Tracking Error automatic turntable, which has earned the overwhelming regard of the critics, now becomes the ZERO 100c, and includes further advancements; including a built-in, automatic record counter... making the ZERO 100c the finest automatic turntable available at any price.

The Garrard policy of pursuing useful technical innovations and resisting “change for the sake of change,” has paid off handsomely this year. Most notably, the articulating Zero Tracking Error Tonearm, Garrard’s revolutionary patented design, has been incorporated in the ZERO 92, a new model at lower cost than the ZERO 100c. In addition, three other models, the 82, 70 and 62 have been introduced. The entire series both in styling and features, reflect the ZERO 100c design philosophy.

This year, more than ever, there is a Garrard automatic turntable to suit your specific needs. Your dealer will help you select the model that will best complement your system... whether that system is mono, stereo, 4-channel, matrix or discreet.

ZERO 100c
Two speed Automatic Turntable with articulated computer-designed Zero Tracking Error Tonearm. Features: Variable speed ±3%; Illuminated Stroboscope; Built-in automatic record counter; Magnetic anti-skating control; Sliding weight stylus force setting; 15° vertical tracking and cartridge overhang adjustment; Patented Synchro-Lab Synchronous Motor. $209.95*

ZERO 92
Three speed Automatic Turntable with articulated Zero Tracking Error Tonearm. Features: Lever type anti-skating adjustment; Sliding weight stylus force setting; 15° vertical tracking and cartridge overhang adjustments; Cueing/ Pausing control. Damped in both directions; Patented Synchro-Lab Motor. $169.95*

MODEL 82
Three speed Automatic Turntable with low-mass extruded aluminum tonearm. Features: Lever type sliding weight anti-skating adjustment; Sliding weight stylus force setting; 15° vertical tracking and cartridge overhang adjustments; Cueing/Pausing control. Damped in both directions; Patented Synchro-Lab Motor. $119.95*

MODEL 70
Three speed Automatic Turntable with low-mass aluminum tonearm and fully adjustable stylus pressure setting. Features: Torsion spring anti-skating control; Cueing/Pausing control; 2 point record support; Patented Synchro-Lab Motor. $89.95*

MODEL 62
Three speed Automatic Turntable with low-mass aluminum tonearm, fixed counterweight, and adjustable stylus pressure. Features: Torsion spring anti-skating control; Cueing/Pausing control; 2 point record support; Heavy duty four-pole Induction Surge Motor. $69.95*

*Less base and cartridge.
THE EAR VS.

- Provisions for external CD-4 demodulator.
- Built-in SQ decoder.
- Unique new lumped-selectivity IF circuitry and ultra-sophisticated phase-locked-loop multiplex decoder on FM.
- Studio-type fader control for volume.
- Studio-type fader controls for bass and treble.
- "Joystick" master balance control, with professional pan pots, for 360° localization and balance flexibility.
- 2/4-channel conversion with front-panel switch, for full use of every available watt in either stereo or 4-channel.
- Two tape recording and monitoring facilities.
If you want the best 4-channel sound, you've got to pay for it, right?

And, conversely, if your budget is limited, you've got to accept something less than the very best. So goes the conventional wisdom of the audio world.

In these fast-moving times, however, conventional wisdom may be out of date by the time it becomes conventional. The new Fisher 304B is a case in point.

From the ear's point of view (if we may mix our metaphors) there isn't really anything better than the 304B. A few other 4-channel receivers are more powerful and somewhat more versatile, but they don't produce purer sound; nor does the 304B lack any important features that the others have. In a somewhat less luxurious form than the latter, the 304B is "state-of-the-art."

That's why its remarkably low drain on the pocket, $399.95* is such a triumph.

Do you realize that a good tube receiver, for stereo only, cost about as much ten years ago? How did we do it? With the latest IC chips, for one thing. They do save space and money. And with the kind of production techniques and plant facilities that simply didn't exist a few years ago.

But that's our business. Your concern is the performance of the 304B. The specifications below will give you an idea. They're factual and conservative, easily verifiable by anyone with measuring equipment. And audible to anyone with an ear.

Fisher Radio, Dept. SR -11, 11-40 45th Road, Long Island City, N.Y. 11101.

THE POCKET.

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**SPECIFICATIONS**

**Amplifier and Audio Section:**

<table>
<thead>
<tr>
<th>Section</th>
<th>Stereo</th>
<th>4-Channel</th>
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<tbody>
<tr>
<td>1. Total Continuous Sine-Wave Power (RMS) (20 Hz – 20,000 Hz)</td>
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<tr>
<td>4 ohms</td>
<td>76W</td>
<td>80W</td>
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<tr>
<td>8 ohms</td>
<td>76W</td>
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<th>4-Channel</th>
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<tr>
<td>3. Total HF Music Power (at 1 kHz)</td>
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</tr>
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<td>154W</td>
<td>156W</td>
</tr>
<tr>
<td>8 ohms</td>
<td>120W</td>
<td>100W</td>
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</table>

Total Harmonic Distortion (THD)

- at rated power, 4 ohms: 0.5%
- at rated power, 8 ohms: 0.5%

FM Tuner Section

Usable Sensitivity (IHF Standard)

- Mono: 0.2% (at 400Hz, 100% modulation)
- Stereo: 0.3%

Signal-to-Noise Ratio

- at 100% mod. & 1 mvr input: 70 dB
- Selectivity (111F method)
- Alternating channel: 60 dB

Max. Antenna Input Level

- (for 0.5% THD): 3 volts

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*Fair trade price where applicable. Price slightly higher in the Far West and Southwest.
THE BLIND LEADING THE DEAF

CONSIDERING the amount of hot air that has been expended on it thus far, it is
remarkable that the quadraphonic balloon is still earthbound. The reason, I
think, is not far to seek: the industry—and by that I mean not so much the equipment
manufacturers as the record companies—appears to have forgotten, insensibly lost
sight of, or deliberately ignored what has historically been its first principle: software
comes before hardware. Instead of concentrating on that one item central to the
success of the whole enterprise—the quadraphonic disc itself—they have been
piddling away their corporate energies in a War of the Press Releases that is as profitless
to us all as any other paper chase has ever been. In the process, they have produced a
Summa theologica of verbiage, half simple propaganda, half complex theory, the
purpose of which is to convert the heathen from diabolical Matricism to holy Dis-
cretism, or double vice versa. Faith has its place, certainly, but not here; what we
want from these preachers is less argument and more proof. This is not to say that
the quadraphonic idea does not work; it works—when it works—splendidly,
and in any number of formats. But, in my experience, and that of a number of acute lis-
teners who have shared their impressions with me, it works only fitfully and, I am
afraid, accidentally. That is not enough; there can be no viable quadraphonic tech-
ology—or, if you like, art—until those "accidents" are repeatable at will.

What is needed right now is a concerted (dare I suggest cooperative?) industry
research effort, determinedly nonpartisan and chastely uncommitted to any single
theory, to attack certain basic questions not at the typewriter but in the laboratory
and, particularly, in the recording studio. If we are going to have quadraphonic
records that really work, and work every time all the time, we must be able to de-
monstrate objectively the best answers to such questions as: (1) Just how much acoustic
separation is actually needed (not theoretically possible) between speakers (left-right,
back-front, and even kitty-corner) to create a satisfying quadraphonic ambiance?
(2) What are the optimum acoustic power levels between these same elements? (3) To
what extent is it necessary, desirable, or possible to override pesky room-acoustics
difficulties through quadraphonic means? (4) And many others. I submit that all these
questions are best answered not through ex cathedra manifestos but in the
recording studio, probably through a great deal of carefully documented manipulation
of those relevant variables we know of. It will take much time and much
careful listening.

Now, just where are we going to get all the golden ears this research project will
require? Obviously, they are not in the recording studios, or we would already
be living in the quadraphonic millennium. Therefore, a suggestion: we are all familiar
with the apparently natural human tendency to close the eyes—apparently against
distracting visual impressions—when we really want to concentrate on listening. It
is a phenomenon easily observable not only in the concert hall but in the audio salon.
So, if the deprivation of one sense contributes to more efficient functioning of an-
other, why not appeal to those best qualified to demonstrate it—the blind? Both
instinctually and through the programmed training of such organizations as the
Lighthouse, the blind know the world acoustically. In the grossest sense, they know
indoors from out; in the finer they can determine room sizes (or, more valuably,
their acoustic sizes) and discriminate distance and direction with great precision.
Some, certainly, are more gifted in this art than others—not all ears are alike, after
all—but that merely suggests where this particular research project ought to begin:
with the putting together of a crackjack team whose best talent and first job is lis-
tening. And it is only a short step from there to reminding ourselves that, for many of
the blind, music is already a profession. Musical training needn't be a necessary quali-
fication for the listening panel, but surely a little, like chicken soup, wouldn't hurt.
With Sansui you are right on. Sansui engineering provides a series of four-channel receivers that are enough ahead of their time to put the future in your hands, now. The unique Sansui QS vario matrix gives you richer, fuller four-channel sound from QS (Regular Matrix) as well as SQ (Phase Matrix) sources, plus demodulated CD-4 and discrete tape. With its superior QS synthesizing section, it creates realistic four-channel sound from conventional stereo. Control your future with the QRX-6500, 5500, 3500, or 3000. Hear them at your franchised Sansui dealer.
Opening the Classical Door

In response to the Editor's request for door-opening classical works in his reply to the September letters of Ken Gould and Charles Martin, may I say that I've had almost total success with Vaughan Williams' Fantasia on a Theme by Thomas Tallis, a favorite recording being Morton Gould's on RCA. Also good are Vaughan Williams' The Lark Ascending and Barber's Adagio for Strings.

J. McFadden
Leawood, Kan.

My first classical recordings, which I still have (along with 275 more) were Arturo Toscanini and the NBC Symphony's performance of Beethoven's Symphonies 5 and 8 (RCA L M 1757) and Paul White man's version (with Leonard Pennario) of Gershwin's Rhapsody in Blue and American in Paris (Capitol T 1678). From this beginning at age twelve, and with time out for Viet Nam, I have become a junior working on a Bachelor of Music Education degree. I thank my grand father for playing Verdi on his phonograph so loud it could be heard throughout the house; my high-school choral director, whose interest in music—and in his students-charted my music education. And in case the content of this letter leaves you wondering at the catholicity of my musical taste, I feel you ought to know that I am only fourteen.

Geoffrey Rommel
Pewee Valley, Ky.

The Editor replies: It is good news indeed to learn that there are still those about who haven't had their prejudices installed yet. Mr. Rommel has a head start on a lifetime of pleasure, and I envy him.

The September-issue letters about discovering an interest in classical music brought back memories of several years ago when I was browsing in record shops on the same quest. May I recommend three in particular which then turned me on?: (1) Saint-Saëns' Symphony No. 3, Boston Symphony under Munch, RCA LSC-3341; (2) Stokowski's collection of four short pieces by Smetana, Liszt, and Enesco, RCA LSC-2471; and (3) E. Power Biggs' recital of French music on the organ at St. George's Church in New York, Columbia MS-6307.

Wesley Notthdurft
Peoria, III.

I am distressed by the reply you gave to Messrs. Martin and Gould (September) concerning their quest for enlightenment on classical music. Your recommendation is at best unhelpful and at worst disastrous. I am an ardent classical music lover who "graduated" from popular music (although I still listen to it). At one time I was unable to make head or tail of the music from records that were thought of as being "easy listening" classical. It was not until 1964, when I read The Enjoyment of Music by Joseph Machlis (W. W. Norton & Co., New York) that I was able to grasp the basics of classical music and started to find some satisfaction and enjoyment in listening. Classical music, unlike rock and middle-of-the-road, must be listened to intelligently, and that requires an understanding of the basic structure of the music; understanding is the key which leads to enjoyment and fulfillment, which is what music is all about.

Ferdinand Bennett
Brooklyn, N. Y.

The Editor replies: The notion that you have to know all about how something has been put together in order to appreciate it cannot be exploded by sampling the first item on the menu in any five-star French restaurant. The statement "I don't know anything about music, but I know what I like" seems to me to have perfect validity, but it is always met withering contempt by the cognoscenti—leading me to suspect that their motive may be to exclude the unwashed and selfishly reserve all those goodies for themselves.

Do not dispute that Mr. Bennett's entry into the world of classical music was through the analytical, intellectual portal. Fine, if it's an end result, works, it is, of course, the "approved" way, but that does not make it the only way or even the best way. If it were, then classical music would be enormously more popular today. There is scarcely a high school or college student in this country who has been able to escape a compulsory course in "music appreciation," but the success of such courses in turning out music lovers is notoriously nil. I don't know about the rest of the world, but Americans at least seem to be strongly drawn to the belief that one can "take a course" or read a "how to" book on any subject whatsoever and come out the other side an expert. This reduces the world and everything in it to the rote learning of a collection of facts. There are undoubtedly some subjects that are well handled in this "scientific" fashion, but the arts (music and cooking) are not among them.

The craft of musical composition, its history, its formal structure, and even performance practice are fascinating areas for exploration that can be expected to add dimension and depth to one's listening. But the best way to learn to love music is to listen to it, not read about it. To suggest that mere listening isn't enough, that it is somehow an inferior kind of pleasure, is to say that a composer is incapable of making his points with the music alone, that there must be an accompanying treat, ploy, or gloss to explain it. Mozart and I, at rather different sallies. The avenue of music appreciation is that of discovery, and I have rarely met a classical-music lover who could not tell me exactly when that discovery took place for him and what piece of music did the trick, and I suspect that even Mr. Bennett, if awakened in the middle of the night, would confess to being among that large company.

In response to the letters of Mr. Gould and Mr. Martin in the September issue, I too was a rock music fan. While looking at the Schwann catalog one day I noticed a listing for Scheherazade by Rimsky-Korsakov. In the past I have always had an idea of what I was getting before purchasing a record. In this case I decided to take a chance. My reasoning was that anything with an interesting name like that couldn't be sent to a mail-order house for the version by the Pitts Pass (Continued on page 10)

LETTERS TO THE EDITOR
For those content to settle for mere greatness in an automatic.

We'll be the first to admit it. There is a more advanced automatic turntable than our Miracord 760. It's our own Miracord 50H Mark II, and it costs about $35 more.

But to call the Miracord 760 "second best" is to call a Bentley "just another car."

For the similarities between the 760 and its more expensive big brother are rather awesome.

They begin with ELAC's unique push-button control system that takes the jolt and jar (however slight) out of operation, and permits enjoyment of ELAC's remarkable versatility with nary a thought about record damage caused by shake, rattle and roll.

And the 760 tracks with dead accuracy at as low as ½ gram stylus pressure (even when the turntable isn't on a level surface). Stylus force is applied at the pivot, in grams, by adjusting a calibrated scale. Anti-skating force is similarly adjustable, with equal precision.

Pitch control? Of course. Like our top-of-the-line Mark II, the 760 allows you to vary speed over a 6 percent range (equal to a semi-tone in pitch). And a built-in stroboscope allows for simple, unerring speed adjustment.

The family resemblance continues right on down to the two-voice, one-piece die-cast turntable platter, dynamically balanced for smooth, steady performance and speed that never varies.

The difference? It's in the motor. The 760 has a specially-designed spectacularly-consistent asynchronous motor. Its speed accuracy is virtually unsurpassed in the audio field.

Except, perhaps, by the 50H Mark II. At $35 more.

Clearly, if the ultimate in fidelity is what interests you, you're bound to wind up with an ELAC. The only question is whether you want mere greatness. Or a little bit more.

For some assistance in making the decision, may we send you literature on the entire ELAC line? It may simplify your choice when you visit your ELAC dealer to hear these remarkable automatics in action.

A word of caution. All of our turntables are handcrafted. Because it's the only way to ensure the kind of precision that ELAC stands for. This means neither the 760 nor the 50H Mark II may be readily available at your corner audio dealer's.

Frankly, we'd rather be great than easy to get. If you find yourself having to shop around for our turntables, take comfort in this obvious fact: you don't find a Rolls Royce dealer on every corner. Because greatness can't be mass produced.


MIRACORD 760

ELAC You can't rush craftsmanship.

CIRCLE NO. 19 ON READER SERVICE CARD
Stereophone Reviews...from the May/June 1970 issue of Stereophone, a magazine devoted to high-fidelity audio equipment and music. This page contains reviews and articles, including discussions on music recording and listening, and a general review of the magazine's content.

Title: STEREO REVIEW

Issue: May/June 1970

Author: Various contributors

Article: "The Dark Side of Joel Vance" by Thomas Lee Giens Fells, N.Y.

Content: This article discusses the musical career and music recording of Joel Vance, who has cleared thirty years in the music industry. The author highlights Vance's work with various orchestras and his contributions to the classical music genre.

Additional articles and reviews are featured throughout the issue, including discussions on music recording, album reviews, and industry news.

This page provides a glimpse into the world of high-fidelity audio and classical music, showcasing the dedication and passion of those involved in the field.

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"The Dark Side of Joel Vance" by Thomas Lee Giens Fells, N.Y.

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"It is a difficult task to comment on Joel Vance as a reviewer. Generally he wallows in nonsense. One of his reviews concerned an excellent group by the name of Pink Floyd, but it sounded as if Mr. Vance hadn't really listened to them at all. In between his hot-air-powered huffings and puffsings in this review (he must have been living with a pillowcase over his head), there are some comatose attempts at humor. Why let an old fudge like him write your reviews anyhow? And just what does "etain shudlig" mean?"

-- GARY WARD

"I was pleased also to read in the "Letters" column in the same issue of two gentlemen inquiring how they may experiment with and learn to enjoy and appreciate classical music. I am a great fan of the music of Johann Sebastian Bach. I have heard youthful admirers of the composer's music say that Bach is "way out"! So, Mr. Martin and Mr. Gould, try some Bach—you'll like it. For instance, the Brandenburg Concertos, the Suites for Orchestra, or some of the orchestrated transcriptions of the preludes and fugues."

-- ERNEST L. LEHMANN, JR.

"The arrival of the September issue conveyed the news that Bernard Jacobson is leaving the staff of STEREO REVIEW. Permit me to appreciate sincerely his efforts to give his readers interesting information concerning newcomers and those who are leaving active participation in the staff."

-- CLIFTON, N.J.

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"Joel Vance has, sad to say, cleared thirty. So offputting to the neophyte. I'm keeping an old stylus for them."

-- HUGH FOSTER, JR.

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"I was pleased also to read in the September issue was, as always, enjoyable and informative."

-- ALAN KLEIN

---

"The Black Side of Joel Vance...I disagree with Joel Vance's review of Pink Floyd's "The Dark Side of the Moon" (August). I have read many of Mr. Vance's other reviews and I respect him as a capable reviewer who incorporates incisive wit into his less-than-positive reviews and an abundance of flowing praise into the most positive ones. I feel that someone more in favor of Pink Floyd should have done the review. To use the eloquence of another to state my viewpoint, I refer to Bernard Jacobson's review of the Babbitt-Wuorinen disc in the May issue of Stereophone..."

-- SEBASTIAN MITCHELL

---

"Finally, the September issue is always enjoyable and informative."

-- KENNETH F. CARLEY
Five disturbing facts about loudspeakers no other manufacturer has the guts to tell you.

1. There are approximately one hundred different makes of "high fidelity" speakers sold in the United States, confronting the buyer with an incredible clutter of names, types, claims and counterclaims.

Of the hundred, no more than twenty are relevant, in the sense that they represent some sort of serious engineering effort and manufacturing philosophy, whether successful or not.

The remaining eighty are opportunistic marketing ventures, big and small, responding to the merchandising needs of stores, not the listening needs of the public.

2. About nine out of ten speaker manufacturers, the good guys as well as the bad guys, buy their drivers (woofers, tweeters, etc.) from outside suppliers in the U.S., Europe and Japan.

There are only a handful of these "raw speaker" houses and they stand ready to make anything their customers specify, from the most sophisticated drivers to the cheapest, a hundred thousand units or just five hundred.

There's nothing inherently wrong with assembling systems from other people's speakers, as long as a talented and experienced speaker designer is doing it.

At Rectilinear, we buy our drivers only from the best suppliers, who make them to our rigid specifications to match the system designs we've developed. We make our own crossover networks and cabinets.

But not every manufacturer is like us.

3. Among the approximately twenty technologically and ethically respectable speaker brands, some six or seven are relevant only to a small coterie of dedicated audiophiles.

These are the avant-garde designs, utilizing electrostatic or other unconventional drive principles as well as diaphragms of exotic shape and construction.

In most cases, these speakers require special, expensive amplifiers and compulsive owners who enjoy fussing and fiddling.

4. The thirteen or fourteen speaker makers who are both serious and reasonably conservative, and among whom we confidently number ourselves, are hopelessly split on the issues of sound dispersion and speaker "personality."

Some believe, and so far we're one of them, that a speaker should radiate sound only forward, over as wide an angle as possible. Others aim various drivers at the back wall or the ceiling, to bounce off the sound before it reaches the listener.

We feel that the arguments for the latter approach are unscientific and that the resulting sound is phony. (When somebody comes up with a reflective design that presents a correct spatial perspective, we may change our mind.)

As for personality or character, a speaker should theoretically have none, since it's a reproducer, not a musical instrument.

When two speakers sound different playing the same program material, at least one of them is wrong. Maybe both.

But they do sound different, even in this heavily screened group.

There's the West Coast sound, for example, favored mainly by California-based firms and characterized by sizzling highs, a huge bass and lots of so-called presence. Everything a bit overstated and larger than life.

There's also the polite New England sound, with its origins in the Boston area. Nice and smooth, neutral, everything in its place, nothing shrill, but somehow muffled and less vivid than real life.

We believe that, despite their charms, both of these personalities are wrong. Only a totally characterless accuracy is right. What goes in must come out, no more and no less. Let the record producer create the type of sound you hear, not the speaker manufacturer. At least not Rectilinear.

5. There's also a new impediment to accurate sound reproduction: the epidemic of "three-dimensional" or "sculptured" speaker grilles made of polyfoam.

A speaker grille should be, above all things, acoustically transparent.

There should be no audible, and virtually no measurable, difference in the output of the speaker with the grille on or off.

But the foam material these newfangled grilles are made of is the same as the appliance people use for muffling the mechanical noises of air conditioners!

How a reputable manufacturer can use a sound deadener for a speaker grille is beyond us, but everybody seems to be doing it.

Until acoustically transparent three-dimensional materials become available, our grilles will remain prosaically two-dimensional.

So, Okay. Besides Rectilinear, are there any sincere, serious, nonexotic speaker companies that make forward-radiating, personality-less, accurate-sounding systems without 3-D grilles?

We don't know of any.

In our own cautious, methodical way, we're unique.

RECTILINEAR
Rectilinear Research Corp., 107 Bruckner Blvd., Bronx, N.Y. 10469
Canada: H. Roy Gray Limited, Ontario
The APL-9 Reflecting Speaker System combines contemporary styling with the latest in sound technology. It is available with either an inlaid synthetic slate top or an oiled walnut top. In appearance, size, and versatility of room placement, the APL-9 will enhance any decor.

The APL-9, pentagonal in cross section, utilizes 9 identical 5 1/4" high compliance drivers. The efficiency of the APL-9 permits effective use with amplifiers and receivers capable of delivering only 20 watts r.m.s. per channel while having a maximum power handling capacity of 110 watts r.m.s. each.

Mr. Klein replies: Mr. Byrne raises a good point that I should have discussed in the article. Even assuming that spokes with some deviation from flat response are used as monitors for the original recording, it would still make good sense to use a flat-response speaker for playback. This would allow the listener to start from neutral, so to speak, and then employ tone controls or equalizers to inject whatever frequency alterations are necessary for subjectively satisfactory results. Incidentally, different brands of monitor speakers tend to sound more like each other than different brands of loudspeakers and the majority of monitor speakers in use (Billboard's Directory of Recording Studios lists APL as the leading supplier) are reasonably flat and uncolored throughout the midrange—which is where many home speakers run into trouble. (For further information on what studio monitoring is all about, see John Eargle's August 1972 article on the subject in Stereo Review.)

Audio Qua(n)dary Continued

I have just finished reading William Anderson's editorial entitled "Audio Qua(n)dary" in the August issue, and it appears that what the two major record companies are saying in essence is that if you want to listen to their records in four-channel sound you must choose either a discrete or a matrix system, as the two are incompatible. Why must we choose? Why can't we have the best of both on the same record?

I have read several articles in the last year which state that it is theoretically possible to put both on the same disc. One of them is in the July 1972 issue of Audio, entitled "Why the Four-Channel War Need Not Take Place" by Leonard Feldman. I do not have sufficient electronic expertise to fully evaluate his arguments, but they appear valid. If Mr. Feldman's and other authors' statements are correct, then it would seem that the power struggle between RCA and CBS is being propagated with complete disregard for the detrimental effect it could have upon the industry and its consumer.

Even if the conclusions of Mr. Feldman and others are incorrect, I believe that every effort should be made to perfect such a record. This would allow the consumer to determine which method of four-channel reproduction he chooses and give him a complete selection of records.
Our new receiver demodulates or decodes any kind of 4-channel. Even some that haven't been invented yet.

The Technics SA-8000X is master of all 4-channel systems. With special talents in discrete. Like a built-in demodulator for CD-4 records. Plus jacks for up to three 4-channel tape sources. And jacks for future discrete 4-channel FM.

It can handle any matrix method with ease. Because the Acoustic Field Dimension (AFD) controls and phase shift selector adjust to the coefficients of all the popular systems. Plus some that haven't been tried yet. And the same controls can help compensate for poor speaker placement and unfortunate room acoustics.

The 4 direct-coupled amplifiers each have 22 watts of RMS power at 8Ω, each channel driven. And because they can be strapped together, you get 57 watts RMS per channel at 8Ω, each channel driven, in the 2-channel mode. That's double-power stereo.

In the FM section, we have combined a 4-pole MOS FET, ceramic IF filters, a monolithic IC and epoxy resin coils for superb reception. FM sensitivity measures 1.9 µv.

Insist on the SA-8000X for total 4-channel. The concept is simple. The execution is precise. The performance is outstanding. The name is Technics.

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FOR YOUR NEAREST AUTHORIZED TECHNICS DEALER, CALL TOLL FREE 800 447-4700. IN ILLINOIS, 800 322-4400.

Technics
by Panasonic
TDK’s ED has more of what audiophiles want...

extra dynamic performance

If you’re an audiophile you know what you want—the best cassette there is. That’s why you’ll insist on TDK’s top-of-the-line EXTRA DYNAMIC (ED). Once you discover ED’s superior total performance, you won’t settle for anything less than the cassette with more of everything.

EXTRA DYNAMIC offers audiophiles an entirely new dimension in cassette recording fidelity. Its performance characteristics—shown above on TDK’s Circle of Tape Performance (see opposite page) — are better balanced and superior to those of any other cassette now on the market, including the two competitive so-called “hi-fi” cassettes also shown.

ED’s superior total performance results from use of TDK’s exclusive new “Stagnetite”® (stabilized magnetite) coating plus a special binder and proprietary techniques. ED cassettes have the industry’s highest MOL (maximum output level), broader dynamic range, extended frequency response, higher signal-to-noise ratio and other characteristics for incomparably fresh, rich and full-bodied sound on any recorder, without need for special bias.

Ask your dealer for TDK EXTRA DYNAMIC cassettes when nothing but the very best total performance will do. Once you try ED, you’ll wonder why you ever used anything else.

TDK ELECTRONICS CORP.
755 Eastgate Boulevard, Garden City, New York 11530

TDK’s EXTRA DYNAMIC (ED), SUPER DYNAMIC (SD) and DYNAMIC (D) cassettes are available in 45, 60, 90, 120 (SD & D) and even 180-minute (D only) lengths, TDK KROM (KR) chromium-dioxide cassettes are available in 60 and 90-minute lengths. At quality sound shops and other fine stores.
more about
TDK's circle of tape performance
....a whole new way to evaluate tape

A tape's ability to provide "real-life" sound reproduction depends not only on its MOL (maximum output level) values and the familiar frequency response characteristics, but also on the value and proper balance of a number of other properties. TDK has arranged the twelve most important tape characteristics on their exclusive CIRCLE of TAPE PERFORMANCE diagrams, shown below. Each of the radii represents one of the twelve factors, and the outer circle represents the ideal, well-balanced characteristics of a "perfect" tape. The closer the characteristics of any cassette tape approach those of the ideal (the larger and more regular the pattern), the better the sound reproduction capabilities of the cassette. The goal is to reach the outer circle. Compare TDK's well-balanced characteristics with those of the two leading so-called "hi-fi" competitive cassettes and a typical conventional tape. Judge for yourself which provides the best characteristics for true high fidelity performance.

**ED**

**EXTRA DYNAMIC**

for the discriminating audiophile, an entirely new dimension in cassette recording fidelity. Vastly superior to any other cassette, with unmatched performance on any deck. 45, 60 and 90-minute lengths.

1 - MOL @ 333Hz
2 - Sensitivity @ 333Hz
3 - Sensitivity @ 8kHz
4 - Sensitivity @ 12.5kHz
5 - MOL @ 8kHz
6 - Erasability

**SD**

**SUPER DYNAMIC**

turned the cassette into a true high-fidelity medium. Outstandingly clear, crisp, delicate reproduction of the complex characteristics of "real-life" sound. 45, 60, 90 and 120-minute lengths.

1 - MOL @ 333Hz
2 - Sensitivity @ 333Hz
3 - Sensitivity @ 8kHz
4 - Bias Noise
5 - MOL @ 8kHz
6 - Print-Through
7 - Modulation Noise

**D**

**DYNAMIC**

excellent hi-fidelity at moderate prices, with well-balanced performance characteristics superior to most "premium" cassettes. 45, 60, 90, 120 and 180-minute lengths — the world's only 3-hour cassette.

1 - MOL @ 333Hz
2 - Sensitivity @ 333Hz
3 - Sensitivity @ 8kHz
4 - Bias Noise
5 - MOL @ 8kHz
6 - Erasability
7 - Bias Noise
8 - Print-Through
9 - Modulation Noise
10 - Output Uniformity
11 - Uniformity of Sensitivity
12 - Bias Range

**ED'S EXCLUSIVE NEW "STAGNETITE® COATING**

TDK EXTRA DYNAMIC is the world's only tape with a magnetic coating of "Stagnetite". The coating consists of microscopically fine particles of stabilized magnetite in a special binder. Magnetite is a material with magnetic properties which make it ideal as a recording medium, except that in its natural state it is not sufficiently stable. TDK discovered a way to permanently stabilize magnetite particles; the result (Stagnetite) is a perfect coating material for magnetic recording tape, contributing to ED's unrivaled "real-life" sound reproduction capabilities.

**THE IMPORTANCE OF HIGH MOL**

TDK's EXTRA DYNAMIC tape has the highest MOL values of any cassettes on the market today. MOL means maximum output level, and is perhaps the most important single characteristic of a recording tape. MOL is the output signal level resulting from an input signal which produces 5% distortion in the output. A tape with high MOL can be recorded at higher input levels without audible distortion on playback. High MOL lets you faithfully reproduce all the complex transient phenomena, subtle overtones and important harmonics that give the original sound its natural warmth, richness, depth and feeling.
NEW PRODUCTS THE LATEST IN HIGH-FIDELITY EQUIPMENT

Trusonic JR-100M Speaker System

- The JR-100M, a new speaker system just introduced by Trusonic, is a three-way design employing a 10-inch woofer in a ported enclosure measuring 23 x 14 x 10 inches. The 5-inch cone midrange driver is installed in its own internal sub-enclosure to isolate it from the woofer-generated pressures in the main cabinet. High frequencies are handled by a 1-inch phenolic-dome tweeter with a short, circular horn. The crossover network, with 12-dB-per-octave rolloff characteristics, divides the audio band at 1,500 and 5,000 Hz. A rear-panel control adjusts the output levels of both the mid-range and high-frequency drivers. The frequency response of the JR-100M is 30 to 20,000 Hz, with a rated power-handling capacity of 40 watts program material. Nominal impedance of the system is 8 ohms. The cabinet is constructed of 1/4-inch hardwood panels with oiled walnut veneers. The sculpted acoustically transparent foam grille, which is removable, comes in a choice of shades including brown, orange, and violet. Price: $119.95.

Circle 115 on reader service card

Pilot 252 and 253 AM/Stereo FM Receivers

- Pilot's moderately priced receivers, Models 252 and 253 (shown), provide 25 and 35 watts per channel continuous, respectively, into 8-ohm loads with both channels driven. Distortion, both harmonic and intermodulation, is 0.5 per cent at rated output. Hum and noise are down 75 dB (high-level inputs) and 65 dB (phono inputs) in both receivers. FM IHF sensitivities for the two receivers are 2.2 and 1.8 microvolts, and their capture ratios are 2 dB and 1.5 dB. Further FM specifications for the Models 252 and 253 include: alternate-channel selectivities, 50 and 65 dB, respectively; image rejection, 50 and 80 dB; i.f. rejection, 70 and 90 dB; stereo separation (at 400 Hz), 35 and 36 dB. Both tuner sections are rated at 0.8 per cent harmonic distortion for stereo reception.

The control sections of the 252 and 253 are quite similar, with volume, balance, bass, and treble controls (the last two are separate adjustments for each channel), and pushbuttons for such functions as switching loudness compensation, mono/stereo mode, tape monitor, high-cut filter, FM interstation-noise muting, and two stereo pairs of speakers. The 252 has inputs for external phono and auxiliary sources, and the 253 has a second phono input that can also be used for a microphone plugged into the front-panel jack. Both units have stereo-headphone outputs: the 253 also has a front-panel tape-dubbing jack. The receivers are identical in size — 18 x 5 1/8 x 13 1/2 inches — and both come with walnut cabinets. The Model 252 is priced at $249.90; the Model 253, $299.90.

Circle 116 on reader service card

Shure-SME Improved Tone Arm

- The venerable SME Model 3009 tone arm, distributed in this country by Shure Brothers, has now become the Model 3009 Series II Improved, incorporating modifications that result in reduced effective mass and more accurate anti-skating compensation. The new design has a lighter counterweight that is located closer to the pivot assembly, requiring less installation clearance than the previous model. The detachable cartridge shell has also been replaced with a fixed version. These reductions in mass result in improvements in the tracking of warped records and susceptibility to vibration. The counterweight now rotates to establish tone-arm balance, and the thread-and-weight anti-skating system has been provided with a pulley to diminish drag. The arm is intended for phono cartridges weighing from 4 to 9 grams; the tracking-force adjustment covers a range of 0 to 1 1/2 grams in 1/4-gram increments. Price: $135. The Model 3009/S2 Improved ($147) retains the detachable cartridge shell with the penalty of slightly increased mass.

Circle 117 on reader service card

Kirksgaeter RTX AM/Stereo FM Receivers

- Audioson is importing two new Kirksgaeter stereo receivers, the RTX 85.55 (shown) and the RTX 120.85, identical except for their power outputs. The RTX 85.55 is rated at 65 watts continuous per channel, and the RTX 120.85 at 85 watts per channel, both channels driven simultaneously into 8-ohm loads. Harmonic distortion is under 0.09 per cent at the rated outputs, and the signal-to-noise ratio for both units is 90 dB. The power amplifiers of the RTX receivers are in the form of plug-in modules, each with its own power supply. The tuner and control sections operate from separate supplies. IHF FM sensitivity is 1.5 microvolts, with a capture ratio of 2.5 dB and alternate-channel selectivity and AM suppression of 60 dB. Stereo FM separation is greater than 36 dB at 1,000 Hz; image rejection is 65 dB. Controls include volume, balance, bass, and treble (separate for each channel), and pushbutton selection of inputs (including two phono inputs, microphone, and one auxiliary), tape monitor, high- and low-cut filters, stereo mono, FM interstation-noise muting, loudness compensation, AFC, and mid-range boost for augmented presence. Five FM stations can be preset so that they are selectable at the touch of a pushbutton. The receivers have signal-strength and channel-center tuning meters, and two stereo.

(Continued on page 20)
FREE INFORMATION SERVICE

Here's an easy and convenient way for you to get additional information about products advertised or mentioned editorially in this issue. Just follow the directions below and the literature will be sent to you promptly and free of charge.

Tear out one of the perforated postage-free cards. Please print or type your name and address where indicated.

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

Simply mail the card. No postage is required.

This address is for our "Free Information Service" only. All other inquiries are to be directed to, Stereo Review, One Park Ave., New York, N.Y. 10016.
The Most Spectacular Sound Exhibition of STEREO FIDELITY Ever Available on one Disc.

This record is the result of two years of intensive research in the sound libraries of Deutsche Grammophon Gesellschaft, Connoisseur Society, Westminster Recording Company and Cambridge Records Incorporated. The Editors of Stereo Review have selected and edited these movements that best demonstrate each of the many aspects of the stereo reproduction of music. The record offers you a greater variety of sound than has ever before been included on a single disc. It is a series of independent demonstrations, each designed to show off one or more aspects of musical sound and its reproduction. Entirely music, the Record has been edited to provide self-sufficient capsule presentations of an enormous variety of music arranged in a contrasting and pleasing order. It includes all the basic musical and acoustical sounds that you hear when you listen to records, isolated and pointed up to give you a basis for future critical listening.

WIDE RANGE OF DEMONSTRATIONS
- Techniques of Separation & Multiple Sound Sources
- Acoustic Depth
- Ambiance of Concert Hall
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- With Both Similar & Contrasting Instruments
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- Sounds of Ancient Instruments
- Sounds of Oriental Instruments
- Sound of Singing Voice, Both Classically Trained and Untrained

13 SUPERB SELECTIONS
- STRAUSS: Festive Prelude, Op. 61 (excerpt) DGG.
- MASSAINO: Canzona XXXV a 16 (complete) DGG Archive.
- KHAN: Raga Chandranandan (excerpt) Connoisseur Society.
- RODRIGO: Concerto—Serenade for Harp and Orchestra (excerpt from the first movement) DGG.
- MANITAS DE PLATA: Gypsy Rhumba (complete) Conn. Soc.
- MARCELLO: Psalm XVII “The Heavens are Telling” (complete) Connoisseur Society.
- PRAETORIUS: Terpsichore: La Bourrée XXXII (complete) DGG Archive.
- BERG: Wozzeck (excerpt from Act III) DGG.
- BARTOK: Sonata for two pianos and Percussion (excerpt from the first movement) Cambridge Records.
- BEETHOVEN: Wellington’s Victory (Battle Victory) (excerpt from the last movement) Westminster.

AVAILABLE IN YOUR CHOICE OF 33 1/2 RPM OR 45 RPM

The Stereo Demonstration Record is processed and pressed on a newly developed, improved vinyl. It is permanently anti-static, repels dust and dirt and promotes longer stylus wear. The use of this material is conducive to low surface noise and contributes to the production of full dynamics and frequency range. The record continually looks new, sounds new and wears longer.

FREE Descriptive Booklet Enclosed includes discussion of the selections on the record, plus a complete description of each selection and the purpose behind its demonstration.

HERE’S HOW TO ORDER YOUR STEREO DEMONSTRATION RECORD

CASH: Mail your order along with your name, address and remittance in the amount of $5.98, postpaid.

CHARGE: Your American Express or BankAmericard account! Mail your order, name, address and credit card number. You will be billed at $5.98, postpaid.

MAIL ALL ORDERS TO: RECORDS, ZIFF-DAVIS SERVICE DIVISION, 595 BROADWAY, NEW YORK, N.Y. 10012. OUTSIDE U.S.A. RECORDS ARE $8.00 POSTPAID.
"...the most powerful stereo receiver in its price class by a considerable margin..."

A challenging claim?
They're describing the new Pilot 254 and they go on to say, "Our test measurements clearly showed that the advertised specifications for the Pilot 254 are not only honest, but quite conservative."
Separating verifiable fact from advertising fiction is a testing lab's specialty. Making sure that every Pilot product meets or exceeds every one of its specifications is our specialty.
How well we do our part, may be judged from the rest of the Hirsch-Houck report.
The Pilot 254 specifications read: 65 honest watts per channel, 8 ohms, both channels driven. The Lab finds, "At 1000 Hz, the outputs clipped (were overdriven) at 82 watts per channel..."
We rate harmonic and I.M. distortion at 0.4% and 0.5% respectively. They find, "At Pilot's rated 65 watts per channel output level, distortion was 0.1% to 0.15% from 20 to beyond 10,000 Hz, reaching a maximum of 0.25% at 20,000 Hz."
In evaluating the FM tuner section, the Lab reports, "FM tuner performance was well up to the standards of the audio section."

We rate IHF sensitivity at 1.8 uV with harmonic distortion at 0.4% mono and 0.8% stereo. They find, "...a 1.7 uV IHF sensitivity and only 0.16% harmonic distortion at almost any useful signal level with mono reception. The stereo distortion was about 0.5%.
We list capture ratio at 1.5 dB. They find, "The capture ratio was an excellent 1 dB..."
And they go on to confirm the same outstanding performance figures for noise, stereo separation, image rejection and all the rest.
Finally, they sum it all up with, "...we could not fault this fine receiver in any respect."
Listen to the Pilot 254 and you will agree.
For the complete text of the report and additional information write: Pilot, 66 Field Point Road, Greenwich, Conn. 06830.

The Pilot 254 Stereo Receiver $429.00*
*Manufacturer's suggested retail price
NOVEMBER 1973

PILOT
performance is more than great specs
NEW PRODUCTS

headphone jacks. A speaker selector chooses between two pairs of speakers, or silences both pairs for headphone listening. The receivers also have rear-speaker output terminals, providing some decoding capability for matrixed four-channel recordings as well as giving a four-channel effect with two-channel material. In addition, there are two channels of tape-playback-head preamplification/equlization for stereo tape decks that lack electronics or for two-channel tape decks in which a four-channel playback head has been installed. The receivers measure approximately 19¼ x 5¾ x 14¼ inches; they come with walnut-finish wood cabinets. Prices: RTX 85.55, $649.95; RTX 120.85, $749.95. Decorator cabinets in matte white or black finishes cost $20 extra.

Circle 118 on reader service card

Advent/2 Speaker System

Pioneer AM/FM
Four-Channel Receivers

- Three new receivers from U.S. Pioneer are fully equipped to handle all current four-channel program material, including discrete tapes, recordings encoded via the SQ, RM, or other matrix systems, and CD-4 “discrete” discs. In order of increasing price they are the Models QX-646 ($499.95), QX-747 ($599.95), and QX-949 ($699.95, shown). Basically similar in function and configuration, with each increase in price they offer somewhat more control flexibility and incremental improvements in most specifications, as well as an approximate doubling of output power, from 10 watts per channel (continuous, all four channels driven into 8 ohms at 1,000 Hz with 1 per cent harmonic distortion) for the QX-646 to 40 watts per channel (as above, except that harmonic distortion is 0.3 per cent at any frequency from 20 to 20,000 Hz) for the QX-949. Signal-to-noise ratios exceed 90 dB for high-level inputs and 70 dB for phono inputs. For the FM sections, 1HF sensitivities range from 2.2 to 1.8 microvolts, capture ratios from 3 to 1 dB, and alternate-channel selectivities from 40 to 80 dB. In general, from 50 to 100 per cent more power is available when the receivers are used in the two-channel mode.

All three receivers have master volume controls affecting all four channels. The Models QX-949 and QX-747 also have separate level controls for each channel, along with unique four-channel visual level displays employing filament coils of progressively increasing thickness (with each increase in signal strength, a longer segment of the coil is set aglow). The QX-646 lacks the visual display, and has an array of three balance knobs for complete left-to-right and front-to-back adjustment. All three receivers share such operating features as signal-strength tuning meters, switchable loudness compensation, FM interference effects. The crossover frequency is 1,500 Hz and the nominal impedance is 8 ohms. System resonance is 58 Hz. At least 10 watts per channel of amplifier power is recommended to drive the system. The cabinet of the Advent/2 is soft white with a silver-gray grille. Dimensions are 11½ x 19 x 7¾ inches. Price: $58.

Circle 119 on reader service card

Teac Tape-Recording Booklets

- Two free booklets available from Teac serve as guides to the manufacturer’s current line of tape-recorder accessories and also offer suggestions on routine recorder maintenance, troubleshooting, and special-effects recording techniques. The first, entitled Expanding the Art of Tape Recording, is principally a catalog that describes and illustrates such Teac products as dynamic and electro-condenser microphones, microphone and line impedance-matching transformers, various remote-control devices, reels and reel-hub adapters, and maintenance aids. Three pages are devoted to simple troubleshooting procedures and tips on preventive care. The second booklet, Meet the Creator, is a guide to creative multi-track recording that covers the topics of artificial echo and simple “pan-pot” effects in some depth. It is based on the operating facilities of Teac’s 3340 four-channel tape deck with “Simul-Sync,” but many of the techniques are applicable to similar machines from other manufacturers and, to a limited extent, to two-channel recorders. Both booklets are twenty-three pages long and are illustrated with diagrams and black-and-white photos. They are available from Teac dealers or by writing Teac Corporation of America, 7733 Telegraph Road, Montebello, Calif. 90640.

Circle 120 on reader service card

THE LATEST IN HIGH-FIDELITY EQUIPMENT
THE ONLY CARTRIDGE
WE KNOW OF THAT
WILL DO FULL JUSTICE TO A
NEW GENERATION OF STEREO RECORDS.

For the first time in many years, all that can be put onto stereo records by professional disc-cutting equipment can be gotten off them by a cartridge—the new Ortofon M 15 E Super.

It is the only pickup we know of that not only can handle the peak levels and full dynamic range now possible on records, but while doing so can operate below the wear threshold of modern discs, preserving their full quality for playing after playing.

As makers of studio record-cutting equipment (Ortofon supplies equipment to recording companies and studios around the world), we know the capabilities of the newest generation of cutters, which for the first time can clearly put onto records a dynamic range approaching that of master tape. The maximum high-frequency levels these cutters will record also permit the first real approximation of the full "live" intensity of cymbals, brass, snares, and other demanding instruments.

On the test record that best reflects these new capabilities (#2 in a series recorded by the German High-Fidelity Institute), most other pickups begin to reveal audible (and, on an oscilloscope, visible) shatter at a recording level of 70 to 80 μm. Only the Ortofon M15 E Super goes to the record's 100 μm limit (and beyond) with no audible or visible indication of difficulty. The photos of oscilloscope traces at right are an accurate indication of the new Ortofon's superior performance.

That test is a decidedly accurate reflection of audible differences in the real world of the listener's living room. What it means is that on the most demanding stereo records that can now be made, exactly the records that someone with really excellent equipment and a habit of listening closely is likely to buy, only the new Ortofon is likely to handle everything with no sign of strain or "fuzzing."

The M15 E Super was designed specifically to achieve this performance while tracking (at a force of 1 gram) below the modulus of elasticity—the threshold beyond which the vinyl of a record groove doesn't immediately spring back into shape after the stylus passes. (It is an absolute must to track below this point if permanent damage is to be avoided.) To make this possible, the Ortofon's unique VMS (Variable Magnetic Shunt) design combines very low moving mass (0.5 milligram), very high structural strength in the moving system, and very high stylus compliance—50 x 10⁻⁶ cm/dyne in the horizontal plane, 30 x 10⁻⁶ cm/dyne vertically.

The new Ortofon is the latest product of a company involved with records and professional studio recording equipment for more than fifty years. Manufactured and tested at Ortofon's factories in Denmark, the M15 E Super is also rechecked in the United States after shipment.

We will be happy to send you full specifications, descriptive material (including reviews), and a list of Ortofon dealers if you will write us at the address below.

Ortofon
9 EAST 38TH STREET, NEW YORK 10016

NOVEMBER 1973
CIRCLE NO. 49 ON READER SERVICE CARD

A) Essentially undistorted lateral tracking by the Ortofon M 15 E Super of a 300-Hz test tone recorded at a peak amplitude of 100 μm. Tracking force: 1 gram.

B) A more expensive cartridge shows significant distortion at an amplitude of only 70 μm, tracking at 1½ grams in the same tone arm.

C) The same cartridge (same arm and tracking force) indicates unlistenable performance at 100 μm.
AUDIO
QUESTIONS
and
ANSWERS
By LARRY KLEIN, Technical Editor

Speaker Rumble
Q: To compensate for poor bass response on some records, I turn up the bass control on my stereo receiver until the tonal balance becomes satisfactory. Although the sound is then all right, I develop a loud rumble in my speakers. The slightest movements I make near the turntable or even a small bump in a record will cause this distortion. Does this problem exist because of overload in my magnetic cartridge?

A: No, your system is suffering from acoustic feedback. Judging from my mail, this problem is quite prevalent and is usually misdiagnosed by those suffering from it. Acoustic feedback occurs in a hi-fi system when the sound energy from the speakers is sufficient to vibrate the turntable and/or tone arm. This may occur because the turntable is installed on (or in) furniture that somehow captures and transmits the acoustic energy, or because the turntable is installed at a point in the room where low-frequency standing waves hit their maximums, or because the turntable assembly itself is particularly sensitive to external vibrations. The solution in all cases is to relocate your turntable or to remount it using soft foam pads as shock-isolating elements between the base and the surface on which it rests.

Eight-track Cartridge Cleaning
Q: I have a good collection of eight-track cartridges and every so often I clean the little rubber pressure rollers in the cartridges. I decided to do this after reading that it is a good idea to clean the capstan and pressure roller in open-reel recorders. Is this a good practice and does it help my machine?

A: It seems a good idea to me, although I have never seen it suggested as a recommended practice. The only caution I can think of is to keep the cleaning fluid (rubbing alcohol would be best) away from the tape itself as it may dissolve the lubricant normally used in cartridge tapes. Pull out two or three inches of the tape so as to form a loop over the cartridge's pressure roller and rotate the roller by hand while rubbing it briskly with a cotton swab dampened with alcohol. And make sure the roller is dry before pushing the tape back in place.

U.S. vs. Imported Equipment
Q: As military men in the Far East we have access to all types of Japanese stereo equipment, and, being electronic technicians, we find ourselves spending countless hours arguing the merits of the various units. As perhaps could be expected, we are divided into opposed camps: the "cheap Japanese stuff" group, and the "it's as good as American equipment, and perhaps even better" group.

A: In addition, another source of argument is that we seldom find magazine test reports complete enough because they are concerned only with measured specifications and operating features. Seldom do we read so much as a "seems to be well constructed." We feel that the quality of construction is a major factor in determining the total worth of a unit, and failure to mention it is a serious shortcoming of hi-fi publications. Can you help us resolve our questions? We desperately need an outside voice before blood is spilled.

B. BELKIN, M. BRANDT, J. McGaEw
FPO, San Francisco, Cal.

Induced Hum
Q: I recently bought an expensive cassette deck from a friend after having listened to it connected to his system and being impressed by its performance. When I installed it in my system, where it fit conveniently on top of the receiver, it suffered from a bad hum in one channel. I tried changing the leads and everything else I could think of, but the hum remained. When I returned the cassette deck to my friend and he connected it to his system, the hum was gone. Is there something in my system that was causing the cassette deck to hum? Everything else worked fine.

A: Yes, there is something in your system that's giving trouble—probably the 60-Hz electromagnetic field produced by the a.c. power transformer in your receiver. All power transformers—unless they are specially constructed to eliminate it—radiate such an electromagnetic field. Placing the cassette deck on top of the receiver brought the record/play head (or possibly some other component) in your deck within the hum field, which was picked up and converted into a 60-Hz audio signal. My hypothesis can be easily tested by operating the cassette deck alongside your receiver—not on top of it—to see if the hum trouble disappears.

North Little Rock, Ark.

I've discussed your second question at length in previous columns, but I'll give it one more go-round. It is difficult, if not impossible, for any test lab to establish the durability of an audio component by a visual examination. Sure, industrial/computer-style wiring and layout appears impressive, but it is no guarantee of performance or reliability. I've seen equipment that looked as though it was wired by a drunken monkey (or by me when I was in a rush to check out a design) that worked fine for years, and, conversely, some sleek-looking, apparently heavy-duty devices that seemed to break down every fifteen minutes.

I'm afraid you are looking for an answer that no one can supply. The vast majority of the factors that result in lack of reliability seldom appear during the testing done in product evaluation, and are rarely disclosed by an examination of the circuit diagram.

As one example of the difficulty: how can anyone know when the "doping" of the silicon that goes into a transistor has some impurity that perhaps will, after several months of use, cause the transistor to self-destruct? If the manufacturer of the transistor knew of the potential problem he wouldn't have sold it; if the component manufacturer knew, he wouldn't have used the transistor in his amplifier; and if the test labs knew, they wouldn't have run a favorable report.

B. BELKIN, M. BRANDT, J. McGaEw
FPO, San Francisco, Cal.
Be Sure To Hear The Advents.

Before you buy your first or your next pair of loudspeakers, it will pay you to hear the Advents.

Both the original Advent Loudspeaker and The Smaller Advent Loudspeaker were designed to make the top level of loudspeaker performance available at a fraction—less than half—of the former going cost. They are meant to be compared directly in every aspect of performance, including frequency response from the lowest to the highest frequencies of musical interest, to the most expensive and elaborate speakers available, and they sound clearly and dramatically better than many far more expensive systems.

Those are strong claims, but no stronger than the feelings expressed every day in letters from satisfied Advent customers. They help explain why Advent speakers, with relatively little advertising and fewer dealers than several other brands, have become best-sellers (the first became so before it was advertised nationally at all), and why people go out of their way to tell us how pleased they are with them.

For a reasonable, affordable amount of money, you can build as good a stereo system as you’re ever likely to want around either of them. That is why Advent dealers, chosen for their ability to understand and display what they are selling, are worth taking the time to seek out. And it is why Advent speakers, with no visible indication that anything really extraordinary is inside their simple cabinets, are worth listening to critically and thoroughly before you buy.

Nothing about either speaker is accidental. They are the result of eighteen years’ previous experience in making high-performance acoustic-suspension speakers, and the striking value they represent was made possible by what we have learned about taking the most simple and direct route to highest performance. Nothing audibly useful is missing, and nothing unnecessary for home listening is present.

The only basic difference in performance between them is that the original ($105-$125 depending on cabinet finish and the part of the country it’s shipped to) will play slightly louder in bigger rooms than The Smaller ($70-$75). Both have the same clarity and accuracy, bass response approached by few speakers of any price or size, and an octave-to-octave musical balance chosen to suit the widest range of recording techniques.

If you will send in the coupon, we will be happy to provide full information on both speakers (including their reviews), and a list of dealers where you can hear them. If you can also hear Advents at a friend’s house, you can get an idea of just how good they sound in a home, and of what your friend thinks of them and us.

We wouldn’t suggest you make sure to hear our speakers if we didn’t think you will find it worth your while.

To: Advent Corporation, 195 Albany Street, Cambridge, Massachusetts 02139
Please send me speaker information and a list of your dealers.

Name
Address
City State Zip

Advent Corporation, 195 Albany Street, Cambridge, Massachusetts 02139.
Last night, which was Saturday, I installed a quadraphonic record-playing setup in my apartment. It took about four hours and six screwdrivers (from force of habit I took out the Philips-head screwdriver too, but I didn't use it), two wire cutters, a pair of pliers, a staple gun, and gummed paper labels to identify the ends of some unconnected wires I was not going to use (in case the future should demand that I use them after all). In truth, a good part of the labor expended, and of the formidable assembly of tools, went into removing older equipment, and this deserves a few words of explanation.

The four-channel receiver I was about to install was more than twice the size of the two-channel receiver it was replacing—and in all the wrong ways. It was low and long and deep. The old receiver had been set upon a shelf (which it straddled by the four rubber feet of the cabinet. However, two completely new receivers had to be made, the two to the rear speakers, which, though positioned in anticipation of four channels a year ago, were not connected to anything and had functioned as mute end tables until now.

After an abortive attempt to draw the connecting wires upward to the molding on the wall, along the molding across the floor to the speakers, my wife and I settled on an alternate method, drawing them down again behind the bookcase on the sill, and then around the opposing bookcase and along the floor to the speakers.

We got as far as the bookcase when the wire ran out. With great aplomb, I went to my spare wire bag and came back with a short length of filthy but serviceable speaker wire, plus the remains of a roll of lamp cord. The speaker wire, which I spliced with twenty-year-old friction tape because the roll of modern plastic electrical tape has become the single most elusive object in our apartment, did for one connection. The lamp cord brought me to within two feet of the second speaker. Back to the record-playing equipment, where two feet of unused wire, carefully labeled for an unknown future, were snipped off to solve the problem. Mounting the new cartridge took no time at all. And so we were finished.

I freely admit to experiencing a thrill of excitement when turning on any newly installed piece of equipment and finding that it works as it is supposed to. I have never determined whether this springs from my inherent cynicism regarding both mechanical and electrical equipment, or from some deeply imbedded insecurity about my own abilities to put two wires together without shorting out Con Edison's principal generator. At any rate, the music (Benjamin Britten it was) poured out gloriously—from the two front speakers. Manipulating the controls as I might, the rear speakers remained as mute as in their end-table days.

Systematic research led eventually to the speaker fuses, and I discovered that the two for the rear speakers were blown—3AG two-ampere fuses. It was, as I said earlier, Saturday night. I mentally ran down the list (it was not a very long list) of who in my neighborhood might just happen to have a pair of 3AG (two-amp fuse) kicking around on a hot Saturday night in August, and quickly came to the conclusion that my best hopes rested in my own junk box of spare everythings. A search brought to light one five-amp fuse, a half-amp one, and a previously missing measuring device for the now displaced disc cutter. Sunday would bring no better.

I think my wife was more disappointed than I, but we both got over it quickly. The new cartridge sounded marvelous and the new receiver's two-channel amplification system loud; after all, replaced a dying unit whose left channel became the single most elusive object in our apartment, did for one connection. The lamp cord brought me to within two feet of the second speaker. Back to the record-playing equipment, where two feet of unused wire, carefully labeled for an unknown future, were snipped off to solve the problem. Mounting the new cartridge took no time at all. And so we were finished.

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I think my wife was more disappointed than I, but we both got over it quickly. The new cartridge sounded marvelous and the new receiver's two-channel amplification system loud; after all, replaced a dying unit whose left channel made occasional gasping sounds and had to be smartly rapped back into life every so often. The records went onto the turntable and we couldn't seem to get enough music: Brahms waltzes, Johnny Guarnieri's stride piano. Poulenc for two keyboards, Purcell, Britten again, forty-five minutes of London pub music and comedy routines (a marvelous record—London International SW 99436), Satie, Debussy and Ravel, Jacques Brel, Chopin, Joel Grey, and Prokofiev. We didn't (couldn't) play a quadraphonic record all night or the next day.

The new equipment did for me what, somehow, new equipment always does for me: it reminded me of my love of music and reawakened my hunger for great gobs of it—which I endeavored to satisfy. I suppose that's enough excitement for one weekend. Quadraphonics can wait—until tomorrow at least.
Before you buy just any high powered receiver

As an astute audiophile, you naturally want to compare specifications and prices on the better makes of equipment before committing yourself to a major purchase. If it's a high powered receiver you're after, we've simplified your selection by preparing a specification 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 top-of-the-line receivers.

If you're not convinced by specs alone, we further invite you to ask your Scott dealer for a listening test of the 477 Stereo Receiver played through 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/performance class.

We believe you'll find the Scott 477 AM-FM Stereo Receiver is your best choice.
The ADC-XLM "...in a class by itself."

That's the way Stereo Review described our XLM. High Fidelity headlined their review, "Superb new pickup from ADC" and went on to say, "...must be counted among the state of the art contenders." And Audio echoed them with, "The ADC-XLM appears to be state of the art."

With the critics so lavish in their praise of the XLM, there's hardly any necessity to add anything. Far better to let the experts continue to speak for us.

Frequency response The CBS STR-100 test record showed less than ±1.5dB variation up to 20,000Hz. Stereo Review response is within ±2dB over the entire range. Audio Frequency response is exceptionally flat. High Fidelity

Tracking This is the only cartridge we have seen that is really capable of tracking almost all stereo discs at 0.4 grams. Stereo Review The XLM went through the usual torture test at 0.4 grams (some top models require more than a gram). High Fidelity The XLM is capable of reproducing anything found on a phonograph record. Audio

Distortion Distortion readings...are almost without exception better than those for any other model we've tested. High Fidelity

The XLM has remarkably low distortion in comparison with others. Audio At 0.6 grams the distortion was low (under 1.5 percent). Stereo Review

Hum and noise The XLM could be instrumental in lowering the input noise from the first stage of a modern transistor amplifier. Audio The cartridge had very good shielding against induced hum. Stereo Review

Price This would be a very hard cartridge to surpass at any price. Stereo Review We found it impossible to attribute superior sound to costlier competing models. High Fidelity Priced as it is, it is a real bargain in cartridges. Audio

The Pritchard High Definition ADC-XLM $50.
• **SPEAKER IMPEDANCE:** Many people think of the impedance of a loudspeaker (conventionally specified as 4, 8, or 16 ohms) as a significant parameter somehow related to its frequency response. This is only partly correct. Certainly, the impedance characteristics of a loudspeaker driver, which can vary with frequency over a wide range, are meaningful and important to the design engineer. On the other hand, the impedance characteristics of a complete speaker system have little relationship to its acoustic performance.

The impedance \( Z \) of a loudspeaker is complex: it consists of resistance \( R \) and of reactance \( X \), which vary with audio-signal frequency. However, the effect of the speaker on the amplifier is related to its total impedance \( Z \). (For purposes of simplification, we will not distinguish between \( Z \) and \( R \) in the following discussion; engineers in our audience are asked to excuse the lack of rigor.)

Impedance \( Z \) expresses the relationship between the voltage \( E \) and current \( I \) in a circuit. The basic formulas are: 

\[
Z = \frac{E}{I}; \quad I = \frac{E}{Z}.
\]

The resistive component \( R \) (which is equal to \( Z \) in the absence of reactance) can be used to determine the power delivered to a load, as follows: 

\[
P_{\text{out}} = \frac{E^2}{R}, \quad \text{and/or} \quad P = I^2R.
\]

Most solid-state amplifiers are constant-voltage sources whose output voltage, given a steady input signal, is essentially independent of the load impedance \( Z \). The power delivered to the load is therefore inversely proportional to impedance: a 4-ohm speaker will draw twice as much power as an 8-ohm speaker, which in turn will draw twice the power of a 16-ohm speaker (it is understood that the audio-input signal to the amplifier remains constant).

In general, loudspeaker impedance varies with frequency, with a peak appearing at the bass-resonance frequency. In multi-speaker systems, there may be other impedance peaks at higher frequencies, or the impedance may rise or fall relatively smoothly with increase in frequency, or even remain fairly constant. Since the maximum impedance of a system may be several times its nominal rated impedance, and the minimum might be considerably less than the rated value, how does one assign a single impedance rating to a loudspeaker?

At one time, the rated speaker impedance was measured at 400 Hz, where many speakers reached their minimum impedance value. Later, it became customary to rate the speaker in terms of the lowest impedance measured immediately above the bass resonance (this often occurred in the 150- to 200-Hz range). Other speakers carry an arbitrary "average" impedance rating, a figure falling somewhere between the minimum and maximum occurring within their operating range.

For most audio hobbyists, speaker impedance is of secondary importance. It has no relationship to quality, efficiency, size, price, or sound characteristics. The output voltage, distortion, and frequency response are also unaffected by normal speaker impedance variations. However, since most amplifiers will deliver more power to 4-ohm loads than to higher load impedances, it is not uncommon for low-efficiency speakers to be designed with a 4-ohm impedance. (Incidentally, even though a 4-ohm speaker will draw twice the power of an 8-ohm speaker at any given amplifier output-voltage level, the maximum available power output of most amplifiers into 4 ohms is only about 40 to 50 per cent higher than their 8-ohm ratings, because of current-handling limitations in the output transistors.)

Practically speaking, the only respect in which speaker impedance concerns the user directly is in its effect on the amplifier. As its impedance decreases, the speaker draws more current from the output transistors. Protective circuits or fuses will shut down the amplifier when excessive current is drawn. Almost all amplifiers can operate safely with 4-ohm loads. And though some are designed for loads as small as 2 or 3 ohms, only a handful will operate properly with smaller loads without tripping their protective systems, generating excessive distortion, or even damaging their output transistors.

Since almost all amplifiers and receivers are designed to drive two—or sometimes three—sets of speakers simultaneously, the load may be as low as one-half to one-third of the speaker impedance, assuming that all the speakers are identical. (For three speakers with impedances \( A \), \( B \), and \( C \) connected in parallel, \( Z \) is computed as follows: 

\[
1/Z = 1/A + 1/B + 1/C = 1/Z.
\]

As mentioned above, many speakers have actual minimum impedances that are considerably lower than their nominal impedance ratings, which can lead to difficulties when driving two or three sets of speakers connected to the same amplifier terminals.

The accompanying figure shows the impedance characteristics of two popular speaker systems. It can be seen that their average, maximum, and minimum impedances are quite similar, yet speaker \( A \) is rated at 4 ohms and speaker \( B \) (from a different manufacturer) is rated...
and minimum impedance between 20 and 20,000 Hz. And we heartily endorse the policy of those speaker manufacturers who specify the minimum impedance of their products within the audio-frequency range.

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**EQUIPMENT TEST REPORTS**

By Hirsch-Houck Laboratories

Sony STR-7055 AM/FM Receiver

- **Externally**, Sony's new STR-7055 AM/FM stereo receiver resembles other Sony components, with a tastefully styled satin-finish panel and knobs. It incorporates a very clean, conservatively rated medium-power amplifier with considerable control versatility. The large dial cut-out, framing the green-lit scales and meter face, is flanked by two large knobs for tuning and volume adjustment. The balance control, concentric with the volume knob, is operated by a small lever below the knob. The FM dial scale has linear calibrations, with a red stereo indication appearing at its right during stereo reception. The tuning meter is a zero-center indicator for FM and shows relative signal strength for AM. Three pairs of speakers can be connected and activated (singly or in two combinations of two pairs) by a selector knob which also has an OFF position for headphone listening via a front-panel jack. The separate bass and treble tone controls for the two channels are concentric, with slip-clutch knobs. The high- and low-cut filters are operated by a single knob, which can connect either filter, both, or neither.

The operating modes include stereo with normal or reversed-channel position, and either input channel or their sum (mono) through both speakers. In the latter mode, \((L + R)\), the FM multiplex circuits are also shut off. The function control selects PHONO, FM, AM, or AUX signal sources and provides two tape-copiering positions as well for use in copying from either of two tape recorders to the other. In addition, there are two separate TAPE MONITOR lever switches which permit playback or monitoring from either recorder while recording or copying tapes.

The various input and output jacks, plus an AM ferrite-rod antenna, are in the rear of the receiver. There is also a front-panel AUX phone jack, which replaces the rear AUX inputs when a plug is inserted. The input and output jacks for one of the tape recorders are paralleled by a DIN connector. The preamplifier outputs and power amplifier inputs are brought out to separate jacks which are normally joined by a slide switch. The speaker connections are screw terminals, closely spaced but with sufficient insulation to make accidental short circuits unlikely. The single a.c. outlet is unswitched. The Sony STR-7055 has an FET r.f. amplifier and mixer in its FM "front end." The i.f. amplifier uses sev-
...its 'fairy godmother' smokes cigars & wears a beard.

If you're a regular reader of loudspeaker technical reviews, you may have noted this: all of the best acoustic suspension systems are about of a size. And their response is quite similar at the very low end, extending to about 40 Hz with minor variations. Some go somewhat lower but at considerable cost in efficiency, demanding massive amplifier power if high level reproduction is to be attempted.

But what if you could abandon the security and simplicity of acoustic suspension design, and wave a 'magic wand' that would let you extend bass response another 1/2-octave, or alternatively to reduce the enclosure to 1/3 the size, or increase the efficiency say 4 or 5 dB? Or perhaps your fairy godmother would let you select a portion of each of these virtues. Good? Great!

That's just what we've done with Interface:A. Compared to the very fine acoustic suspension systems, we have a markedly smaller enclosure, about 2-3 dB greater efficiency (effectively increasing the useful power of any given amplifier) and response that is down just 3 dB at 32 Hz. Of course there was no magic wand. In fact there is little that is esoteric or speculative about our design. And there's no secret either.

Interface:A is not a sealed acoustic suspension system. Rather it can be classed as a vented system. But to tune our system to 32 Hz we wanted a vent 10" in diameter and 20' long. Unfortunately there is no way to fit a 20' tube into a system just 14" x 22" x 7-3/4" deep. (Which is perhaps why nobody has built one like this to date!)

So we built a device that acts in every way like a 20' tube. We call it a vent substitute. It looks something like a 12" speaker, but has no voice coil or magnet. It weighs 400 grams, the same as the air in the 20' tube.

With the help of this vent substitute, and a modest 6 dB rise from our equalizer, we achieved our design goal for extended bass response. But that's not nearly enough. It is equally essential that total acoustic power output at all frequencies be uniform.

The result is a new system that surpasses the best of the past. And offers other benefits we haven't even hinted at. No magic. Just good, solid engineering, and more than a little creativity. You can read all about it in our literature. But you will be most impressed when you hear Interface:A. Now at selected dealers. You can leave your magic wand at home.
eral transistors and an IC, with four ceramic-filter sections for selectivity. A single IC performs all the multiplex-demodulator functions, and another contains all the active circuits for the AM tuner. The audio section has direct-coupled complementary-symmetry output stages and preamplifiers consisting principally of two IC's (one for the phono preamplifiers, one for the tone-control stages). Only four individual transistors are used in the preamplifier in addition to the IC's.

- **Laboratory Measurements.** The FM sensitivity (IHF) measured 2.1 microvolts. A 50-dB signal-to-noise (S/N) ratio was reached at about 5 microvolts in mono and 30 microvolts in stereo. Distortion was slightly less than 0.3 per cent in mono and about 0.8 per cent in stereo. The ultimate SN was 72 dB in mono and 61 dB in stereo. The FM frequency response was +0.5, -2.5 dB from 30 to 15,000 Hz. Stereo channel separation was better than 20 dB from 30 to 7,000 Hz, reaching a maximum of 38 dB at 400 Hz and falling to 14 dB at 15,000 Hz.

The FM capture ratio was a good 1.4 dB for a 1,000-microvolt signal, and 5.8 dB at 10 microvolts. The other FM tuner characteristics were also very good, including 56 dB AM rejection, 76 dB image rejection, 57 dB suppression of the 19-kHz pilot carrier, and 60 dB alternate-channel selectivity. The muting threshold was 9 microvolts, and the automatic stereo-switching threshold was 6 microvolts. The AM tuner had relatively low sensitivity (adequate for our suburban location), with very little interstation noise and a frequency response that was down 6 dB at 140 and 4,000 Hz.

The audio amplifiers of the STR-7055 delivered 51.5 watts per channel into 8 ohms at the clipping point, with both channels driven by a 1,000-Hz signal. Into 4 ohms the power was 72.5 watts per channel, and into 16 ohms it was 33.2 watts per channel. Using Sony's rated 35 watts per channel as a reference full-power level, harmonic distortion was under 0.1 per cent from 30 to 20,000 Hz at full power or less, rising to the rated 0.2 per cent at 20 Hz. Typically, distortion was less than 0.05 per cent.

With a 1,000-Hz test signal, harmonic distortion reached its minimum of 0.015 per cent between 30 and 50 watts output, increasing to 0.07 per cent at 1 watt. At lower levels the distortion measurement included inaudible "noise." Intermodulation (IM) distortion was about 0.6 per cent at extremely low power levels (about 1 milliwatt), but at any audible useful output it was below 0.1 per cent. The AUX inputs required 68 millivolts for a 10-watt output, with a 69-dB S/N.

- **Comment.** Audibly and electrically, the Sony STR-7055 performed flawlessly in all our tests and in subsequent use. Our one minor criticism concerns the way the dial scales and meter are recessed into the receiver's front panel. There is no problem when the receiver is at eye level, but when it is on a table, one must bend or kneel to tune it.

The STR-7055 has nondefeatable automatic frequency control (AFC), mild in its action but strong enough to snap directly from one station to the next in our populous area. This means the tuning meter's pointer never gets very far from the center before locking on to the next channel. If the AFC could be switched off, the meter would certainly function as an important aid, but as it is, one can generally ignore it and simply tune until a station is heard. Most people will probably find this characteristic a "plus," since it is almost impossible to mis-tune this receiver.

The overall performance of the Sony STR-7055 left nothing to be desired, and our positive reaction to the receiver was enhanced by the smoothness of its controls, its noncritical tuning, and its noise-free FM muting system.

Circle 105 on reader service card.

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Pioneer TX-9100 AM/FM Tuner

- Pioneer's new "top of the line" tuner, the TX-9100, is designed to be a companion to their Model SA-9100 integrated amplifier (reported on in September). The matching TX-9100 incorporates many of the latest semiconductor devices—especially integrated circuits—in combination with several unusual circuit features and construction techniques. Its performance specifications, which reflect the present state of the art in FM tuners, in some cases transcend those of any previously available tuners.

The two MOSFET r.f. stages in the FM "front end" use four tuned circuits to achieve extraordinary rejection of images and other spurious responses. The local oscillator is electrically isolated from the mixer by an emitter-follower buffer stage. In the i.f. amplifier, four IC stages and four ceramic filters supply high gain, selectivity, and limiting, and are followed by a Foster-Seeley discriminator.

(Continued on page 32)
THE LAFAYETTE LR-4000

Don't just take our words for it, take someone else's...

"...Lafayette's wave-matching logic circuit... represents the state of the SQ art..."
—Modern Hi-Fi & Stereo Guide, Feb. '73

"The LR-4000 epitomizes the art of matrixed 4-channel sound."
"Enough power there to give you all the decibels of hi-fi sound you could conceivably crave."
—MARTIN CLIFFORD, FM Guide, Nov. '72 & March '73

"...the decoding is essentially the ultimate that can be expected of a matrix system limited to a 20- to 20,000-Hz bandwidth... The listening effect is almost that of discrete surround-sound."
—HERBERT FRIEDMAN, Hi-Fi Stereo Buyers' Guide, Spring '73

"It causes [SQ encoded] discs to sound as real four-channel should... This unit, in fact, takes the SQ system as far as it can go—and proves that it is capable of good four-channel."
—Stereo & Hi-Fi Times, Spring '73

"...It is evident that the designers of the LR-4000 have done a remarkable job of producing the "most" SQ receiver for the money we have yet seen... We were impressed also with its human-engineering aspects: the controls are laid out in a simple and functional manner, without sacrifice of flexibility. Its quadraphonic performance... was outstanding, as was its overall sound quality and general ease of operation. All in all, the LR-4000 is a most impressive achievement—especially so considering its price [569.95]."
—Stereo Review, April '73

CBS, the developer of the SQ system, uses the LR-4000 when monitoring 4-channel program material. As do thousands of people to whom sound really matters. But, listen to one for yourself. Then you won't have to take anybody's word for it!

Lafayette: If sound matters to you, listen to us.

Lafayette Radio Electronics P.O. Box 10, Dept 11113, Syosset, N.Y. 11791

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FREE The World's Largest Consumer Electronics Catalog
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CIRCLE NO. 35 ON READER SERVICE CARD

NOVEMBER 1973
The Pioneer TX-9100 is supplied with a wooden walnut-finished cabinet. It is approximately 17 inches wide, 5½ inches high, and 13½ inches deep; it weighs about 19½ pounds. Price: $299.95.

- **Laboratory Measurements.** The FM 1HF sensitivity was 1.6 microvolts. A 50-dB signal-to-noise ratio was measured at a 1.75-microvolt input in mono and at 22 microvolts in stereo. The FM distortion was 0.21 per cent in mono and 0.3 per cent in stereo. The ultimate quieting was about 72 to 73 dB, both in mono and stereo. The maximum audio output level from the variable jacks was 2.5 volts, and the fixed output was 0.8 volt. The headphone output varied from 0.25 volt with 8-ohm loads to 1.87 volts into 600 ohms. The FM frequency response was within +0.2 dB, −0.9 dB from 30 to 15,000 Hz. The 19,000-Hz pilot carrier in the outputs was 71.5 dB below 100 per cent modulation. Stereo channel separation was exceptional, measuring about 45 to 50 dB from 30 to 4,000 Hz and falling to 32.5 dB at 15,000 Hz. Capture ratio was 1.7 dB at 1,000 microvolts and 1.8 dB at 10 microvolts. The AM rejection measured 57 dB—one of the best figures we have found on an FM tuner. The output of our signal generator was not sufficient to measure the image rejection (few laboratory generators can make this measurement over the 110-dB rated range of this tuner). We could only determine that the image rejection exceeded 106 dB, and that alternate-channel selectivity exceeded 103 dB. The FM dial was calibrated at 200-kHz intervals, and the maximum observed error of 100 kHz made it possible to positively correlate the frequency of a received signal with the dial reading. The two muting thresholds were 6 and 24 microvolts. The automatic stereo switching threshold was between 4 and 5 microvolts. AM frequency response was within ±1 dB from 40 to 2,200 Hz, and was down 6 dB at 3,500 Hz.

- **Comment.** The quality limitations of FM broadcasts in our area—and of the available program sources—are such that we were unable to hear any difference in sound quality between the TX-9100 and several other fine tuners. By the same token, nothing else we have heard sounded any better than the TX-9100. In our view, what distinguishes this tuner much more than its audible quality is that its overall “feel” and operating characteristics are completely compatible with its performance.

The muting system monitors the signal level and the discriminator output voltage, and un-mutes the audio only when the signal is strong enough for good reception and is tuned in correctly. The actual muting is by means of a relay shorting the audio signal, but although it is completely positive in its action, there is not a trace of a click or other transient in its operation. The program is either heard properly or not at all.

The provision of a really useful headphone output opens up the possibility of using the TX-9100 alone, with no audio amplifier, as a very fine radio for listening through phones. The AM tuner also has excellent quality, in spite of its limited frequency response, and it surprised us with its total freedom from the interstation noises and whistles that plague almost all the AM tuners we have used. We were unable to evaluate the pulse-noise suppressor since we have never had a problem with impulse noise. All we can say is that it has no audible or measurable effect on tuner operation.

The Pioneer TX-9100 is undoubtedly one of the first of a new generation of tuners, and it is perhaps unfair to compare it with older designs. The separate performance improvements, while impressive in themselves, would probably not be enough to set this tuner distinctly apart from some of its predecessors and competitors. Taken in toto, however, they add up to a superb instrument which, on test instruments, unequivocally outperforms anything we have tested up to this time.

Circle 106 on reader service card

(Continued on page 38)
anything II could do III can do better!

Several years ago, we decided that our next challenge would be to go beyond the best there was. Our computers told us we had taken the existing cartridge structure and stylus assembly of the V-15 Type II Improved as far as we could, and that hereafter, any improvement in one performance parameter would be at the expense of performance in some other parameter.

Therefore, over the past several years, a wholly new laminated cartridge structure has been developed, as was an entirely new stylus assembly with a 25% reduction in effective stylus mass! These developments have resulted in optimum trackability at light tracking forces (¼ - 1¼ grams), a truly flat, unaccented frequency response, and more extended dynamic range than was possible even with the Type II Improved, without sacrificing output level!

If you like its sound today, you will like it even more as time goes on. In fact, to go back to any other cartridge after living with the Type III for a short while is simply unthinkable, so notable is its neutral, uncolored sound. You must hear it. $72.50.

INTRODUCING THE NEW

SHURE V-15 TYPE III
Super-Track “Plus” Phono Cartridge

Shure Brothers Inc. • 222 Hartrey Ave. • Evanston, Ill. 60204
In Canada: A. C. Simmonds & Sons Ltd.

CIRCLE NO. 65 ON READER SERVICE CARD

NOVEMBER 1973
The Heathkit AR-1500 Stereo Receiver — you'll hardly believe your ears

One of the most universally praised AM/FM receivers on the market — and in kit-form! That way we can give you the kind of circuitry a knowledgeable engineer would design for himself for no more than you would pay for someone else's ordinary receiver.

Conservatively rated, the AR-1500 puts out 180 watts, 90 per channel, into 8 ohms, with less than 0.2% intermod distortion, less than 0.25% harmonic distortion. Two computer-designed five-pole LC filters and the improved 4-gang 6-tuned front end combine for an FM selectivity better than 90 db, 1.8 uV sensitivity. And here are some things the specs won't show you. There are outputs for two separate speaker systems, two sets of headphones, biampification, and oscilloscope monitoring of FM. Standard inputs — all with individual level controls. Electronically monitored overload circuitry. There are even two dual-gate MOSFETS, one J-FET and a 12-pole LC filter in the AM section for superior sound there!

But don't let the astounding performance throw you. You can build yourself an AR-1500 even if you have never built an electronic kit before. Parts are packaged in convenient sub-packs, so you assemble one circuit board at a time without confusion. And there's no second guessing the Heathkit Assembly Manual. Every step is explained and illustrated. Plus there are extensive charts showing voltage and resistance measurements in key circuits as they should appear on the built-in test meter. You fully check-out your work as you go! Of course, all this special circuitry stays with the receiver so you can perform service checks over the life of the component.

The AR-1500 is simply the best receiver we have ever offered. And at the low kit-form price, it's an incredible value for the audiophile who demands excellence. Build it, listen to it, and you'll believe it.

Kit AR-1500, less cabinet, 53 lbs., mailable . . . . 379.95*  
ARA-1500-1, walnut cabinet, 8 lbs., mailable . . . . 24.95*

Attention: U.S. Military Personnel in W. Germany: All Heathkit products and catalogs are available at your nearest Audio Club.

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**SPECIFICATIONS**

**AR-1500 SPECIFICATIONS — TUNER — FM SECTION (Monophonic):** Tuning Range: 88 to 108 MHz, Intermediate Frequency (IF): 10.7 MHz, Frequency Response: ±1 db, 20 to 15,000 Hz, Antenna: Balanced input for external 300 ohm antenna, 75 ohm antenna input may be used between either FM antenna terminal and ground. Sensitivity: 1.8 uV * Volume Sensitivity: Below measurable level. Selectivity: 90 db. * Image Rejection: 100 db. * IF Rejection: 100 db. * Capture Ratio: 1.5 db. * AM Suppression: 50 db. * Harmonic Distortion: 0.5% or less. Intermediate Distortion: 0.1% or less. Hum and Noise: 60 db. * Spurious Rejection: 100 db. * FM SECTION (Stereophonic): Channel Separation: 40 db or greater at midfrequencies; 35 db at 50 Hz; 25 db at 10 kHz; 20 db at 15 kHz. Frequency Response: ±1 db from 20 to 15,000 Hz, Harmonic Distortion: 0.5% at 1000 Hz with 100% modulation. 19 kHz and 28 kHz Suppression: 55 db or greater. SCA Suppression: 55 db. AM SECTION: Tuning Range: 535 to 1600 kHz, Intermediate Frequency (IF): 455 kHz. Sensitivity: 50 uV with external input, 300 uV per meter with radiated input. Selectivity: 20 db at 10 kHz; 60 db at 20 kHz, AM Antenna: Built-in rod type; connections for external antenna and ground on rear chassis apron. Image Rejection: 70 db at 600 Hz; 50 db at 1400 Hz, IF Rejection: 70 db at 1000 Hz. Harmonic Distortion: Less than 2%. * Hum and Noise: 40 db. * AMPLIFIER — Dynamic Power Output per Channel (Music Power Rating): 90 watts (8 ohm load); 120 watts (4 ohm load). Continuous Power Output per Channel: 60 watts (8 ohm load); 100 watts (4 ohm load); 60 watts (16 ohm load). Power Bandwidth for Constant 25% Total Harmonic Distortion: Less than 8 Hz to greater than 30 kHz. * Frequency Response (1 watt level): — 1 db, 7 Hz to 80 kHz; — 3 db, less than 5 Hz to 120 kHz, Harmonic Distortion: Less than 0.25% for 20 Hz to 20 kHz at 60 watts output, less than 0.1% at 1000 Hz with 1 watt output. Intermodulation Distortion: Less than 0.1% with 60 watts output, using 60 and 6,000 Hz mixed 4:1; less than 0.1% at 1 watt output. Damping Factor: Greater than 60. Input Sensitivity: Phono, 1.8 millivolts; Tape, 140 millivolts; Aux, 140 millivolts. Tape Mono, 140 millivolts. Input Overload: Phono, 145 millivolts, Tape, greater than 10 volts; Aux, greater than 10 volts. Tape Mono, greater than 10 volts. Hum & Noise: Phono (10 millivolt reference), — 55 db. Volume control in minimum position. — 50 db referred to rated output. Channel Separation: Phono, 55 db; Tape and Aux, 55 db or greater. Output Impedance (each channel): 4 ohms through 16 ohms. Tape Output Impedance: Approximately 50 ohms. Input Impedance: Phono, 49 k ohm (RIAA Equalized); Aux, Tape and Tape Mono, 100 k ohms. Tape Output: Tape or Aux inputs, 1 volt output with 0.2 volt input. GENERAL — Accessory AC Outlet Sockets: Two. One switched and one unswitched (240 volts maximum). Power Requirements: 120 or 240 volts 50/60 Hz AC; 40 watts idling (zero output) and 356 watts at full output with no load on accessory outlets. Dimensions: Overall — 18 1/2" H x 5 1/8" W x 13 1/2" D.

*Rated IHF (Institute of High Fidelity) Standards.  
**Rated RIAA (Record Industry Association of America).
can now be seen with your own eyes

The Heathkit AD-1013 Audio-Scope — seeing is believing

A professional-grade oscilloscope that visually monitors stereo and 4-channel discrete and matrixed systems. Now you actually can see channel separation, phasing, relative signal strengths, multipath reception, center tuning of receivers and tuners, and more. And in easy-to-build kit form you save virtually hundreds of dollars over what you would normally pay for an instrument this reliable and versatile.

Only the Heathkit Audio-Scope gives you triggered sweep for a stable, jitter-free trace with constant re-adjustment. Inputs are provided on the rear panel of the Audio-Scope for Left-Front, Left-Back, Right-Front, Right-Back, and Multipath. Any of these inputs can be switched and observed on the cathode ray screen, independently or in combination.

In addition, a front panel input is provided for observing any external source, permitting you to use the AD-1013 as a conventional oscilloscope for checking out malfunctions in various stages of your tape equipment, receiver, amplifier, tuner, turntable, etc. A built-in independent 20 Hz to 20 kHz low distortion audio oscillator provides a convenient means of setting up and checking your 4-channel or 2-channel stereo system. Front panel controls are provided for frequency selection of the audio oscillator as well as controlling the amplitude of the generated signal. Outputs from the audio oscillator are located on both front and rear panels. Output voltage will not vary with frequency change.

Cabinet-matched to the Heathkit AR-1500 Receiver, for obvious reasons, the AD-1013 nevertheless looks great and works great with any receiver or tuner having multiplex outputs. You can build the Heathkit Audio-Scope even if you have never built a kit before. Most components mount on one large, roomy circuit board — and point-to-point wiring is held to a minimum. At this low kit price, it's well worth your time. Because when it comes to an unbelievable audio system, one picture is worth a thousand words.

Kit AD-1013, less cabinet, 19 lbs., mailable .......... 199.95
ARA-1500-1, walnut cabinet, 8 lbs. ............. 24.95

See them all at your Heathkit Electronic Center, or fill out coupon below.

HEATHKIT ELECTRONIC CENTERS — ARIZ.: Phoenix; CALIF.: Anaheim, El Centro, Los Angeles, Pomona, Redwood City, San Diego (La Mesa), Woodward Hills; COLO.: Denver; CONN.: Hartford (Avon); FLA.: Miami (Maitland); GA.: Atlanta; ILL.: Chicago, Downers Grove, Lake Geneva; IND.: Indianapolis; KANSAS: Kansas City (Mission), Topeka; KENTUCKY: Louisville; MASS.: Boston (Wellesley); MICH.: Detroit; MINN.: Minneapolis (Hopkins); MONT.: St. Louis; N.J.: Fair Lawn; N.Y.: Buffalo (Amherst), New York City, Jericho, Rockville; OHIO: Cincinnati (Woodlawn), Cleveland, Columbus, Dayton, Sidney, Youngstown; PA.: Philadelphia, Pittsburgh; S.C.: Columbia; SD.: Sioux Falls; TENN.: Nashville; TEXAS: Dallas, Houston; WASH.: Seattle, Bellevue, Spokane.
Kenwood KA-8004 Integrated Stereo Amplifier

Among the latest additions to the Kenwood line of integrated stereo amplifiers is the Model KA-8004—a de luxe, highly flexible, and powerful unit rated conservatively at 60 watts per channel from 20 to 20,000 Hz with both channels driven into 8-ohm loads. The distortion, either harmonic or intermodulation (IM), is rated at less than 0.4 per cent at full power, and it falls to less than 0.05 per cent at half power.

The KA-8004 has the extensive input facilities we have come to expect from Kenwood. It has two magnetic phono cartridge inputs, three high-level inputs, paired microphone inputs, and dubbing/monitoring facilities for two tape recorders. The front-panel rotary TAPE switch, in addition to permitting playback from either recorder or from another program source, can cross-connect the two machines for dubbing from either one to the other. In addition to the TAPE and INPUT selectors, there are knobs for bass and treble tone controls and for MODE (stereo, reversed stereo, either channel, or their sum). A large VOLUME knob is surrounded by a ring for adjusting channel balance.

Like many of today’s top-of-the-line amplifiers, the Kenwood KA-8004 offers more than the conventional bass and treble tone-control arrangement. Each of the controls is a step switch with five positions of boost and five of cut, plus a center OFF setting that bypasses the signal around the tone-control circuits. Above the tone-control knobs are five lever switches. Two of them shift the operating points of the tone controls, providing a choice of 200 or 400 Hz for the bass control and 3,000 or 6,000 Hz for the treble control. The other three switches operate the filters: a 6-dB-per-octave high-cut filter above 7,000 Hz and two 18-dB-per-octave low-cut filters below 40 or 20 Hz. Two more similar switches control the loudness compensation and the audio muting (a 20-dB volume reduction for temporary listening interruptions). The KA-8004 has three pairs of speaker outputs controlled by individual pushbuttons. Any or all of the speakers can be operated simultaneously, although a too-low load impedance (such as when operating two or three pairs of 4-ohm speakers) will trip the amplifier’s protective circuits and interrupt the output until a proper load is restored.

The KA-8004 is somewhat larger (especially in height) than many other amplifiers of comparable ratings. It is about 17 1/4 inches wide, 6 inches high, 11 3/4 inches deep, and weighs about 28 1/2 pounds. Along the lower portion of its front panel are the pushbutton POWER switch, a stereo headphone jack, and two standard 1/4-inch microphone jacks. The border strip separating the light gold rear of the amplifier are the various input jacks, including the phono and microphone inputs before the RIAA equalization was within 1 1/4, -0.5 dB from 30 to 15,000 Hz. The microphone-input frequency response was flat within 1 dB from 20 to 8,000 Hz, and was down 3 dB at 15,000 Hz.

The price of the Kenwood KA-8004 is $389.95, which includes walnut end pieces.

Laboratory Measurements. With both channels driven to the clipping point, with a 1,000-Hz test signal, the Kenwood KA-8004 delivered 72 watts per channel to 8-ohm loads. The 4-ohm power was 100 watts per channel, and into 16 ohms it was 45.5 watts per channel. At very low power (under 1 watt) the harmonic distortion was masked by inaudible "noise," but over much of the power range from 1 watt to more than 70 watts the distortion was typically about 0.05 per cent, and always less than 0.1 per cent. The IM distortion was about 0.1 per cent from 0.1 to 70 watts. At extremely low levels it rose slowly, to an insignificant 0.65 per cent at 1.5 milliwatts. At the rated 60 watts per channel, the KA-8004 had about 0.06 per cent harmonic distortion over most of the audio-frequency range, reaching 0.16 per cent at 20,000 Hz and 0.13 per cent at 20 Hz. At lower power outputs the distortion was less, reading typically between 0.03 and 0.05 per cent.

The AUX inputs required 55 millivolts for a 10-watt output with a 78-db signal-to-noise ratio. About 1 millivolt was needed at the phono and microphone inputs, with signal-to-noise ratios of 73.7 and 60 dB, respectively. The overload margins provided were excellent: 260 to 280 millivolts could be accommodated at the phono and microphone inputs before waveform clipping occurred.

The RIAA equalization was within 1 1/4, -0.5 dB from 30 to 15,000 Hz. The microphone-input frequency response was flat within 1 dB from 20 to 8,000 Hz, and was down 3 dB at 15,000 Hz. The loudness-compensation circuits produced a moderate boost at low and high frequencies. The high-cut filter response (Continued on page 40)
Can you spot the Camel Filters smoker?

Everybody aboard this jet plane has a gimmick... almost everybody. Pick the one who doesn't.

1. Nope. He's Hugo Slavia, impoverished secret agent. Gimmick: Sells "hot" watches as a sideline. His cigarettes smoke even hotter.


3. No. Ralph Knoshow (not pictured). Transistor radio salesman. Resigned when given new territory... Japan. His cigarette's taste is missing too.

4. Right. Wherever he goes, he leaves the far-out gimmicks to others. Likes his cigarette no-nonsense too. Camel Filters. Honest. Good tasting.


7. Helen Back, stranger. Also black belt karate expert.

Camel Filters. They're not for everybody (but they could be for you).


20 mg. "tar", 1.3 mg. nicotine av. per cigarette, FTC Report FEB.'73.
A rear-panel view showing the clearly labeled, logically organized, and quite comprehensive input and output facilities of the KA-8004.

was down 3 dB at 7,000 Hz, and about 10 dB at 20,000 Hz. The low-cut filters had a rather unusual characteristic, cutting off sharply at approximately their rated frequencies, but also introducing a gradual rolloff that began at about 250 Hz. On the other hand, the tone controls were truly excellent. With the "normal" turnover frequencies of 400 and 3,000 Hz, their characteristics were similar to some of the better tone-control circuits we have encountered. There was little effect on mid-frequencies, but a considerable control range (about ±15 dB) at the extremes. Switching to the 200- and 6,000-Hz turnover frequencies resulted in an essentially flat response between those two points, even when as much as 10 to 15 dB of boost or cut was applied at 20 or 20,000 Hz. Each control operates in 2-dB steps, making it possible to return accurately to a previously determined setting for specific discs or tapes.

**Comment.** In many of its control features the Kenwood KA-8004 resembles the previous top-of-the-line Kenwood amplifiers. We found nothing significant to criticize in its design, and we encountered no unhappy surprises in our listening tests. As any fine amplifier should be, it was completely self-effacing, sonically adding or subtracting nothing of its own to the program unless called upon to do so. Its power-output capabilities are, of course, more than adequate for most requirements, and the flexibility of its controls—especially in tape monitoring and speaker switching—make it particularly well suited to large and elaborate installations.

Circle 107 on reader service card

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**Ohm F Speaker System**

- We have all heard the story (probably apocryphal) about the aerodynamic experts who analyzed the wing structure of the bumble bee and concluded that it simply could not fly. Fortunately, as the story goes, the bumble bee is ignorant of aerodynamic theory and continues to fly without apparent difficulty. Like the bumble bee, the new Ohm F loudspeaker would seem to be an impossibility according to conventional speaker theory. A single driver, with an unusually large cone whose shape suggests a dunce cap, is mounted facing downward into a sealed enclosure filled with sound-absorbing material. A 3-inch voice coil, edge-wound with anodized aluminum wire, drives the cone structure, which is formed of 1-mil titanium foil at the top, 3-mil aluminum foil in the middle, and paper at the bottom. The three materials are bonded rigidly together. The cone is 12 inches in diameter at its widest point and is about 12½ inches high.

Although one might conceive of such a cone assembly serving as a woofer, one would not expect it to perform with equal effectiveness over the full audio-frequency range—and beyond. However, it does just that. The explanation, according to Ohm Acoustics, is that the cone has not been designed to function as a "piston" (as virtually all other cones are), but should be viewed as a terminated acoustic-transmission line (see the accompanying box for a detailed discussion). It is based on a design patented by the late Lincoln Walsh, who will be remembered by old-time audiophiles for his Brook amplifiers of the late Forties.

The Ohm F has a nominal voice-coil impedance of 3 to 4 ohms. Its efficiency is somewhat lower than that of the better acoustic-suspension speakers, and an amplifier rated at 50 watts or more per channel is recommended. (Up to 300 watts can be handled for brief intervals without damage to the speaker, which is protected by a fast-acting fuse.) The system has a rated frequency response of 32 to 20,000 Hz ±3.5 dB, subject to some variation according to room characteristics and measurement techniques. It is omnidirectional in the horizontal plane, and the response is claimed to be down only 3 dB at 20,000 Hz at an angle 40 degrees off its horizontal axis. The overall size of the Ohm F is 44 inches high and 17¾ inches square at the base, tapering to 13 inches square at the top. The base is finished in oiled walnut, and the system weighs about 75 pounds. Price: $400.

- **Laboratory Measurements.** Our standard live-room integrated frequency response measurement of the Ohm F produced one of the flattest extended curves we have ever seen from a loudspeaker. Especially outstanding was the absence of any low-frequency or mid-range irregularities; the response was ±2 dB from 40 to 7,500 Hz, and it rolled off smoothly at lower frequencies. At the higher frequencies, the inevitable irregularities due to room reflections and microphone effects appeared, with a moderate peak reaching a maximum at 15,000 Hz, and a return to the mid-range frequency-response level at 20,000 Hz.

The bass harmonic distortion at a 10-watt drive level was 4 per cent at 40 Hz, 10 per cent at 29 Hz, and 16 per cent at 25 Hz. At frequencies above 50 Hz it was 3 per cent or less. At a 90-dB sound-pressure level (SPL) it was quite similar, reaching 14 per cent harmonic distortion at 30 Hz. The electrical impedance was 8 ohms, with a 50-watt drive level at 20 Hz.

(Continued on page 42)
The Hi-Fi Eye.
The only foolproof way to control 4-channel phasing, balance and signal levels.

Using your ears to check balance, phasing and signal level relationships is difficult in stereo. But it's virtually impossible in 4-channel.

With the Technics SH-3433 audio scope, it's easy to see and control those tricky proportions as well as other equally hard to detect phenomena, such as FM multipath.

The Hi-Fi Eye accepts both low and high level inputs. So it can be connected to a tape deck, preamp, decoder or directly to the speaker terminals of your amplifier. And a front-mounted switch allows instant selection of the desired signal.

There are a wide variety of visual displays available in either an acoustic field dimension or a waveform presentation. And the waveforms of each channel may be individually observed. The mode switch selects the desired acoustic pattern: discrete (2-channel or 4-channel) and matrix. And the matrix position accommodates any of the popular methods.

There are also front panel controls for all the necessary scope-type adjustments such as focus, gain, brightness, balance and position.

There is only one way to fully appreciate how precisely the SH-3433 reveals the subtleties and complexities of 4-channel. And that is to see it in operation. Eye to Eye.

The concept is simple. The execution is precise. The performance is outstanding. The name is Technics.

200 PARK AVE., NEW YORK, N.Y. 10017
FOR YOUR NEAREST AUTHORIZED TECHNICS DEALER, CALL TOLL FREE 800 447-4700. IN ILLINOIS, 800 322-4400.

Technics
by Panasonic
just under 4 ohms in the mid-range, increasing to about 5 ohms at frequencies above 2,000 Hz and reaching a maximum of 9 ohms at the system resonance of 38 Hz. The efficiency, as noted, was low, with 18 watts needed to produce a 90-dB SPL in the mid-range at a distance of 1 meter.

One of the fascinating aspects of testing the Ohm F was verifying the claimed phase coherence of its cylindrical radiation pattern. Ohm literature shows a clearly identifiable, if not perfect, square-wave response from the acoustical output of the system as an indication of the system's phase accuracy over a wide range of frequencies. We verified this in our tests, and also tried the same procedure on several other fine speakers we had on hand. Only the Ohm F was able to produce a reasonable facsimile of a square wave. Another indicator of the transient behavior of the system is its tone-burst response. When we used the test procedures we have employed in the past, the tone bursts from the speaker appeared reasonably good, but not exceptional. However, when we concentrated on the first one or two cycles of the burst (see the 2,000-Hz tone-burst trated on the first one or two cycles), we confirmed the claims made for the Ohm F: that it has a uniform energy output across the full audio-frequency range, that it radiates a cylindrical, coherent (in-phase) wavefront, and that it has transient-response capabilities surpassing those of the best conventional (piston) speakers.

- **Comment.** A speaker with the unusual tested performance of the Ohm F could hardly fail to sound exceptionally good, so we were not surprised to find that it did. Its sound was different from that of the other fine speakers we had on hand, in a way (spatial properties?) that was difficult to define. Of course, all the overworked clichés and adjectives (sweet, easy, open, unstrained, etc.) apply in full measure to the sound of the Ohm F. In our simulated live-vs.-recorded test it rated A to A+, depending on the specific musical selection involved. Considering that its 360-degree directional properties differed radically from those of the wide-dispersion (but not omnidirectional) test speaker employed as our "live" source, this was a notable achievement.

Despite the relatively low efficiency of the Ohm F, it could be driven to reasonable levels by a good 30-watt-per-channel amplifier. Of course, with one of the larger power amplifiers, able to deliver 100 watts or more, the sound began to warrant the use of such words as "awesome." The low bass, too, was extraordinarily clean and powerful. We had problems with objects in the room rattling at moderate listening levels, and this has occurred only rarely in the past.

It should be apparent from the foregoing that we include the Ohm F among those few speakers we have tested that achieves state-of-the-art performance. In addition, the Ohm F can do some things that no other speaker in our experience is capable of. Whether the ability, for example, to reproduce a recognizable square wave, and what that implies, has audible consequences is as yet not known (at least, to us), but it is certainly no minor accomplishment. As to whether or not the Ohm F is therefore the "best" speaker available—we will leave that to the ears of audiophiles; we are prepared to say, however, without reservations, that it is easily one of the best.

Circle 108 on reader service card

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**OPERATING PRINCIPLES OF THE WALSH DRIVER**

The long, tapered conical "diaphragm" of the Ohm F faces into a sealed enclosure, and radiates from what would be the back of a conventional speaker, producing a 360-degree doughnut-shaped dispersion pattern. The steep cone is made largely of metal foil (titanium and aluminum) to achieve stiffness, and it acts as a low-loss wave-transmission line, along which a sound wave moves at more than 3,000 feet per second—more than twice the velocity of sound in air.

The waves are generated at the apex of the cone (see diagram) by a voice-coil/magnet assembly similar in its basic operation to that of a conventional cone speaker. The voice coil, although it can handle large amounts of power, has a mass of only 4 grams, which is comparable to that of the plastic membrane of an electrostatic speaker. This represents the total inertia of the system at the highest frequencies.

The waves travel down the side of the cone toward the edge surround, where they are absorbed with very little energy reflected back to the cone. Each impulse travels the slant distance of about 12 inches (a) only once, in the same time it takes the acoustic waves (b) produced at the cone apex to travel horizontally about 3 inches to a point directly above the surround (c).

As the illustration shows, all the horizontal acoustic waves (b) produced meet on the dashed line (c–d) passing through the cone surround. Viewed in three dimensions, this corresponds to a cylindrical wave front, equivalent to that which would be produced by a pulsating cylinder whose circumference corresponds to the location of the surround of the actual cone. That this cylindrical wave front is in-phase and coherent at all points is evidenced by the speaker's ability to reproduce a square wavefront.

A subjective validation of some of the operating principles of the Ohm F, without using instruments, requires only listening with one ear very close to the cone (within the vertical area defined by the 12-inch diameter of the cone surround). Near the top of the cone the high frequencies predomi-
For the pleasure of your company.
GLOSSARY OF TECHNICAL TERMS - 5

- **Capture ratio** describes the ability of an FM tuner, when faced with two or more signals on the same broadcast frequency, to process only the strongest signal and reject the rest. When measured according to the existing Institute of High Fidelity standard for FM tuners, the best tuners have capture ratios of about 2 dB or less, which means that a strength difference of only 2 dB is sufficient to cause the tuner to "capture" the stronger and reject the weaker of two signals. The smaller the decibel number, the better the capture ratio. A good capture ratio may be necessary if a listener is situated within range of two FM stations (usually in two different cities) that broadcast on the same frequency. It can also be useful in reducing the effects of interference from reflected signals (multipath).

- **Carrier**, a term used mostly in connection with radio broadcasting, refers to the assigned high-frequency broadcast signal of a radio station that "carries," in the form of FM or AM modulation, the audio program originating in the station's studios. In FM, the frequency of the carrier is modulated to correspond to the audio signal of the program. In AM, the amplitude of the carrier is modulated according to the audio signal. The listener does not hear the carrier itself, which is not only beyond the range of our hearing, but is stripped away by the receiving tuner after it has sensed the signal modulation and used it to reconstitute the original program. "Carrier" is also used to designate the ultrasonic information-carrying frequencies on a CD-4 four-channel phonograph disc. The modulation of the CD-4 carriers embodies the additional audio information necessary to extract the original four channels.

- **Cartridge (phono)** is the device, little larger than a sugar cube, that is mounted at the end of a record player's tone arm and that "plays" the disc with its almost microscopic stylus (once called the "needle"). The stylus is physically vibrated as the record groove is drawn along it by the rotating turntable; the cartridge converts the vibrations into minute electrical signals. These signals are then carried to the amplifier or receiver via the connecting cables that emerge from the record-player base. Most high-fidelity phono cartridges are tiny electrical generators that produce their voltage—or current—output by means of miniature magnets and coils of wire (the so-called "magnetic" cartridges). There are other cartridge designs, including the photoelectric and the strain-gauge types that "process" electrical current from an external power supply.

- **Cartridge (tape)** is any of several types of enclosed tape package that can be inserted into an appropriate player or recorder and used without the tape's having to be removed from its plastic case. The word usually denotes the modern eight-track cartridge, a 6 x 4 x 3/4-inch package containing an endless loop of 1/4-inch tape on a single internal reel. Eight parallel tracks are recorded on the tape—four separate stereo programs or two four-channel programs ("Q-8" cartridges)—at a speed of 3 3/4 inches per second (ips). However, the audio cassette (see below) is also a cartridge, as are several similar devices used in home video recorders and frequently for broadcast-station audio.

- **Cassette** is the name given by its developer, Philips of Holland, to a small (4 x 2 1/2 x 1/2 inches) tape cartridge that is actually a self-contained miniature reel-to-reel system. Two unflanged hubs within the cassette case take the place of the reels. Cassette tape is roughly 1/8 inch in width, and on it are usually recorded four parallel tracks—two separate stereo programs, running in opposite directions—at 1 1/2 ips.

**STEREO REVIEW**
For the ultimate experience: the ESS amt 1 with its Heil air-motion transformer. So controversial it must be revolutionary — so scientifically simple it must be true. Now, finally, you can trust your own judgment when you experience the adventure of ESS sound. This is not another hi fi fad but an authentic new principle in accord with both the laws of physics and your own musical response.

Match the amt 1 to the ESS perfectionist, ultra-low distortion preamplifier and ESS active current source circuit power amplifier for that immediate recognition of excellence. Clean bursts of power to the amt 1’s instantaneous acceleration give you transients without a trace of clipping and music which emerges in crystalline clarity from a background of total silence.

Why invest in the old and obsolete when these components light the way to tomorrow? Break clear of the conventional and step into the future with confidence at your ESS dealer.
LA FAMOSA CECILIA VALDÉS 
...and other Latin delights

By WILLIAM LIVINGSTONE

ALTHOUGH the local English-language press seemed determined to keep it a secret, there was a three-week Latin-music festival in New York in August and September. The festival, presented by the Alliance of Latin Arts, was sponsored (paid for) by Exxon Corporation, though oddly Exxon, like the press, apparently did not make much noise about it. Since Dick Bungay, Classical Promotion Manager for London Records, claims that he was turned on to Latin pop music by Stereo Review's articles on the subject last May, I went to a number of the events with him (fresh converts make good company) even for old-time Latinophiles like me.

I had to pass up the single performance of Gonzalo Roig's Cuban zarzuela ("operetta" in English) Cecilia Valdés on August 16 to go up to Nyack to catch The Gershwin Years with Barbara Cook, Helen Gallagher, Harold Lang, and Julie Wilson (very entertaining). Dick went to see Cecilia Valdés (the tragic story of a carefree girl betrayed by her lover) at the Fordham University campus at Lincoln Center, where the festival was held, and later insisted that I had missed one of the great musical events of the season by being out of town. As it happened, an even more exciting event was the solo recital given three nights later at CAMI Hall by Martha Pérez, who had sung the title role in Cecilia Valdés. The recital was the first program in a series announced by a new organization, the Teatro Lirico Latino Americano (their schedule in-cludes Puccini's La Bohème and Verdi's La Traviata, among other things). Sponsored by a Latin bar-restaurant, Tijuana Cat, the recital was a resounding success. Miss Pérez, a mezzo-soprano, is a convert to a number of the events with him (fresh converts make good company) even for old-time Latinophiles like me.

I had to pass up the single performance of Gonzalo Roig's Cuban zarzuela ("operetta" in English) Cecilia Valdés on August 16 to go up to Nyack to catch The Gershwin Years with Barbara Cook, Helen Gallagher, Harold Lang, and Julie Wilson (very entertaining). Dick went to see Cecilia Valdés (the tragic story of a carefree girl betrayed by her lover) at the Fordham University campus at Lincoln Center, where the festival was held, and later insisted that I had missed one of the great musical events of the season by being out of town. As it happened, an even more exciting event was the solo recital given three nights later at CAMI Hall by Martha Pérez, who had sung the title role in Cecilia Valdés. The recital was the first program in a series announced by a new organization, the Teatro Lirico Latino Americano (their schedule includes Puccini's Il Tabarro and Federico Moreno Torroba's Luisa Fernanda). Sponsored by a Latin bar-restaurant, Tijuana Cat, the recital was a resounding success.

Miss Pérez, a mezzo-soprano, is a glamorous blonde of indeterminate age—my uncharitable guess is fifty to fifty-five. She was a big star in pre-Castro Cuba and now runs her own operetta company in Miami, and in the New York Latin community she has a very enthusiastic following. The first half of her recital consisted of Spanish art songs and an aria from Samson et Dalila (attributed in the program to Saint-Saëns), all done as night-club star turns by Miss Pérez, who was costumed to look like a younger Marlene Dietrich in aqua chiffon with lots of maribou trim.

For the second half of the program she came out in a Cuban colonial dress with a thousand white ruffles in its full skirt and sang songs written especially for her plus selections from the most famous Cuban operettas. Here she was in her element. She sang No Puedo Ser Feliz (I Can't Be Happy), which was composed for her, and she dedicated her performance to tenor Manolo Alvarez Mera, who, she said, made it better than she did. He was present, and when he stood to acknowledge the dedication, the audience lost its collective mind. Then Miss Pérez sang the big number from Ernesto Lecuona's María La O, one of my all-time favorite songs, and she did it so well (including the spoken verse, which is usually omitted) that I lost my mind too. Wildly applauded encores followed.

LATINS associate Miss Pérez especially with the role of Cecilia Valdés because, when she was very young and still had a high soprano voice, she made a famous recording of excerpts from the operetta with Aida Pujol and Ruth Fernandez; the conductor was composer Gonzalo Roig himself. (Originally released in this country on the Soria label and later reissued on Angel, that recording is now available—though not listed in Schwann—on the Montilla label as a disc or as an eight-track cartridge. The number for both is FM 118, available from Spanish World Records, 151 West 14th Street, New York, N.Y.). So, during the encore period after the recital, members of the audience kept calling for the hit song from Cecilia Valdés, and finally Miss Pérez told a man in the front row that she couldn't oblige because it required a chorus. He yelled back, "Don't worry, we can take care of that." She looked a little puzzled and said, "I know there are a lot of singers in the audience.

but..." and then nodded uncertainly to the pianist, Alfredo Munar, musical director of the Latin festival, who began the number.

The whole audience came in right on cue with the choral introduction, not just singing in octaves to find a comfortable pitch, but harmonizing, and with that kind of support, Miss Pérez socked it to us with Yo Soy Cecilia Valdés (I Am Cecilia Valdés), the best thing she did all evening. The intricate choral responses were incredible. There were a couple of good baritones and basses sitting near us—they must be members of the budding Teatro Lirico—but the whole audience knew all the words and notes.

After that Miss Pérez wisely opted not to do another encore and suggested that the audience join her in Roig's Quereme Mucho (known in English as Yours), which everybody but the two gringos present sang lustily—not like a bunch of Americans who can't get past the first two lines of My Country 'Tis of Thee without forgetting the words, but singing the whole song through in full voice. It was a thrilling evening.

WHEN the recital was over, Dick and I decided not to join the throng clustered around Miss Pérez and thought we should investigate the bar-restaurant that had put on this cultural event, so we went directly to Tijuana Cat on 46th Street between Eighth and Ninth Avenues—not, by the way, one of New York's tonier neighborhoods. It turned out to be a smallish something-for-every-one kind of place—a flossy hooker or two, a brace of male hustlers, a straight couple smooching at the bar, a few old ladies having fancy tropical drinks, and lots of married couples who had come for the floor show.

We were lucky we got there early to find a place to sit, because soon most of the audience from the concert arrived, and not long after that, Miss Pérez herself made a triumphant entrance. How so many packed themselves into that small place I'll never know.

The part of the floor show we saw was good. A very pretty blonde singer, Lennella Gonzalez, belted out several numbers in Spanish and English. Everybody seemed to know everybody else, and, as the outsiders, Dick and I were a little conspicuous, but everybody seemed to feel a little better after Dick chatted with a couple of the people who had been responsible for the concert and informed them that the managing editor of the world's most widely read music magazine was covering the evening, and I handed out a few business cards to ensure notification of future Latin musical happenings. We had a nice supper—the best tacos I've ever eaten, the opening nights I've been to at the Metropolitan Opera couldn't compete.

Recitalist Martha Pérez
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DON McLEAN

"You give up something for everything you get"

By Henry Pleasants

The first inkling I had of what sets Don (American Pie and Vincent) McLean apart from other troubled troubadours of his generation (b. 1946) was at a promotion luncheon prior to his appearance in London on the BBC-TV song series They Sold a Million. The producer of the series is Stanley Dorfman, and I was telling McLean about Dorfman's superb TV production of Frank Sinatra's farewell appearance at the Royal Festival Hall two years ago. McLean's eyes lit up behind his rimless spectacles, and he said: "I've just got to see that. I wonder if BBC would run it?

I almost dropped my gin and tonic. Wide-eyed admiration for Frank Sinatra, even as a singer, is hardly what one might expect from a young man who, only two years ago, was plying the Hudson and caroling environmental songs from Pete Seeger's anti-pollution sloop Clearwater.

In McLean's dressing room at the BBC-TV Theater in Shepherd's Bush a few days later there were more surprises, beginning with the fact that, when I was shown in, there was nobody in the room but McLean. No retinue, no secretaries, managers, assistant managers, public-relations people, journalists, wife, girl friend, backing group, musical director, groupies, or miscellaneous hangers-on. There was just McLean, a guitar, and a banjo. And that's all there was when he went on stage.

That's all there ever has been. Born and brought up in New Rochelle, New York, the son of Catholic, middle-class, suburban parents (his father was Scottish, his mother Italian), he was the youngest child by fourteen years, and his parents were in their forties when he was born. "That," he observes, "kind of left me to my own devices, and I guess I got used to it."

He still prefers being left to his own devices, doing what he wants to do in his own time and in his own way. Hence no backing group, except on records, and he intends to dispense with it on records, too. "I just feel that I can do more on my own," he told me, "than I can with other musicians. You know, the law of diminishing returns is involved. You give up something for everything you get." It may be the operation of this sentiment that underlies the fact that McLean is a college drop-out. I had complimented him on some of the verbal imagery in such songs as American Pie (ostensibly a farewell to rock, but really to America), Vincent (a wistful tribute to Van Gogh), and Crossroads (the most nearly autobiographical of his songs), and asked if he had been, like Paul Simon and Kris Kristofferson, an English major when he was in college.

"Hell, no," he answered. "Three months at Villanova was all I could take of that. I don't like lessons, I don't like schools, I don't like jobs, I don't like bosses, I don't like categories, I don't like policemen, I don't like...

"Did you ever see the Dick Van Dyke Show? Well, that was our neighborhood, just like that. I lived in a place called Mulberry Lane. Wonderful, fantasy. It's marvelous when you're a kid, at least it seems marvelous because it's so secure. But as you go on, the pressures get more and more apparent.

"You are being groomed for something. Your course is charted. So I said: 'To hell with you, man, you won't chart one inch of my course!' And so the guitar and banjo became a symbol to me of what was more important than making money and being successful.

"I was a natural singer, and being able to sing and learning to play my instruments, I freed myself. I started to do solo gigs. I played at parties, anything. I would play at parties rather than go to them. I really wasn't involved in the social concept. I was totally outside it."

He's a loner, then, even among his own generation, which may help to explain the diversity and nonconformity of his musical enthusiasms. They range, or have ranged, from Josh White, Pete Seeger, Sonny Terry and Brownie McGhee, Lee Hays and the Weavers, and the late Buddy Holly (to whom the "American Pie" album is dedicated) to Tony Bennett, whom he had heard and admired the night before at the Palladium.

First Sinatra, and now Tony Bennett! He did not, then, I suggested, subscribe to the put-down of professionalism so common among his contemporaries. "Not at all," he replied, "I'm doing my best to be a real pro myself, and I learn a lot by listening to people like Sinatra and Bennett. Nothing has pleased me more than a complimentary note I received from Peggy Lee. If she likes what I'm doing, I must be doing something right."

But it will still be a professionalism of his own devising. He is self-taught both as singer and songwriter, and even "self-taught" may not be quite the right term. He follows instinct rather than system, experience rather than assignment, even self-imposed assignment.

"You can't," he said, "write from a vacuum. You can't pull things out of the sky. At least I can't. Maybe Lerner and Loewe could do it, or Rodgers and Hart. But they have been craftsmen. I'm not. I either have something to say, or I don't. I can't sit down to write a song about X or Y or Z. Things just happen. When it's ready, a song comes out."

As a recipe for cooking up a million-seller, it's rather lacking in specifics. But the proof, I guess, is in the pudding — or rather in the pie.
If you’re in the market for four channel, you already know you’ve got to spend a good bit of cash for a receiver. So it’d be a good idea to spend a good bit of time checking specs on everything available just to make sure you get the most for your money.

To make your search a little easier, we’ve prepared the blank comparison chart above with spaces for some of the best-known brands and most important specs. Just take it with you to the store, fill it in, and you’ll be able to tell at a glance what you get for what you pay.

We took the liberty of filling in the Sylvania column with specs for our RQ3748 four channel receiver. We did it because we know we’re not the best-known name in four channel, and we didn’t want you to overlook us for that reason.

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50 watts of RMS power per channel at 8 ohms, 20-20kHz, with all four channels driven. 125 watts per channel in stereo bridge mode. A THD and IM of less than 0.5% at rated output. An FM sensitivity of 1.9 microvolts. A discrete four channel receiver with matrix capabilities so you can use either type of quadraphonic material. And much, much more.

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*So much more that it won’t all fit here. So send us a stamped, self-addressed envelope and we’ll send you a four-page brochure on our four channel receivers.

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### Comparison Chart

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<th>Model</th>
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<td>Continuous (RMS) Power</td>
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1. All power measurements taken at 120 volts/60 cycles, 8 ohms, 20Hz-20kHz, all channels driven simultaneously.
2. Manufacturer’s suggested list price which may be higher in some areas.
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From
AKAI
The Innovators
Mozart's
Symphony No. 29, in A Major

Although the date on the manuscript is illegible, Mozart authorities seem pretty well agreed that Symphony No. 29, in A Major (K. 201), belongs to the year 1774. The composer was then eighteen years old and in the service of the Archbishop Hieronymous von Colloredo at Salzburg. Unlike his beneficent predecessor Sigismund, Hieronymous was a callous and at times even cruel master who seemed to have little regard for the young genius in his employ. Still, Mozart continued to compose quantities of orchestral, church, and chamber music. The A Major Symphony is one of four that came into being in the years 1773-1774— the others are the "Little" G Minor (K. 183), the C Major (K. 200), and the D Major (K. 202). Together, they represent an amazing ripening of Mozart's powers as a symphonist. Of the A Major Symphony, Mozart's biographers Theodore de Wyzewa and Georges de Saint-Foix write:

The melodic ideas have so much amplitude and expressive intensity, the orchestral writing is so sure and of such striking maturity, that never perhaps until this point had Mozart composed a work so closely approaching the mastery which was to show itself in the great creative periods of his life. Certainly this symphony, to say the least, from the point of view of invention as that of métier, is the most perfect work to be met in all this first part of the master's career, up to his departure for Mannheim and Paris.

The opening allegro moderato movement is gentle and free-flowing. It begins with a figure in the strings that serves as a motto throughout the movement. The andante slow movement is a delicate romance, with the strings of the orchestra wearing mutes. The third movement, a minuet, is built principally upon a rhythmic figure heard at the very opening; the movement is brief and comes to an abrupt and unexpected ending as the winds enunciate the rhythmic pattern. The concluding movement, allegro con spirito, is a swift andalone, which again ends rather abruptly in an upward sweeping scale and two short chords. The whole symphony is a marvel of charm, grace, and brevity.

That opening allegro moderato poses tempo problems. "Moving moderately" is a very subjective marking that allows for an infinite variety of interpretations. In the first great recording of this symphony—by Serge Koussevitzky and the Boston Symphony (once reissued on Camden CAL 160)—the tempo adopted was incredibly brisk, transforming the movement into a virtuoso romp. Conversely, in a similarly long-unavailable recording by Guido Cantelli, the opening was taken at a snail's pace, so that the music seemed to exist almost in a state of suspended animation.

Most of the conductors represented in today's catalog with recorded performances of the A Major Symphony strike a middle ground between the speed of Koussevitzky and the languor of Cantelli. Three of the presently available recordings impress me as being particularly outstanding: Colin Davis' (Philips 835262), Otto Klemperer's (Angel S-36329), and Neville Marriner's (Argo ZRG-706). There actually are two Davis recordings currently extant: the Philips disc, with the London Symphony Orchestra, and an RCA Victrola issue (VICS-1379) with the Sinfonia of London. Davis has obvious affection for this music, and both readings are tender and loving. The Philips sound is cleaner and more detailed, but the RCA Victrola disc is less expensive.

Klemperer's recording is one of his most treasurable. Contrary to what one might anticipate, there is nothing of ponderous weight or heavy-footedness in his performance. Rather, he infuses the music with an airy freshness and exuberance that are most appropriate. He does employ a much larger instrumental body than either Davis or Marriner, but he gets his orchestra (the New Philharmonia) to play with a spontaneous vitality and suppleness.

Yet, my favorite among all available recordings, though, is Marriner's. Even more than either Davis or Klemperer, Marriner responds to the endlessly fascinating combination of lyrical flow and high good humor of the music. His performance, carefully shaded as to dynamics and instrumental balances, has an elegance to it that is really fine. And the Argo engineering is impeccable. Marriner and his extraordinary Academy of St. Martin-in-the-Fields have to their collective credit dozens of excellent recorded performances. This is one of the very best of them all.

There is apparently no available cassette recording of this Mozart masterpiece, and the only reel-to-reel version is Karl Böhm's, a dependable but uninspired reading contained in the three-reel collection of Böhm's performances of Mozart's Symphonies Nos. 25-41 (Deutsche Grammophon Y 9179).
ANY appraisal of the music of American songwriter Harold Arlen must begin with an assertion: among his greatest admirers are many of his composing peers and numbers of performing musicians and singers. Although at one decisive point in his long, productive career he chose to concentrate on the first of these professions ("calling" may, in his case, be the more appropriate word), Harold Arlen has at times flourished in all three. Therein, perhaps, lies one of the secrets of his art: if, as a composer, you can understand the needs of the performer, whether instrumentalist or vocalist, you are at least halfway there. The rest must be left to the unpredictable gift for musical invention. And how one gets that is a mystery not even the prodigiously gifted Arlen can penetrate.

Arlen seems to be unique among the great composers of popular song, for he has most consistently—and without even trying—written songs that would not be at all out of place in the recital hall. There is Last Night When We Were Young, for example, which was often included in recital pro-

By Edward Jablonski

"...the music of Arlen...is principally characterized by the deeply personal, individual sound of one man singing, by the voice of the composer himself."

By Edward Jablonski
grams and even recorded by Lawrence Tibbett. Another is *Where Is Dis Road a-Leadin' Me To?*, part of his *American Negro Suite*, magnificently recorded by Eileen Farrell. And there are at least two important aria-like songs from *St. Louis Woman (I Had Myself a True Love and I Wonder What Became of Me)* and another splendid example from *House of Flowers (I Never Has Seen Snow)*. This cursory list is not presented as any kind of proof that Harold Arlen has any ambition to become a "serious" composer. It is evident throughout his work, however, that he does not, for all his acute sense of fun and taste for satire, take his light music lightly. Neither do Irving Berlin or Richard Rodgers, nor, for that matter, did Jerome Kern or George Gershwin—a stellar company in which Arlen just naturally belongs.

Arlen's approach to his work, though practical and down-to-earth, is at the same time rather mystical. He speaks, for example, of the "unsought-for phrase," the idea that can be developed into a song. "The ideas are there," he says, pointing heavenward, "disorganized, maybe; it's up to the creator to organize them." More than one of his lyricist-collaborators have remarked on this near-religious quality in Arlen's attitude toward composition. He came by that attitude naturally, for as a boy he sang in his father's choir in the synagogue in Buffalo. New York, where the elder Arlen (or, rather, Arluck) was cantor. His mother's maiden name had been Orlin, so the derivation of the professional name, when one became necessary, was reasonably simple for Harold Arlen, who began life on February 15, 1905, as Hyman Arluck.

Thus it was practically from birth that the future composer heard music: his father's rich-voiced cantillation, long-lined, improvisational melodies, beautifully melancholy and touched with the haunting flatted thirds and sevenths this music shares with the folk blues of the Negro (during the Twenties they began to be called "blue notes"). Samuel Arluck's record collection contained many examples of this music, particularly as sung by the celebrated cantor Josef Rosenblatt, with whom he frequently teamed up for concert tours. The collection also contained recordings by Caruso and McCormack, but there were no popular records, not even Johnson's, in the Arluck household then.

It was Celia Arluck's idea, around the time her son was nine, that he should begin the formal study of music as a start toward becoming a music teacher. A music teacher, she reasoned, kept his own hours and was not likely, even though he taught secular music, to profane the Sabbath with toil. The lessons began, predictably, with the neighborhood lady piano teacher, and as his skill increased Arlen in time became one of the pupils of a Buffalo musical celebrity—the conductor-organist-composer Arnold Cornelissen.

Now, if the Harold Arlen story were being put together in Hollywood (no doubt one day it will be), we would next see him dashing off his Chopin with great skill and aplomb; not so. A typical nine- or ten-year-old, he did not care much for practicing. He even developed a system by which he could detect the approach of his mother via reflections in the window panes of the Arluck living room. When he caught a glimpse of her figure approaching after a shopping excursion, that was the signal for the Etudes to begin.

Having progressed already from the sacred to the secular, things rapidly descended to the profane: by his twelfth year, fed up with Chopin, the budding pianist had introduced a new, rather jarring note into the house, a novelty piano piece titled *Indianola*. A watered-down rag in the tradition of Nola and *Twelfth Street Rag*, *Indianola*'s melodic turns and syncopations fascinated the erstwhile Chopinist and opened up a whole new world of music for him. Soon he was exploring the popular-music counter of the local music shop and collecting recordings, popular as well as jazz (there were those who would have called *Indianola* itself jazz). In time, no doubt to Cantor Arluck's bemused distraction, the strange sounds of the Original Memphis Five (with trombonist Miff Mole) began to blare out from that same Victrola horn that had once thrilled to the voices of Caruso and Rosenblatt. And to these jazz strains were eventually added the voice of Ethel Waters, who successfully united show business (vaudeville, rather, at that time) with the blues, and, finally, the Real Thing in the phonographic presence of Bessie Smith.

This new obsession not only affected Arlen's study with Cornelissen, but soon revealed itself in his academic work in school as well. But he managed to struggle through at least a semester at Hutchinson Central High School before he elected to drop out. His piano playing and singing talents were beginning to bring him jobs with small musical groups around Buffalo, and he decided he would fare better as a performer than as an educator. And so, at the tender age of fifteen, he was playing the piano in a local "roadhouse" known as Minnie's. The story here takes on certain of the overtones of *The Jazz Singer*: Cantor Arluck was upset not only with his son's wayward way with his studies but with his apparently choosing instead a musical primrose path (though it is unlikely that a more in-
nocent pianist ever played in Buffalo’s palaces of pleasure). At a loss, the cantor approached an old friend, Jack Yellen, a former Buffalo newspaperman who had gone to New York and had made a name for himself as a songwriter. His hope was that Yellen would describe the pitfalls of the world of music so luridly to the erring dropout that he would return to school.

When Yellen asked the young Arlen what he expected to be when he grew up, the fifteen-year-old promptly answered, “A musician.” “Fine,” said Yellen. “Play something for me.”

“He did something of his own,” Yellen later recalled, “and whatever it was, it was a pretty good indication that he was his father’s musical son. He would never be the doctor or lawyer his father wanted him to be. Afterwards, I called his father and the first thing I said was, ‘It’s all your own fault; he’s going to be a musician.’”

THERE was, nonetheless, one last, halfhearted attempt at education as a concession to his parents, but Arlen continued to drift, apparently irresistibly, toward music and the theater. He began at rock bottom—as a butcher boy at the Gaiety Burlesque—absorbing what he could from the musical routines. He next became a pianist in a movie house, where he eventually found himself leading the small pit band. Moving upward, he was selected as the organist for the first movie organ installed in Buffalo. That he was unfamiliar with the instrument did not distress him—or, indeed, the patrons, who appear not to have commented on the absence of bass notes in his performances (he did not know then that these were supplied by the foot pedal).

Inevitably, he branched out and formed his own little performing group, jazzily named “The Snappy Trio” (violin, piano, drums), with the leader allegedly doubling on clarinet and supplying the vocals. This route naturally led the ambitious teenager right back to the tenderloin (Buffalo, a lake port, was then a sailor’s paradise). The manager of the cabaret he went to work in was untroubled by the youth of his musicians; he was too impressed with the fact that the leader not only sang and played the piano but also played the clarinet: he had hired a trio and got a quartet. What he did not know then that these were supplied by the foot pedal).

The trio rehearsed in the Arluck living room, playing such fare as Aggravatin’ Pap and other pop-jazz pieces, including a couple written by advisor Jack Yellen: Lovin’ Sam and Louisville Lou. A fascinated observer of this music making was another young Arluck, Julius, who was then about eight. He eventually took up the violin, later the saxophone, and in time evolved into Jerry Arlen, a composer of some note, though he was perhaps better known as an instrumentalist (sax) in various bands and as a conductor of shows.

The Snappy Trio did so well that it soon underwent a metamorphosis: it became the five-man Southbound Shufflers, a band that earned its way aboard the Canadiana, a boat plying Lake Erie between Buffalo and Crystal Beach, Canada. By the summer of 1924, the Shufflers were playing regularly at the popular Lake Shore Manor resort near Buffalo. Leader-arranger-vocalist Arlen was now nineteen, and he had begun trying his hand at writing songs, the first being one he now says he’d rather not hear again: My Gal, My Pal (May 1924). Although he plugged the song aboard the lake boats, it never caught on. Once, when asked what he recalled most vividly from those days, Arlen laughingly replied, “My ego.”

There were legitimate grounds for a bit of ego, for the band’s popularity was growing. Arlen nonetheless dropped out when he was asked to join an even more celebrated local group, the Yankee Six, which was popular with Buffalo’s college and “society” crowds. The “six” part of it quickly became a misnomer when the band swelled to eleven men, and so
the Buffalodians were born, a vehicle that would carry Arlen away from Buffalo and on to larger musical stages. In 1924 the Buffalodians began (in Cleveland) a barnstorming tour that would, by the next year, take them to New York, where they appeared first at the Palace and later at Gallagher's Monte Carlo. Somewhere along the way Harold (Hyman) Arluck disappeared, and Harold Arlen took his place.

Arlen's arrangements for the band began to attract the attention of other bandleaders, and he started doing some outside work, notably for Fletcher Henderson, whose band was then appearing at Roseland. His crooning vocal style also had its admirers, among them Bix Beiderbecke, one of the patrons of a musicians' hangout called the Silver Slipper, who complimented Arlen one night on his performance of I'm Comin' Virginia. It is therefore not surprising that he was coaxed away from the Buffalodians before long by Arnold Johnson's big band, for which he both arranged and sang. When the band appeared in the pit for the George White Scandals of 1928, it was Harold Arlen who sang, between the acts, one of the show's songs, I'm on the Crest of a Wave. But the performing/arranging grind palled eventually, and he resigned from the Johnson band to set out on his own in vaudeville as a single. Songwriting interested him very little then, although he had collaborated (with Lou Davis) on a song entitled The Album of My Dreams, his first published song.

The Album of My Dreams is another early song the composer would rather not hear again, but it is not a bad song—except by Arlen's own standards. It was once recorded by Rudy Vallee and played widely by the Abe Lyman band. When he received his first royalty check, which reflected mainly the Vallee recording, he was startled: it amounted to nearly a thousand dollars. Characteristically, Arlen attributed that to Vallee's popularity at the time and to the fact that "there was a good song on the other side of the record." But it was, in the year 1929, a very encouraging sign.

It was in that same year that he was signed—he was the choice of the composer himself—to appear in the Vincent Youmans musical Great Day. His role was that of one "Cokey Joe," and he had one song to sing. But the fact that Arlen was an accomplished pianist was not lost upon Youmans, a sharp man with a dollar, and Cokey Joe was soon drafted as demonstration pianist, playing Youmans' tunes for lyricists Billy Rose and Edward Eliscu. The usual problems that afflict a show in its growing stages were soon evident in Great Day, and these were aggravated by the fact that Youmans had elected to be his own producer. As rehearsals went on—and on—"The Great Delay" became a Broadway joke. So, as the summer dragged on, Arlen's ardor for the musical theater cooled and he began to consider other possibilities. His friend Will Marion Cook, who conducted the chorus for the show, tried to find him work in other productions also in rehearsal at the time, but the competitiveness, the tensions, and the sometimes lethal personal relations all that involved only increased Arlen's doubts about life upon the wicked stage.

The turning point, when it came, was accidental. Fletcher Henderson, who had become a friend, had been serving as rehearsal pianist for Great Day. Illness kept him from his keyboard one day, and Arlen was drafted to provide accompaniment for the dancers. While waiting out the pauses between run-throughs, he idly let his hands play around with the "pickup" (the little musical cue for the dancers that the music proper was about to begin). Characteristically, he built variations around the little phrase, and then expanded the variations. These developments excited interest, and it was Cook who pointed out that Arlen had the makings of a real song. Another friend, Harry Warren, a song plugger turned composer, agreed and introduced the budding composer to "the guy to write this up"—lyricist Ted Koehler. The result of it all was the song Get Happy, the song Arlen regards as his first truly professional effort. It was interpolated into the score of The Nine-Fifteen Revue (with music mostly by the great female songwriter Kay Swift) as the first-act finale. The show closed after seven New York performances (in February of 1930), but Get Happy became one of the hits of the season and has since become a standard. It also officially established Harold Arlen as a songwriter and ended all his performing ambitions. (Continued overleaf)
Ignoring, momentarily, the very special musical gifts with which they were born, it is illuminating to compare the backgrounds of some of our great popular song composers. Unlike Arlen, many of them—Berlin, Kern, Gershwin, Rodgers—were New Yorkers, and their origins and experiences are reflected in their songs. Berlin's early songs have an earthy, lower-East-Side, Bowery-vaudeville quality. Gershwin too came up from the streets and Tin Pan Alley, and his music shows it. But Kern and Rodgers came from comfortable, middle-class families, and they produced a more genteel kind of song that grew—in Kern's case, particularly—out of the tradition of European operetta. But they were all, one way or another, close to the centers of popular music and the musical theater, and in this company Arlen is practically a foreigner.

One thing Arlen does share with the others is a greater or lesser familiarity with the music of the synagogue, but though this is not a negligible element in his music, by far the stronger influence was his experience singing and playing with dance bands. His musical roots are, in truth, more closely related to those of, say, Jelly Roll Morton and Louis Armstrong than to those of his peers in the musical theater. Thus, when Harold Arlen came upon the musical scene, he was not only a new voice, but a unique one. Where Gershwin's style is pianistic—yes, even in his vocal music—where Kern and Rodgers are redolent of the theater, full orchestra, and "legit" voices, and Berlin marked by a populist, "man in the street" quality, the music of Arlen, touched though it may be by reflections of Tin Pan Alley, musical comedy, pop, and jazz, is principally characterized by the deeply personal, individual sound of one man singing, by the voice of the composer himself.

The quick success of Get Happy earned Arlen a contract with the song's publisher, security for a year (at $55 a week), and nothing to do but write songs. By the summer of 1930, Get Happy had become, in the slang of the time, "noisy," and its composer had plenty to do. There were songs to be interpolated into revues and an Earl Carroll Vanities, plus a couple destined for the famed Harlem hot spot the Cotton Club. In 1931, Arlen made his full Broadway debut with the score for You Said It, with lyrics by his Buffalo mentor, Jack Yellen. Though nothing outstanding emerged from the score, it was a beginning. A return to lyricist Koehler and the Cotton Club more fully revealed the composer promised by Get Happy: the 1931 edition of the club's semi-annual production was called Rhythmania: Arlen and Koehler provided the full score, including the songs I Love a Parade and Between the Devil and the Deep Blue Sea. Three more shows followed in the years 1932 to 1934, all titled Parade, and out of them came such songs as I've Got the World on a String, As Long as I Live, Ill Wind, and, of course, the classic Stormy Weather.

The Cotton Club, then located on Harlem's 142nd Street, was an IN place during the later Twenties and early Thirties. "Everyone" went there: Lady Mountbatten called it "the Aristocrat of Harlem." But "everyone" was a rather restricted group: if you were black, you had to be a Bill Robinson or an Ethel Waters to be able to sit and drink there, and mixed groups were not permitted. Carl Van Vechten rather bitterly commented, "There were brutes at the door to enforce the Cotton Club's policy, which was opposed to mixed parties." (Being thrown out of the Cotton Club could be traumatic: it was one flight up over the Douglas Theatre.) As the naïve young Arlen would soon learn, the Aristocrat of Harlem was actually a front for Prohibition mobsters—Owney Madden, George "Big Frenchy" DeMange, and Harry Block (who died in the line of duty during a period of "misunderstanding" between the rival proprietors of the Cotton and Plantation Clubs)—the prime outlet for what was known as "Madden's No. 1," the spirited product of his West 26th Street brewery, the Phoenix Cereal Beverage Co.

But the real raison d'être of the club was not its locale, nor its beverages, but its entertainment—"the cream of sepia talent, the greatest array of creole stars ever assembled, supported by a chorus of bronze beauties." The musicianship was outstanding. Such bands as Cab Calloway's, Duke Ellington's, and Jimmy Lunceford's played; Bill Robinson, among many others, danced. So did a very lovely, very young (she was sixteen) Lena Horne, and the vocal "array" was truly something to hear: Ira Gershwin and Harold Arlen are caught in mid-set in 1936 at that popular Beverly Hills gathering place, the tennis court.
Adelaide Hall, Leitha Hill, Aida Ward, and Ethel Waters. The production genius behind the fast-moving shows was song-and-dance man and comedian Dan Healy.

"The show was generally built around types," Healy later recalled. "The band, an eccentric dancer, a comedian—whomever we had was also the star. The show ran an hour and a half, sometimes two hours. We'd break it up with a good voice: Aida Ward or Ethel Waters. And we'd have a special singer who gave the customers the expected 'adult' song in Harlem, a girl like Leitha Hill. There was good food too, and a cover charge of $3.00. There was practically every kind of drink. Good booze, too—it was the McCoy."

It was rather a strange milieu for a cantor's son from Buffalo—or anywhere else—but once he had become accustomed to the presence of the toughs, Arlen felt completely at ease. He was a favorite of the musicians and cast members. Musically, too, he was at home: having absorbed the feel of jazz as a youngster, he had no problem composing music with what he calls "the authentic ring." Not that the scores composed for the Cotton Club were written as imitation black music: the songs were rather designed to provide showcases for outstanding talents, and were never intended to be "ethnic." Still, because he worked so successfully within the requirements of the club, Arlen was for a time typed as a writer of blues (curious, since not one song he wrote for the club was a blues: not even Stormy Weather), and when his name became celebrated, people who met him were often surprised to find that he was not black.

The late Roger Edens, a friend of Arlen's who went on to become an important Hollywood musical figure, recalled something of those days: "It was great excitement for me to go with Harold to the rehearsals. I shall never forget the sight and sound of Harold with the cast. Singing with them, dancing with them, laughing and kidding with them. He had absorbed so much from them—their idiom, their tonalities, their phrasings, their rhythms—he was able to establish a warming rapport with them."

And it was Ethel Waters who once said of Arlen, "He's the Negroist white man I ever knew."

During the Cotton Club period Arlen worked with two other lyricists besides Koehler—on the song Satan's L'il Lamb for the revue Americana. It did not prove to be a "noisy" song, but the introduction to two new wordsmiths—E. Y. "Yip" Harburg and Johnny Mercer—led to big things later. For the Earl Carroll Vanities of 1932 the Koehler-Arlen team did come up with a noisy number, I Gotta Right to Sing the Blues. The revue was especially memorable for Arlen not because of the hit the song made, but because of the hit a seventeen-year-old member of the chorus made with him. She was Powers model Anya Taranda, and she became Arlen's wife in 1937.

The song creating all the noise in this period was, of course, Stormy Weather. Its immediate inspiration was the "hi-de-ho" vocal style of Cab Calloway, for whom Arlen devised what he refers to as a "front shout" on the first three notes of the song ("Don't know why . . ."). The rest of the song was developed out of these first three notes, and the whole was completed—words and music—in less than an hour. It so happened that Calloway did not appear in the Cotton Club Parade for 1933, having been replaced by non-front-shouter Duke Ellington, so Ethel Waters got to sing Stormy Weather. The song was famous even before the show opened, however, having swept the country in a recording made by the composer with the Leo Reisman orchestra (it is still available on RCA LVP-565). By opening night there was therefore great excitement over the song and Ethel Waters' singing of it. "The ropes were up," recalled Dan Healy, who had staged the number effectively with the singer standing beneath a lamp-post and a midnight blue spot. The audience demanded—and got—a full twelve encores.

Stormy Weather is quintessential Arlen, but it wasn't until the analytical George Gershwin pointed it out to him that the composer realized what—in addition to spectacular popularity—he had accomplished with the song. Gershwin was most impressed with the fact that in the entire first statement of the melody, from the opening "Don't know why . . ." through "Keeps rainin' all the time," there is no exact repetition of a musical phrase for eight bars, even though each phrase is a variant of
the one before. Nor does the song follow the conventional thirty-two-bar verse and chorus structure. There is no verse, and the song runs to thirty-six bars. *Il Wind*, composed for the following year's *Parade*, consists of forty bars—and no introductory verse either. While by no means the popular-music equivalent of the introduction of dodecaphony, the unusual form of these songs—and especially the character of *Stormy Weather* that so captivated Gershwin—was a decided break with the conventions of the time. It simply wasn't done, insisted the publisher—until the coin began rolling in.

It certainly wasn't done simply. When *Get Happy* had hit so noisily, there was nothing in Arlen's past to tell him that it could ever happen again, so he took the precaution of carrying a small musical notebook with him (he even kept one on the night table at his bedside). He would take no chances that fleeting melodies would escape him. And so, though *Stormy Weather* leapt into existence in less than an hour, its creation had been made possible by creative muscles strengthened through a great deal of apparently incidental exercise. In time Arlen realized that the flow of musical ideas was evidently boundless, and though he abandoned the notebooks, the compositional method that had evolved from them continues to this day. He keeps about him piles of music paper containing what he calls "jots," fragments of ideas that came to him and that he thought worth writing down. A single page might well contain as many as a dozen ideas running from a handful of notes to a few bars in length. Here and there a jot may be labeled for its intended song type ("ballad") or dramatic function ("lyric situation"), and any single page may contain the germ of an idea for a just-completed song right along with one that was used in a film musical in the Forties.

The germ of *Let's Fall in Love* will not be found in those pages, however, for it had another genesis. The success of *Stormy Weather* had awakened the interest of Hollywood in the team of Arlen and Koehler, and Arlen happened to be in the William Morris Agency office when word came through on the teletype that Columbia Pictures wanted them to do a film tentatively titled *Let's Fall in Love*. It was literally stunning news for the young composer and, nearly sick with nervous excitement, he excused himself momentarily to seek a little composure in the men's room. He returned a short time later, and in his pocket was an eight-bar jot of what was to become the film's title song (he and Koehler completed it during the long train ride to California).

THOUGH the final working-out of any song depends also on the contribution of his collaborators—Ted Koehler, Ira Gershwin, E. Y. Harburg, Dorothy Fields, or Truman Capote—Arlen's composing method perhaps explains why his songs are all of a piece despite their— for popular music—odd lengths. The break with songwriting convention has rarely interfered with their popularity, but it has doubtless thrown his lyricists a time or two. Johnny Mercer once startled Arlen at a party by saying, "I don't understand your music!"—this after he had already written the lyrics for *That Old Black Magic*, *Blues in the Night*, and *One for My Baby*. He may well have been more than half serious. Take, for example, a searching melody like *One for My Baby* and imagine it as Mercer first heard it, without the words. What was this wandering, convoluted melody "saying"? We can tell ourselves that it is a haunting, troubled expression of loss, but we are now well after the fact, and perhaps we know that only because Mercer's brilliant lyric has told us so. At least in this case he understood Arlen's music.

But Arlen's unique, innovative love of experi-

ment has puzzled others of his collaborators as well. Yip Harburg, for example, found *Over the Rainbow* “much too grand” for the score of *The Wizard of Oz*. Having completed the rest of the score (what Arlen calls the “lemon-drop songs” — *We’re Off to See the Wizard*, *Ding-Dong! The Witch Is Dead*, etc.), the composer sensed that what was required was a full, rich melody with a broad, long line. He had looked for it in vain at the keyboard, but it came to him out of the blue while driving down Sunset Boulevard with his wife. He jotted it down on the spot (in front of Schwab’s Drug Store), and added the contrasting middle section the next day, basing it, with typical inventiveness, on *Chopsticks*.

But Harburg’s reception of the song was rather frosty. “That’s for Nelson Eddy, not a little girl in Kansas.” There were words — not lyrical ones — and the collaborators finally decided to take their argument to a man they both admired and trusted: Ira Gershwin. Gershwin listened and pronounced the melody good; Harburg relented and went to work. The result was one of the classic film songs of all time. That was not the end of the battle for *Over the Rainbow*, however. MGM’s “front office,” that mythical region populated generally by individuals who know nothing about music and sometimes even less about film making, cut the sequence out of the film three times. “Too slow,” they said. “It slows up the picture.” Each time it was cut, songwriter Arthur Freed, who was in charge of the musical end of the film, charged in and had it restored. The song stayed, and the Front Office was finally happy: it was voted the best film song of the year, winning an Academy Award “Oscar” for Arlen and Harburg.

Vindication was pleasant, but the experience taught Arlen a lesson. He returned home one evening after having seen the third *Over the Rainbow*-less preview and said to his wife, “No more previews. From now on I’m going to write the best I can, turn ‘em in, and forget ‘em.”

Arlen did his last Cotton Club *Parade* in 1934 and then teamed up with Ira Gershwin and Yip Harburg to do his first solid Broadway hit, *Life Begins at 8:40* (with such songs as *Fun to Be Fooled*, *Let’s Take a Walk Around the Block*, etc.). But Broadway in mid-Depression offered slim pickings — the center of musical-comedy gravity had moved to the Goldwyn Coast. By the mid-Thirties, everyone who was a musical somebody — Berlin, Kern, the Gershwins, and others — had fled to Burbank and settled down among the tennis courts, swimming pools, Back Lots, and Front Offices. The result was a delightful flowering of the musical film, one of the peaks of which was *The Wizard of Oz*.

Hollywood did not utilize Harold Arlen’s full potential during his long stay there, but he produced a number of fine songs nonetheless, some of which not only became popular but have remained so long after the films to which they were attached have entered limbo. For such film mediocrities as *Blues in the Night* he did the title song and *This Time the Dream’s on Me*; for *Star Spangled Rhythm* he did, with Mercer, *That Old Black Magic*; for *The Sky’s the Limit* (1943) he and Mercer concocted *One for My Baby* and *My Shining Hour*; for *Up in Arms*, with Ted Koehler, there were *Now I Know* and *Tess’s Torch Song*; Bing Crosby’s *Here Come the Waves* (Mercer again) gave us *I Promise You*, *Let’s Take the Long Way Home*, and the quasi-spiritual *Accentuate the Positive*; and *Casbah* (Leo Robin) had at least four outstanding songs — *It Was Written in the Stars*, *What’s Good About Goodbye?*, *For Every Man There’s a Woman*, and *Hooray for Love*.

(Continued overleaf)
On two other films (My Blue Heaven and Down Among the Sheltering Palms) Arlen not only contributed the music but collaborated (with Ralph Blane) on the lyrics as well. With Dorothy Fields he did two flops, Mr. Imperium, which teamed Ezio Pinza and Lana Turner (!) and The Farmer Takes a Wife, with Betty Grable and Dale Robertson (?). The first resulted in two fine songs—both music and lyrics—*Let Me Look at You* and *Andiamo*, and the second might have been (musically speaking) a filmic Oklahoma! or Bloomer Girl had it not fallen so flat in both screenplay and casting. Arlen and Yip Harburg also contributed songs to the film version of the Broadway musical Cabin in the Sky, the songs *Life’s Full of Consequence* and, of course, *Happiness Is a Thing Called Joe* being interpolated alongside some of the Vernon Duke originals.

Arlen elected to break out of Hollywood in the Fifties, but he left in a blaze of glory, producing the scores for *A Star Is Born* and *The Country Girl*, both with superb lyrics by Ira Gershwin. Out of these collaborations came *The Search Is Through, Dissertation on the State of Bliss*, and of course, *Happiness Is a Thing Called Joe* being interpolated alongside some of the Vernon Duke originals.

**N**ot that Arlen was in any way a prisoner during his Hollywood sojourn. Between encounters with front-office incompetence, he would from time to time break out and head back to Broadway. Thus, about two years after the move west, he and Harburg produced a fine score for a remarkable antiwar musical, *Hooray for What?* (1937). Starring Ed Wynn, the show presented such songs as *God's Country, I've Gone Romantic on You, Buds Won’t Bud* (which was eventually cut), *Moanin’ in the Mornin’, In the Shade of the New Apple Tree*, and a very spiky ballet (choreography by Agnes de Mille). The show enjoyed a substantial run, but Arlen and Harburg did not get back to Broadway until 1944, for the production of *Bloomer Girl*. This was Harold Arlen’s longest-running show (654 performances) to date, and one of his most prodigious scores: *Evelina, Right as the Rain, The Eagle and Me*, and *T’morra, T’morra* are but a few of its forty-eight bars; *The Man That Got Away*, sixty-two bars). . . . Frequently with him, the lyricist—whether Koehler or Mercer or Harburg or myself—finds himself wondering if a resultant song isn’t too long or too difficult or too mannered for popular consumption. But there’s no cause for worry. Many Arlen songs do take time to catch on, but when they do they join his impressive and lasting catalogue.”

Thus spake, with characteristic cogency, Ira Gershwin. Unfortunately, these two films were his final full-scale efforts as a wordsmith; he retired from the fray to attend to annotating and caring for the extensive Gershwin archives. Unlike Arlen, who fled the scene, Gershwin chose to remain in Beverly Hills, though holding himself carefully aloof from Hollywood’s traps and blandishments.
highlights. The composer's versatility is beautifully demonstrated in this thick slice of Americana which treats such topics as women's rights, war, and slavery - rather strong fare for a musical, but all the elements meshed (including some outstanding ba-
llets by De Mille).

Within two years, however, Arlen was back again. This time his collaborator was the pixie poet
Johnny Mercer, the show St. Louis Woman, regarded
by Those Who Know (see Alec Wilder's com-
mentary in his American Popular Song, Oxford
University Press, 1972) as one of the finest scores
ever produced for the American theater. Unfortu-
nately, it was afflicted with a book (it echoed, but
badly, some of the themes of Porgy and Bess) that
not even an outstanding score could save. Come
Rain or Come Shine has of course become a part of
our national musical heritage, but that is only partial
consolation for the loss (except to a handful of de-
votees) of such songs as I Had Myself a True Love,
Sleep Peaceful, Mr. Used-to-Be, Ridin' on the
Moon, and I Wonder What Became of Me.

In the period 1954 through 1959, Arlen, under
the concerned goading of his friend, producer Rob-
ert Breen, reworked the St. Louis Woman score,
setting every word to music, adding new songs,
and rechristening it Blues Opera. Unfortunately,
this enrichment did not apply to the book (now a "li-
bretto"), and though Blues Opera bubbled with
melody and rhythm, it could not rise above the
worn story of a diminutive jockey and his lady of
easy virtue. When, in another retitling, it opened as
Free and Easy in Europe in the winter of 1959, it
was hailed in both Amsterdam and Paris; but it
closed abruptly because of internal problems, and
has not been heard to date in the States.

Arlen returned to Hollywood after St. Louis
Woman, even though the musical film had by then - 1946 - almost run its course, to do several
scores, most notably the two with Ira Gershwin. In
1954 he left Beverly Hills for good to work with
Truman Capote on House of Flowers. It was a cu-
rious collaboration, for it was accomplished (at least
during the initial phases) by mail and long-dis-
tance telephone, with Capote in Switzerland and
later Paris, Arlen in Beverly Hills and later New
York. And even when they finally got together in
New York in February of 1954, there was another
complication: Arlen became seriously ill. Some
three dozen blood transfusions later, and despite a
welter of tubes and medical gadgets, work on the
show was going forward in Arlen's room at Doctors
Hospital. There was no piano, but Capote and Ar-
len nevertheless managed to put together the beau-
tiful score for House of Flowers - the composer at
times beating out the rhythm with spoons on his
dinner tray.

But something happened to House of Flowers on
its way to the Alvin Theater - two things, in fact.
One was that the show came under the domination
of its star, Pearl Bailey, the other was that extensive
revisions were made necessary by this fact. These
pretty well erased the simple, yet sophisticated,
quality of Capote's original little folk tale (it had
won the O. Henry Award in 1950), in which the
emphasis had been on the wistful, gentle young lov-
ers (Diahann Carroll and Rawn Spearman) rather
than on the antiely lusty Madame (Pearl Bailey).
They erased Capote too; disenchanted with the
realities of backstage show biz, he simply vanished.
But what remained was nevertheless a beautiful
show (Oliver Messel's sets and costumes -what
there were of them -were memorable), and a mel-
odic one as well (the score won the Critics' Award
for 1954).

The warm reception of the luxuriant, sensuous
score was a gratifying return for Arlen and for his
public. The show is filled with remarkable songs - A
Sleepin' Bee, the title song, Don't Like Goodbyes,
Two Ladies in the Shade of de Banana Tree, and all
the others - but it is I Never Has Seen Snow that,
for this show at least, best sums up the Arlen style.
It is no ordinary musical-comedy concoction, but a
remarkably constructed art song (Alec Wilder calls
it a "song-aria"). The commentary (if that is the
right word) of the accompaniment is strikingly ef-
fective as its interaction with the vocal line contrib-
utes to the varying moods of the song. This is ac-
complished by using the devices of harmonic ten-
sion and thematic variation (an old Arlen trade-
mark) through which an idea to be developed later
in the song is fragmentarily anticipated earlier in the
left hand, and there is a wonderful counterpart at
the song's climax when a theme of the verse is
played against the theme of the chorus. It is, simply,
a great moment in American song.

No greater example of Arlen's versatility exists
than his next musical, Jamaica (1957). Set, like
House of Flowers, in a Caribbean isle, it presented
again the problem of writing songs that possess that
"authentic ring" the composer always strives for.
Compare the scores of, say, The Wizard of Oz,
Bloomer Girl, and House of Flowers: all are by the
same man, yet all are strikingly different, and all fit
their settings, periods, and characters perfectly.
Since the story of Jamaica was not rooted in a folk-
ish world, it was possible to devise songs expressing
the real one. The people of Jamaica are more so-
plicated and tougher (though no less romantic)
Although there is not nearly enough recorded Arlen to please his devotees, there are some choice, representativeollections of the classic film scores and Broadway musicals. The soundtrack album of The Wizard of Oz is still available (MGM S-3996 ST—artificial stereo), and so is that of A Star Is Born (on Columbia's budget label Harmonium—HS 11366). Poignantly, these two sets present the late Judy Garland virtually alpha and omega, at the beginning and near the end of her career. They are both beautifully accomplished and belong, if anything ever did, in every collection.

The Broadway albums are rather spotty, though what there is of them is excellent. The earliest is the original-cast album of Bloomer Girl (Decca DL 79126E—"electronic" stereo, to be sure, but it really is enhanced), on which the composer himself does a song, and very well, too. The recording of St. Louis Woman was, for a time, a costly collector's item (and may be again, for all I know), but it was reissued by Capitol as a twelve-incher (DW 2742) and may still be around despite its absence from Schwann. The recording dates back to the 78-rpm days, but the sound is still good and the singing throughout is fine. The original-cast album of House of Flowers (Columbia COS 2320) is still available on Columbia's Special Products label. The revival (some songs were deleted and four new ones added) was issued in 1968 by United Artists (UAS 5180) and may still be around if you look hard enough. It is a fine supplement to the original album—there are four new songs, remember.

Individual Arlen songs are to be found throughout the catalog. Collecting them would put a strain on floor—not just shelf—space as well as the exchequer. The various albums by Judy Garland, Frank Sinatra, and Bobby Short all have delightful (and often classic) versions of Arlen works. They cannot all be described; enough to say that, browse and choose as you will, you can't go wrong. I will call particular attention, however, to "Leo Reisman, Vol. I" (RCA LVP-565), which contains the composer's original recording of Stormy Weather, and another, "Harold Sings Arlen (With Friend)," on Columbia OS 2920, out of the catalog but worth looking for. The "friend" is Barbra Streisand, whose rendition of House of Flowers is a joy.

An interesting instrumental collection called "Harold Arlen in Hollywood" (Mommouth-Evergreen MES 6918) assembles ten songs plus a Wizard of Oz medley. There is plenty of good music-making in this imaginative and well-recorded set. Mommouth-Evergreen has rendered a great public service by reissuing the Lee Wiley albums from the late Thirties and early Forties, specifically "Lee Wiley Sings Rodgers & Hart and Harold Arlen" (MES 6807). Great songs, great singing, and great accompaniment make this—what else?—a great album.

Not so "Harold Arlen Revisited" (Cree 1345), however, another excursion by Ben Bagley and his crew of camp followers into the rarities department of our popular songwriters. The idea is not bad, but the execution is just that—execution. Some of the performers are musical—Blossom Dearie, for example, and Gloria De Haven. But the songs are in general so mangled even the composer might have difficulty recognizing them: Spring Fever is a good example. Unfortunately, there are no other recordings of some of these fine songs.

The splendid pianist Ellis Larkins (he once had a fine Harold Arlen album on the Decca label) has been engaged, over the past few months, in recording a multi-album collection of Musical American, and one of the sets will be devoted to the music of Harold Arlen. Larkins is a musician of sensitivity and imagination, and one of the composer's own favorites. This album is therefore awaited not only with eagerness, but with impatience by Arlen admirers.

there are brilliant commentaries (lyrics by Yip Harburg) on contemporary civilization in Push de Button, Napoleon's a Pastry, and Leave the Atom Alone. While these might be categorized as "lyric songs," their musical setting is by no means perfunctory. And there are also songs of immediate, though complex, musical appeal: Savanna, Coconut Sweet, What Good Does It Do?, and Take It Slow, Joe, among others.

Originally conceived by Harburg and Fred Saidy for Harry Belafonte, Jamaica was to become instead a "vehicle" for Lena Horne. Though she was splendid in it, the show that saw the footlights was not the one originally imagined by Harburg and Saidy. It suffered many a production permutation before its New York opening, and emerged in time as less a show than a night-club turn—though, to be sure, considering the presence of Miss Horne, a great one. Still, people did have some trouble remembering just what the thing was about, including its originators. As far as producer David Merrick was concerned, it was about money; he prevailed, and it was. Jamaica became Arlen's second long-run "hit" (Bloomer Girl was the first).

Two years later, Arlen returned to Broadway with Sarafoaga. It was a misadventure, but it began propitiously with the Edna Ferber tale that had done so well as book and film. Morton DaCosta (then enjoying a reputation as a never-miss director)
supposing the script and direction, and lyrics by Johnny Mercer (though he had at first balked at the idea). But Saratoga turned out to be a shambles. The book simply did not lend itself to musical treatment (Mercer had been right), DaCosta the author found himself at odds with DaCosta the director, and by the time the show reached Philadelphia it was already in trouble. Changes—frequent and extensive—made more work for composer and lyricist; songs went out and others came in. Exhaustion finally overtook Arlen: he went to the hospital and the score was completed by Mercer (he wrote both music and lyrics for three songs). When the show opened, the critics flayed it and the audience stayed away. Though it is preserved on records (under the direction of Arlen’s brother Jerry), it lasted only about eighty performances.

Arlen does not like to think about Saratoga, and must be reminded that it does contain some superior songs: there are, for example, Love Held Lightly, feminine, delicate, hopeful, and trusting, and Love Is a Game of Poker, masculine, reckless, and cynical. They are effective both individually and when sung contrapuntally. And the score also contains one of Arlen’s art songs, Goose Never Be a Peacock, sung in the show by Carol Brice; the delightful Countin’ Our Chickens; the waltz Parks of Paris (dropped during the Philadelphia tryout); and the memorable ballad The Man in My Life. But all that lovely music went down the Broadway drain.

It would be bathetically poetical to say that so did Harold Arlen, but it wouldn’t be the truth. The Broadway musical itself, however, with few exceptions, has rather gone down the drain since 1960, and though Arlen and a number of other fine composers have looked for suitable books, they have not found them. For a time he worked with lyricist Martin Charnin on some isolated songs and on a project called Softly, but nothing (so far, at least) came of that. There were other songs as well, a couple with Yip Harburg (including one called The Silent Spring that will be heard in the cross-country tour of Mara Worth and Bob Rue’s Harold Arlen Concert) and some with Dory Previn.

During the latter part of this period, personal tragedy—the long illness and subsequent death in 1970 of his wife Anya—kept Harold Arlen from his music. This shattering event quite naturally closed a period in the composer’s life. Despondent and dispirited, he was unable to bring himself to work for about two years. Then, with what must have been a heroic effort, he began again to play, to sing, and, even better, to compose. A meeting with the youthful dramatist Leonard Melfi resulted in a collaboration on a television fantasy-musical, Clippity Clap and Clementine, for which Arlen is now doing both words and music. This bodes well for the further enrichment of the Arlen catalog and of his fans.

Little has been said up to this point about Arlen’s music without words. Since he has not aspired to the concert stage, the works are few, but they are also valuable. Among his earliest published pieces (even before Get Happy) are the solo-piano titles Minor Gaff (Blues Fantasy), Buffalo Rhythm, and Rhythmic Moments (1928). In 1935, on commission from Dr. Frank Black, Arlen composed a Mood in Six Minutes (orchestrated by Robert Russell Bennett) for radio’s old General Motors Symphony Hour. Also for radio he wrote the American Minuet (1939). The next year he produced the American Negro Suite (words by Ted Koehler), six songs for voices, solo and chorus, and piano. Two little piano pieces, Ode and Bon-Bon, were composed in 1960, and Abstractions (subtitled The Flight of the Sleeping Pill) is an amusing commentary on “serious” piano pieces by composers who take themselves too seriously.

Despite the undertone of melancholy evident in so many of Arlen’s songs, he has invariably displayed a playful sense of humor as well. He is that rare great man who does not take his greatness seriously, richly friendly, warm, loving, and kind, and genuinely witty. All these qualities are in his music—know that, and you know the man. He remains lively and active, well in touch with what is going on in the world—though, like the rest of us, he worries about it. He is gracious during interviews, though apt to turn a too-sober query into a joke. Once, when asked if the form his songs took was an attempt on his part to be “different,” Arlen replied, “I don’t think I’m trying to be different; sometimes I get into trouble, and I break the form. I start twisting and turning, get into another key or go sixteen extra bars in order to resolve the song. And, often as not, I’m happier with the extension than I would have been trying to keep the song in regular form.”

“But whatever the reason,” the interviewer persisted, “it always seems effective. Wouldn’t you say that this is a rather intellectual way of composing?”

“Well,” replied Arlen with his deep chuckle, “if you want to call it that. But getting out of trouble isn’t being intellectual—it’s just being shifty.” Well, yes, about as “shifty” as a bluebird, or any other creature whose natural mode of expression is song.

Edward Jablonski is the author of the Harold Arlen biography Happy With the Blues (Doubleday, 1961). His The Gershwin Years (written with Lawrence D. Stewart) expanded and revised, was reissued in September for the Gershwin anniversary.
QUADCASTING
A Progress Report on Four-Channel FM

By LEONARD FELDMAN
Once upon a time, no more than fifteen or so years ago, there suddenly appeared on the audio-equipment market a number of monophonic tuners and receivers bearing a rear-panel jack labeled "STEREO FM." Did this mean that a stereo FM signal was then available from these jacks? Not at all; the jack simply provided a signal that might one day be fed into some as-yet-undeveloped stereo FM signal was then available.

When stereo broadcast systems would be approved by the FCC, or even whether the circuits of the tuners and receivers with this "capability in waiting" would enable them to produce the kind of signal at the "stereo" jack that could be properly decoded.

Shades of 1958! Once again, new tuners and receivers are appearing bearing special jacks, only this time they are labeled "4-CHANNEL FM." In 1958, the problem was to select the best system for stereophonic FM broadcasting from the many proposed systems then being advanced; the necessary studies, tests, and FCC rule-making took more than three years. Another quest is now under way, and this time the goal is to find the best method of broadcasting in four channels. With the sanction of the FCC, the NQRC (National Quadraphonic Radio Committee), an organization made up of audio and broadcast-industry representatives, is actively investigating the problem. But, again, present indications are that it will be at least two or three years before regular four-channel FM broadcasts could be authorized by the FCC—assuming, that is, that one of the six proposed systems (all of them involving significant changes in present broadcast rules—and in FM receivers) is selected by the NQRC.

Matrix quadraphonic programs are already being broadcast—and received—of course, since matrix systems require no alteration of present stereo FM transmission or receiving equipment and consequently no additional FCC approval. Matrix adherents contend, therefore, that the four-channel-broadcasting "problem" does not exist since:

1. matrix decoders equipped with full "gain-riding" and/or other types of logic control can do as good a job of re-creating a quadraphonic sound field as discrete recordings of the same material;
2. the cost of conversion of present commercial broadcast equipment and the greater cost of home receivers or tuners equipped for any discrete four-channel broadcast system will retard the general growth of four-channel sound;
3. the switch from mono to stereo FM broadcasting has already degraded the signal-to-noise ratio and aggravated multipath-distortion problems for many listeners. Any system approved for discrete four-channel FM is quite likely to further degrade all FM reception; and
4. many existing tuners and receivers do not have sufficient bandwidth to permit conversion or adaptation to currently proposed discrete four-channel broadcast systems. And even those that are "convertible" would probably require extensive internal modifications in order to get optimum performance from any adapter.

The enthusiastic supporters of discrete four-channel broadcasting counter these arguments with a few of their own:

1. no current matrix system, however assisted with logic circuits, achieves the audible degree of channel separation under all musical conditions possible with a discrete system;
2. discrete four-channel discs are being released by RCA and now by the Warner/Elektra/Atlantic group as well. If no discrete FM quadraphonic broadcast system is approved, these discs will be heard by radio listeners only in their equivalent (though compatible) stereo form (unless, of course, the broadcast station demodulates the discs into four discrete channels and then re-encodes them in matrix format for broadcast: such encoders are now available to broadcasters);
3. discrete four-channel tapes and four-channel live concerts would have their performance quality degraded by some form of matrix encoding prior to FM broadcast if a discrete broadcast system were not authorized; and
4. the rapid developments in integrated-circuit (IC) technology may well enable receiver and tuner manufacturers to include decoding facilities for quadraphonic FM for less money than it would cost to equip components with matrix-plus-logic circuitry (this is possible only because the FM four-channel decoder will replace the existing stereo decoder, and without too great a cost increase).

The claims and counter-claims from the two sides of the dispute apart, just what is involved from a technical standpoint in cramming four separate signals into a single FM broadcast channel? To understand how it can be done, it might be well to review first the process by which today's stereo broadcasting is accomplished. Figure 1 shows the various signal components that make up the single composite signal used in the frequency modulation of the station's "carrier." The audio signal occupying the channel spectrum from 50 to 15,000 Hz (15 kHz) is represented as a block at the left of the diagram and is composed of the sum of the left and right channels (L + R) of the stereo program. This assures that anyone listening to the broadcast on a mono radio will hear the two stereo channels combined into one (monophonically) and not just the left or the right channel. To produce stereo, the "difference" between the L and R signals (L - R) is derived electronically at the broadcasting station and is used in turn to modulate a subchannel with a frequency of 38 kHz (see the block at the right of the diagram in Figure 1). This L - R modulation is embodied in an additional band of frequencies covering 23 kHz to 53 kHz. The 38-kHz subcarrier

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the stereo information gets multiplied by the 19-kHz pilot tone and by the sum (L + R) signal to reconstitute the original, separate L and R program signals.

There is another aspect of two-channel stereo broadcasting that must be considered before we move on to four-channel. There is another signal, having nothing to do with the stereo program material, that is sometimes broadcast along with the stereo signal. This signal, based on a subcarrier frequency of 67 kHz, is used to transmit material such as the background music often heard in restaurants, hotel lobbies, and other public places. Permission to use this capability, which is commonly referred to as SCA (Subsidiary Communications Authorization), was given to FM station operators in the mid-Fifties. It is, of course, another source of income for the stations that use it, and it can readily be seen that for that reason it had to be included as a factor in the choice among several competing stereo FM broadcasting systems in 1961. And, unfortunately for the audiophile, it is just as certain to be a prime consideration in the adoption of any discrete broadcasting system proposal in the future.

Let us, then, examine one of these four-channel FM proposals to get some picture of just what is entailed. The first compatible (a broadcast signal receivable as one channel, two channels, or four channels) system proposed for quadraphonic broadcasting was developed by Louis Dorren, a California engineer who formed a company called Quadra-cast, Inc., and then, following normal legal procedure, petitioned the FCC to approve his system-channel assignment. The first compatible (a broadcast signal receivable as one channel, two channels, or four channels) system proposed for quadraphonic broadcasting is illustrated in Figure 1 for stereo. The main-channel audio signal, the 19-kHz pilot tone, and the 38-kHz-centered modulation of conventional two-channel stereo remain. To provide the back channels there is also an additional "set" of modulation information centered on the 38-kHz frequency; it can be electronically separated from the first "set" during reception since its phase has been shifted by 90 degrees (see Figure 2) at the transmitter.

Elementary algebra dictates that if you want to solve for four "unknowns" (in this case, the four separate channel signals: left front, left back, right front, and right back), then you must have four separate equations expressing different relationships between them. Accordingly, still another subcarrier (equation) must be added to the three we already have. This one is at a frequency of 76 kHz (convenient, because it is a multiple of 38 kHz and can therefore be "locked in" at the receiver by means of the same 19-kHz pilot tone used to reconstruct the 38-kHz carrier).

The audio signals applied to the four available elements of the composite broadcast signal are:

1. LF + L_R + R_L + R_R is applied to the main channel. Again, as with stereo, there is full monophonic capability. A listener to a mono radio hears the sum of all four channels.
2. LF + L_R - (RF + RB), or the difference between the right and left sides, is applied to the first (stereo) subcarrier as modulation. A present-day stereo receiver would recombine this signal with the main-channel sum signal to feed LF + L_R (all left-side information, front and back) to the left-position loudspeaker, and RF + R_R (all right-side information) to the right-position loudspeaker, thus yielding full two-channel stereo capability.
3. The audio information applied to the 38-kHz subcarrier that is shifted in phase by 90 degrees would be LF - L_R - R_F + R_B (in other words, front minus back), while that applied to the 76-kHz subcarrier would be LF - L_R + R_F - R_B. This part of the signal, needless to say, would be ignored by mono and two-channel stereo receivers. (Actually, the matter of which of these two signals is assigned to which subcarrier is not crucial to the operation of the Dorren system—channel assignments have, in fact, been interchanged from time to time during the development of the system.)

A quadraphonic receiver or decoder designed for this system would, after recovering these four
groups of audio information, electronically manipulate all four of them—in an algebraic fashion, to be sure—to recover the values of the separate Lf, Rf, Lr, and Rr signals, each as fully separated from the other as they were in the original discrete tape or disc.

Complicated as it is, the system works. It has been tested experimentally over the air (with FCC permission) by radio station KIOI in San Francisco. At first glance, one might wonder why the system was not given instant approval by the FCC. Well, for one thing, it happens that the SCA "Muzak" subcarrier mentioned previously has been displaced from its current 67-kHz position and moved up to about 100 kHz. Would its presence (and that of the 76-kHz subcarrier components) interfere with adjacent FM channels? If so, how badly? How much more noise would be introduced through the use of such a wide-bandwidth system? And what will Muzak and other background-music operators say about having to modify or replace thousands of specialized leased receivers? (But you already know the answer to that last one!) These and other technical ramifications comprise the subject matter being studied by the NQRC in relation to the Dorren system as well as the other systems thus far proposed.

Generally speaking, the "other systems" (those advanced by G.E., RCA, Motorola, Zenith, and Radio Programming/Management) are similar to that proposed by Quadracast. Each attempts to solve one or more of the problems cited in connection with the Dorren system by introducing variations on that basic theme. The RCA system, for example, suggests a modified three-part signal composite that would result, they claim, in much better channel separation than is possible with any matrix system but which would not encroach on the "air space" of the SCA operators or raise problems of "out-of-channel" interference—all of which would be done simply by omitting the 76-kHz subcarrier—the "fourth equation," so to speak.

Zenith suggests leaving the 67-kHz SCA service where it is, utilizing only the upper modulation sideband of the 76-kHz carrier (see Figure 2) and introducing a second pilot tone at 76 kHz in order to synchronize the upper sideband properly in the tuner or receiver. Since the frequency spectrum of the modulation would then cover only the frequen-

![Figure 2](image-url)

*Figure 2:* The additional frequency "space" necessary for broadcasting four discrete channels is shown at left. Except for the relocation of the SCA signal, the system shown is compatible in the sense that normal mono and stereo reception is provided for FM receivers not set up for quadraphonic reception. SCA receivers, however, would have to be modified to accept a 100-kHz signal.

Leonard Feldman is a well-known engineering consultant and an authority on stereo FM. His most recent article for *Stereo Review* (June) described tests of indoor FM antennas.
The authoritative mistress of three repertoires

By Robert Connolly

The aloof operatic prima donna with her private railroad car and large retinue of servants belongs to history. Today it is sometimes possible to spot a Metropolitan star arriving at Lincoln Center by subway, and a couple of seasons ago, when one of America's greatest singers gave a recital at a university auditorium, her children were outside the entrance selling Girl Scout cookies. The danger in all this down-to-earthness and loss of glamour is that the singer will appear somewhat less than divine on stage and will fail to convince us that she is an empress or an irresistible courtesan. One opera star, however, who manages to have her feet firmly on the ground and yet remain, both on stage and off, an unmistakable Presence is the French soprano Régine Crespin.

Seemingly blessed with all the attributes necessary for a great career and for enjoying life, she has an ample supply of voice, beauty, intelligence, and stamina, a command of languages and styles, a sense of humor, self-confidence, and a wide range of interests. Other sopranos have sung the French, German, and Italian repertoires, but Crespin is unique in that she brings a high degree of authority to all three. She is a brilliant actress, and even when she is off-form and sings badly (she has been known to do that on a grand scale, too), she never ceases to dominate the stage or to hold the audience's interest and attention.

Chatting with Mme. Crespin over cocktails at the hotel where she was staying during a recent visit to New York, I asked her why there are so few outstanding French singers today, why she is the sole ranking French diva on the international scene. She smiled and replied, "I have been called the Joan of Arc of French vocalism—I hope I don't meet her fate, though for a while I considered making an album of immolation scenes!—but we do have many good voices in France and our share of great artists. There are, for example, Guy Chauvet, Alain Vanzo, Gabriel Bacquier, and Mady Mesplé. And we have good teachers too. However, if you think about it," she continued, "we have very few great operas to export. Thus there is not really a great demand abroad for French singers to perform them. And since other countries rarely invite our singers to appear in Italian and German operas, they don't bother to learn those languages."

But Mme. Crespin bothered to learn both and to learn them extremely well. The world had just about concluded that great French voices were a thing of the past when in 1958 she appeared at the Bayreuth Festival as Kundry in Parsifal, displaying a large, opulent soprano voice of lovely timbre, with just enough edge to it to give it dramatic thrust. At her La Scala debut in Milan the following year she accomplished the not inconsiderable feat of breathing real dramatic fire into the revival of Ildenbrando Pizzetti's Fedra, a painfully and work from 1915 with a high-flown libretto by Gabriele d'Annunzio. She was billed as Regina Crespin and sounded so good that it was taken for granted she was Italian. Then, in 1962, she made a triumphant debut as Tosca in Chicago and a month later made her Metropolitan debut as the Marschallin in Der Rosenkavalier, and America had its first French diva since Lily Pons. These triumphs in the opera house were followed by a memorable series of song recitals. Mme. Crespin's interpretations of Wolf and Schumann were surprisingly idiomatic, and I venture to say that this country had never heard the songs of Debussy and Poulenc sung with such sumptuous tone combined with such total stylistic authority.

Her recordings document Mme. Crespin's versatility. The Angel catalog includes her performances of Poulenc's Stabat Mater and Les Dialogues des Carmélites and excerpts from Berlioz's Les Troyens. Her albums on London Records include a song recital, a collection of Italian arias, Berlioz's Nuits d'Été coupled with Ravel's Shéhérazade, and "Prima Donna from Paris," a two-disc set of French arias and operetta selections. ("I have never sung operetta on stage," she says, "and it might be nice for a change because in my usual repertoire I seem always to be killing someone."

Since critics in London, Paris, Berlin, New York, and elsewhere have hailed her as the natural successor to Lotte Lehmann as the Marschallin in Der Rosenkavalier, and since her interpretation of the role is recorded in a disc of excerpts conducted by Silvio Varviso and in a complete version conducted by Sir Georg Solti (both on London), I thought Rosenkavalier might be her favorite opera. But when I asked, she said, "My favorite opera? Les Troyens! The music is so beautiful, and it has many lovely arias. I sang it in San Francisco, and it was such a success that we repeated it the following season. That was an abridged version performed all in one evening. Last year the Boston Opera Company presented it complete, in two evenings, conducted by Sarah Caldwell. I sang Dido, and although I have been singing this opera for a number of years now, Miss Caldwell opened my mind to new things in the score. She was the first woman conductor I had ever sung for, and she was marvelous to work with. Imagine her courage in attempting such an ambitious work on a small, poorly equipped stage. Now that it has been done complete in America, I think we should return to a cut-down version. Les Troyens is a masterpiece, but it contains some rather lengthy dull passages. Berlioz didn't really know how to construct a work for the theater. He wrote one scene and then another and then another, and they are not all of equal quality. In San Francisco I sang both Cassandra and Dido, and when people asked why I was so eager to appear in Les Troy-
ens. I answered that it is the only opera I know of in which I can die twice on stage.

"Like Dido, Tosca is also a marvelous part with a variety of moods and emotions. Carmen? I'm not so sure. I had been asked to record it, and didn't want to consider it until I had performed the role in public. So I accepted an engagement to sing it in Miami, conducted by Alain Lombard, and I think it went well. But I'm still not sure about that role. Yes, the soprano has some fine arias, but then Micaëla comes along with a very effective scene, and Don José sings the Flower Song, and there's the big baritone aria. A marvelous opera I would love to do is Gluck's Iphigenia in Tauris. Meyerbeer? I don't like him. It's old-fashioned and bad music, and ridiculous besides. Actually, my next role is always my favorite."

One of the Wagnerian roles for which Mme. Crespin is especially famous is Sieglinde in Die Walküre, which she recorded for London in the complete Ring conducted by Solti. But in the Deutsche Grammophon recording conducted by Herbert von Karajan, she sang the heavier role of Brünnhilde. I asked whether assuming such a heroic part had had any noticeable effect on her voice and her singing of lighter roles. "No. Aside from the recording," she said, "I sang only six performances of it, and that is not enough to change the voice." As we continued to discuss Wagner, she commented, "Actually, the first opera I ever saw was Lohengrin in Nimes, where I grew up (although I was born in Marseilles). If I had to name a favorite singer, I suppose it would be Krysten Flagstad. I heard her in person. I also admire Frida Leider, but I know her only from records. Another great Wagnerian soprano was my compatriot Germaine Lubin."

The mention of Marseilles, which is practically an Italian city, made me wonder whether Mme. Crespin had grown up speaking Italian as well as French. The liner notes for several of her records mention that her mother was Italian. "No, the liner notes are wrong," she said. "My grandmother was Italian. We spoke only French at home." Since she expresses herself so freely in almost flawless English, I asked how she had acquired such fluency in that language. "I had a few years of English in high school, like everybody else, but you know what that means—just memorizing grammar rules. That," she said, pointing to the TV set, "was my real teacher—American television."

Unlike many Europeans—especially French visitors to the United States—Mme. Crespin spends little time bemoaning what is wrong with America, but dwells on its positive aspects. She even likes the food here, and asked to name her favorite French restaurant in New York, she replied sensibly, "Why should I go to a French restaurant here? No, I go to the Couch House in Greenwich Village. Everyone knows you have great steaks in this country, and theirs are especially good. And they have all kinds of wonderful Southern specialties—black bean soup, black-eyed peas, and pecan pie."

She is surprisingly well versed in American popular music. "I love your Aretha Franklin and Nina Simone, and I would like to hear Blossom Dearie in person. I saw Sammy Davis in a night club a year or so ago, and he was just marvelous! I couldn't believe it! My friends all said, 'Oh, you're exaggerating!' But no. you have to be a singer and entertainer yourself to see everything that man is doing."

Asked for an opinion on her American colleagues in opera, she said, "I admire them because they are so well trained, so well prepared, and so versatile." She thought being born in the United States, a country without its own specific operatic tradition, was not a handicap. "The lack of tradition can be an advantage. You can be free. America has a great, a fantastic Pelleas in George Sherry, I also heard him sing a beautiful L'Heure Espagnole in Buenos Aires. And Grace Bumbry as Venus at Bayreuth—she was sensational! And Sherrill Milnes, what a marvelous baritone! I once saw him perform in Cavaliera and Pagliacci with Richard Tucker, Franco Corelli, and Bumbry, and Milnes quite stole the show. He was tremendous!"

From performers, our conversation shifted to audiences. "There is a marvelous audience in Buenos Aires. I have my own Mafia there. They gave me a medallion inscribed 'To Régine from her Mafia.' Audiences in Germany and Italy are good, though the Italians are a bit provincial. They want mainly voice, voice, voice. In France, there is a small, but expert, audience of opera-lovers, and the public in general there is very finicky and blase. American audiences are more open and more enthusiastic than most others. But Buenos Aires is fabulouls. "I see many young people at the opera and at concerts in France and in this country and even more in Germany, but I was surprised at the great numbers of young people who came to my performances on a recent Oriental tour. When I was invited to make the tour, I asked my manager whether audiences in Seoul or Tokyo were really interested in French art songs. Schumann, and the usual recital literature. He said, 'Just wait. You'll see.' And I did. They are not only interested, they have studied the repertoire seriously and compared various recordings. After my recitals, many came back and asked me detailed questions about minute matters of phrasing. They are really having a love affair with Western music."

"In France the audience for recitals is smaller than in the United States, but we have had great success with a series of early, one-hour recitals, from 6:30 to 7:30. Violinists, pianists, and singers have participated, and it works very well. A member of the audience has a glass of wine at 6:00, then the recital begins at 6:30 and lasts an hour without intermission, and that's almost as much music as one gets in an ordinary recital. I did five of these in Paris on consecutive evenings, and the audiences were quite varied in age and class—students, businessmen, and sometimes even women who had been shopping came with their shopping bags. I've discussed such a series here, but nothing has been decided definitely."

Mme. Crespin is not scheduled to return to this country until next May when she will perform in The Damnation of Faust, conducted by James Levine, in Cincinnati. Ironically, during the season that the Metropolitan is presenting her favorite opera, Les Troyens, she is fully booked in Europe, making a new recording for Angel (arias by Gluck, Massenet, and Gounod) and performing such works as Parsifal and The Damnation of Faust in Paris. "As you probably know," she said, "we have had great trouble with opera in Paris in recent years. Now the problems with the labor unions have all been solved. The Opéra-Comique is being turned into a kind of Juilliard School—I'm not sure that's such a good idea, but it was not a particularly good theater acoustically. The Opéra reopened in the season of 1971-1972, and we have a new director, Rolf Liebermann from Hamburg, and if we don't succeed this time... phff!!"
Puccini's last opera, Turandot, a flawed but nevertheless irresistible work, has always appealed to the adventurous impulse in record producers, for there are two big soprano parts that demand artists of sharply contrasting personalities and vocal timbres, and this gives them an unusual opportunity to match a pair of reigning divas before the microphone—a feat infinitely more difficult to arrange (for a number of reasons) on the opera stage. Thanks to such adventurousness in the past, we have had the recorded confrontations of Maria Callas and Elisabeth Schwarzkopf in 1957 (Angel 3571), Birgit Nilsson and Renata Tebaldi in 1959 (RCA 6149), and Nilsson again with Renata Scotto in 1965 (Angel 3671). And since the ambition of record producers knows no bounds, we come now to the combination of Joan Sutherland and Montserrat Caballé in a new London recording of the work. It is perhaps the most venturesome of them all, for it presents Joan Sutherland in a role that is totally different from the florid repertoire with which she has been generally associated. There is so much predictable casting these days that I would be tempted to praise London's effort on the strength of this bold stroke alone. Happily, I can go much farther than that: this Turandot, aside from being a great personal triumph for Joan Sutherland, may well be the operatic recording of 1973.

What Sutherland has accomplished is the revelation of the formidable Princess in a new light: less icy, less remote, and decidedly more human. The cruelty is there, but her poignant narration of the entrance aria "In questa reggia" points up the fear and vulnerability that lie at its core. The abiding tonal warmth in that crucial first aria, the sensitivity of phrasing, and the absence of the unyielding tonal steel we remember from other Turandots make the change in character in the third act somewhat more believable (if it is still not entirely convincing, that is a basic flaw of the opera itself, and beyond the means of even a Sutherland to mend). For me, Joan Sutherland has set a new standard for Turandot: her dramatic insights are intelligent and unexpected in this role, and they are supplemented by a vocal excellence that is less surprising, perhaps, but no less remarkable. The cruel tessitura is managed with total security, the attacks are direct, the intonation is virtually flawless, and the long lines are shaped with a command of unbroken legato that frequently borders on the incredible. I have never admired Sutherland so much as I did while I was listening to this recording.

This remarkable Turandot has a worthy partner in the Calaf of Luciano Pavarotti. He does not command the sheer visceral impact of Franco Corelli (whose Calaf is perhaps his best recorded achievement), but his singing is subtler, more sensitively
modulated, and reveals a melancholy element that is very attractive. Although Pavarotti is at his best in the lyrical passages (not only in both arias but also in the tender “Mio fiore mattutino! Mio fiore ti respiro” scene of Turandot’s submission), he matches Sutherland thrillingly in the Riddle Scene.

In overall impact, Montserrat Caballé’s Liù does not equal Renata Tebaldi’s for heartrending pathos, but it is full of cherishable nuances, such as the exquisitely floated phrase “mi hai sorriso” in her first exchange with Calaf, or the breathtaking ending of the aria “Signore, ascolta.” (I wish only that a couple of intonational lapses in the aria had been corrected.)

The extravagance of London’s casting offers the absolutely magnificent Timur of Nicolai Ghiaurov, whose presence dominates his scenes as though he were the opera’s central character; three very fine Ministers, headed by baritone Tom Krause in top-notch vocal form; and, in an inspired bit of casting, Peter Pears as an Emperor who sounds appropriately ancient without being afflicted with any of the grotesque overtones frequently imparted to the role.

Conductor Zubin Mehta favors broad tempos which, except for the beautifully detailed but somewhat fussy “Perchè tarda la luna” chorus, I find effective. There are many internal signs pointing to a painstakingly prepared performance: the scene with the three Ministers is exquisitely balanced, the difficult choral passages are consistently well handled, the orchestral tone is sumptuous, and the rhythmic accentuations are crisp and cleanly delineated. The conductor also deserves praise for restoring a traditional cut in the scene of the Ministers.

My only technical reservation is that Pavarotti appears distantly miked in his opening scenes, though it is possible that the imbalance is caused by Ghiaurov’s overpowering presence. The sound otherwise is superb from the first portentous notes of the orchestra onward. In all, a really splendid production, the best Turandot ever available on records.

George Jellinek

PUCCINI: Turandot. Joan Sutherland (soprano), Turandot; Luciano Pavarotti (tenor), Calaf; Nicolai Ghiaurov (bass), Timur; Montserrat Caballé (soprano), Liù; Peter Pears (tenor), the Emperor; Tom Krause (baritone), Ping; Piero de Palma (tenor), Pang; Pier Francesco Poli (tenor), Pong; Sabin Markov (baritone), a Mandarin; others. John Alldis Choir; Wandsworth School Boys’ Choir; London Philharmonic Orchestra, Zubin Mehta cond. LONDON OSA 13108 three discs $17.94.

ASHKENAZY ESSAYS
THE BEETHOVEN CONCERTOS

All crucial elements are in perfect balance for a bracing interpretation of the cycle

LONDON has just given us one more set of the complete Beethoven piano concertos, bringing to an even dozen the integral versions of the cycle listed in the current Schwann Record and Tape Guide. Considering all the crucial elements to be balanced in undertaking this prodigious challenge—interpretation per se, compatibility of soloist and conductor, quality of orchestral support, recorded sound—I find the new combination of Vladimir Ashkenazy, Georg Solti, the Chicago Symphony, and the London engineering staff the most satisfactory of the whole lot.

I will freely reveal my interpretive bias by saying that the previous recorded performances I have been most happy with over the years have been those of Leon Fleisher (with George Szell and the Cleveland Orchestra, issued originally on the Epic label but currently available in a Columbia budget reissue), and, of course, the finest of the Artur Schnabel monophonic recordings (done in England with conductors Sir Malcolm Sargent, Issay Dobrov, and Alceo Galliera, and once available as
GRE 4006 in Angel's Great Recordings of the Century series). Briefly, what I look for in Beethoven concerto performances is the combination of a classic discipline in phrase and rhythm combined with a genuinely organic warmth of feeling, and that is the combination I find in the Fleisher and Schnabel performances—and in the Ashkenazy ones as well.

In London's new release, the concertos are laid out in chronological order of composition—that is, with No. 2 preceding No. 1. In the first two concertos, Ashkenazy achieves just the right amalgam of classic refinement and Beethovenian brio, and beginning with the third, he does not hesitate to bend a phrase tastefully or to indulge in a slight touch of rubato that will serve to indicate—not to underline!—the Romantic aspects of the maturing and mature Beethoven. There is, further, an ample sense of will contrasted with tenderness in the reading of the C Minor, an impetuous lyricism and a really terrific slow-movement drama in the G Major (beginning with a wonderfully lovely treatment of the opening solo piano statement), and a splendid proto-Lisztian glitter to the “Emperor.”

It is clear from start to finish that Sir Georg Solti and his soloist have thought through their collaboration down to the finest detail. The Chicago Orchestra responds to Solti's baton with hair-trigger attack and precise articulation of phrase and rhythm. Only occasionally, as in some of the tutti episodes of the G Major, does one feel that things are perhaps being driven just a shade too hard.

There are no complaints whatever about the recording quality: the sound is comfortably full-bodied, amply wide-range, nicely distributed spatially, and ideally balanced between soloist and orchestra. All told, I found this a most satisfactory musical experience—a most positive response, bracing and wholly refreshing, to works both great and greatly familiar.

David Hall


DIANA ROSS, LADY OF THE THEATER

Motown's new “Touch Me in the Morning” captures her elusive live-performance qualities

“ALLURING CHARM and excitement” is the dictionary definition of “glamour,” and it has always been an accurate description of the qualities Diana Ross projects in her personal appearances. On records, however—at least until now—she has always seemed somewhat sketchy and incomplete—one always had to work a bit to keep the physical image in mind as one listened. But her new Motown album, “Touch Me in the Morning,” fills in all those tantalizing outlines perfectly. For the first time she confidently projects that same “charm and excitement” on records, and she does it by purely vocal means. Gone, finally, is that hint of uneasiness, that hesitant note of “Am I really getting through to you?” that has marked her work since the early days with the Supremes.

For Miss Ross does have true glamour. It is an old-fashioned concept, certainly, and one badly in need of rehabilitation after being trampled into near-disreputation by brassy transvestites and the misguided nostalgists of Camp. They associate glamour with ostrich plumes, platinum-blonde hair, and the sultry sass of a Mae West, thus sadly missing the point. Of all the Thirties actresses, Carole Lombard was surely one of the most glamorous, yet she inspires no festivals, no impressionist's take-offs, no imitators, and no posters. She had the good fortune—or sense—to be real, and reality daunts the Camp followers. They will be daunted as well by Diana Ross, who brings that same quality of reality to her work on "Touch Me." Listen as she weaves her sinuous way through All of My Life, or John Lennon's Imagine, and you will find that she is...
not only getting through to you but challenging you to find descriptive language for whatever lies beyond glamour. She is a fine actress too, as she demonstrates with Lorenz Hart's bitter lyrics to *Little Girl Blue*. The song can stop any show, but Ross' reading here is controlled and emotionally discreet, giving off the flickering radiance of a butterfly at twilight, fluttering away a too-short life. A stunning performance.

I used to think of Diana Ross pretty much the way she and the Supremes were caricatured in *Hair*, as one of a trio of black show-biz broads, flakey, funny, and tough. I confess that I was guilty of inattention, and have since come to realize that she is much more than that. Reaching for one of those comparisons "beyond glamour," I can think only of Henry Pleasants' words about Ethel Waters: "She was a lady of the theater. . . ." So is Diana Ross.

Peter Reilly

DIANA ROSS: *Touch Me in the Morning*. Diana Ross (vocals); orchestra. *Touch Me in the Morning*: All of My Life; We Need You; Leave a Little Room; I Won't Last a Day Without You; Little Girl Blue; My Baby; Imagine; Brown Baby; Love the Children. MOLLWS M772L $5.98, © M 8772 $6.95, © M 5772 $6.95.

MOTT THE HOOPLE: *THE LOST IS FOUND*

*A wonderful band in a wonderful album of beautiful rock-and-roll*

As John Sebastian once observed, trying to tell a stranger about rock-and-roll has never been easy. You'll therefore probably just have to take my word that Mott the Hoople's latest album for Columbia, titled simply "Mott," looks as of this writing to be the album of the year, although I'm willing to reserve judgment until I hear the imminent new Stones and Who releases. Further, with its intriguing new lyrical directions and increasing instrumental sophistication, it may be the group's best album as well.

It seems odd at this late stage of the game to say that the group has found itself, but the obvious influences (Procol Harum, the Stones, Dylan) that made them so much fun on their early records have here finally been absorbed to the point that, as a band, Mott now has a style of its own. The lyrics, which are superb throughout, make this clear. Ian Hunter, who is responsible for the majority of them, has taken the band as an entity for his subject matter, creating a diary-like account of their successes and failures, and adopting a variety of poses ranging from the endearing punk strut of *Whizz Kid* to the strikingly honest self-evaluation of *Hymn for the Dudes*. Ultimately, his narrative becomes a metaphorical statement about rock-and-roll itself, and his *Ballad of Mott the Hoople*, a concise capsule history, is both a touching examination of the band and its audience and (perhaps) the finest song about rock anyone has written since Lou Reed.

To all this I can only add that the band, despite the departure of organist Verden Allen, has never played better; that Mick Ralphs (the soul of the group) has added touches of Jimmy Page to his already distinctive guitar work as well as contributing another really fine song and lovely vocal (I'm a Cadillac); that the single Honaloche Boogie is downright classic; and that the whole is stunningly produced. If rock-and-roll has ever meant anything to you, and if you are not already acquainted with this wonderful band, you owe it to yourself to get this album. It's simply beautiful.

Steve Simels

MOTT THE HOOPLE: *Mott*. Ian Hunter (vocals, keyboards, guitar); Mick Ralphs (guitar, vocals); Overend Watts (bass); Buffin (drums); others. *All the Way from Memphis; Whizz Kid; Hymn for the Dudes; Honaloche Boogie; Violence; Drivin' Sister; Ballad of Mott the Hoople; I'm a Cadillac/El Camino Dolo Rosa; I Wish I Was Your Mother*. COLUMBIA KC 32425 $5.98, © CA 32425 $6.98.
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CIRCLE NO. 66 ON READER SERVICE CARD
The Bunkers spend an evening at sometimes I'm Happy: I May Be Wrong; Beautiful Baby; Hey, Look Me Over; Ain't and orchestral accompaniment. Oh, Babe. O'Connor and Jean Stapleton (vocals); piano ARCHIE AND EDITH: Side by Side. Carroll

POPULAR DISCS AND TAPES

Reviewed by CHRIS ALBERTSON • NOEL COPPAGE • PAUL KRESH • PETER REILLY • JOEL VANCE

ARCHIE AND EDITH: Side by Side. Carroll O'Connor and Jean Stapleton (vocals); piano and orchestral accompaniment. Oh, Babe, What Would You Say? Medley: I'm Sitting on Top of the World; You Must Have Been A Beautiful Baby; Hey, Look Me Over; Ain't We Got Fun? I Remember It Well. Medley: Sometimes I'm Happy; I May Be Wrong; When I'm Sixty-Four; It's a Wonderful World; and thirteen others. RCA APL 1 0102 $5.98, ® APS 1 0102 $6.95, ® APK 1 0102 $6.95.

Performance: Happy evening in Queens Recording: Very good

The Bunkers spend an evening at their upright—with far more bearable results than you might expect. Archie, now a fixture of our national life as the country's most "lovable" bigot, gets comfortable with a beer and his kazoo, and he and Edith settle down for a curious recital spangled with the kind of side remarks—reactionary wisecracks from Archie and adorable inanities from the wife—of the kind we have come to expect from them.

But the singing is a pleasant surprise. Recalling their courtship in Depression days, the pair alternate in runthroughs of such thickly nostalgic perennials as Sometimes I'm Happy, You Must Have Been a Beautiful Baby, and I'll Get By. The fact is that Carroll O'Connor, who has done solo stints on the nightclub circuit and whose performance in the TV version of Of Thee I Sing last year was one of the few unembarrassing things about it, has a good voice and knows how to use it. I was disappointed only when on occasion he was so intent on displaying his vocal prowess that he stepped almost entirely out of character. Jean Stapleton, on the other hand, who made an easy-to-take, entertaining album

BLOOMFIELD, HAMMOND, DR. JOHN

MIKE BLOOMFIELD, JOHN PAUL HAMMOND, AND DR. JOHN: Triumvirate. John Paul Hammond (vocals, guita), harmonica); Dr. John (piano, organ, guitar, banjo, percussion); Mike Bloomfield (lead guitar); Fred Staehle (drums); Chris Ethridge (bass); other musicians. Cha-Doopy-Doo, Last Night: I Yi Yi: Just to Be with You, Baby Let Me Kiss You; and four others. COLUMBIA KC 32172 $5.98, ® CA 32172 $6.98, ® CT 32172 $6.98.

Performance: Tasty Recording: Very good

John Paul Hammond made records in the early Sixties for Vanguard as John Hammond: he was one of the first, along with Tom Rush, to commit the folkie treason of doing Chuck Berry and Buddy Holly songs, while Phil Ochs and Dylan were vying for both the Keeper of the Conscience Award and an all-expense-paid weekend in Woody Guthrie's hospital room. Hammond, who is white, always sang black—which would be a retroactive sin these days—but, as Dave Van Ronk once said to a prissy purist of undetermined pigmentation, "What the hell am I supposed to sing One Kind Favor like—Perry Como?" Hammond's technique is to sing with the accent on the black—which would be a retroactive sin these days—but, as Dave Van Ronk once said to a prissy purist of undetermined pigmentation, "What the hell am I supposed to sing One Kind Favor like—Perry Como?" Hammond's technique is to sing with the accent on the black—which would be a retroactive sin these days—but, as Dave Van Ronk once said to a prissy purist of undetermined pigmentation, "What the hell am I supposed to sing One Kind Favor like—Perry Como?"

At any rate, Columbia has decided to build John Paul up by association (he had a previous album that went nowhere), teaming him with guitarist Mike Bloomfield and Dr. John. The liner notes say that it almost didn't work, the personality clashes being too great, but that it all came right in the end. Well, it did. Hammond's vocals are tasteful and true. Bloomfield either delegates himself to the position of sideman with the best of grace or simply doesn't try that hard. The album really belongs to Dr. John, who, in addition to providing his rich keyboard work, arranged the numbers and—I suspect—had a good deal to say about the selection of material. This is a pleasing and civilized album. It does not astonish but it is not presumptuous. There is much good to be said about albums which are made up of hors d'oeuvres, and this one is tasty.
BONNIE BRAMLETT: Sweet Bonnie Bramlett. Bonnie Bramlett (vocals); orchestra. Good Vibrations: Celebrate Life; Rolling: Crazy 'bout My Man; Singer Man; and five others. COLUMBIA KC 31786 $5.98, © CA 31786 $6.98, © CT 31786 $6.98.

Performance: Loud Recording: Good

Ms. Bramlett’s charm continues to elude me. Even back in her days with Delaney she struck me as an artificial performer. She still shouts at any given opportunity, grows on cue with simulated passion, and bears down relentlessly with the nitty-gritty when neither a nitty nor a gritty is called for.

In that the cover photo shows Bonnie Bramlett holding a shotgun, I’d like to make one thing perfectly clear: Noel Coppage—got that? C-o-p-p-a-g-e—wrote this review.

P.R.

RANDY BURNS AND THE SKY DOG BAND: Still on Our Feet. Randy Burns (vocals, guitar); Matt Kastner (electric guitar); David Tweedy (keyboards), Bruce Samuels (bass); David Mann (drums); A. J. Mulheren (vocal harmonies, percussion). Radio Song; Waverly Road; Mary Ann; Time of Parting; Pick the Saddest Song; Babe’s Blues; and six others. POLYDOR PD 5049 $4.98.

Performance: Good Recording: Good

Remember 1969 and earlier? There was a lyricism, a romanticism. about rock then that is conspicuously absent now. The Sky Dog Band is more sibille about lacking it than some other bands, but you can hear in this album (and see in the cover illustrations) a mica-thin glaze of calculated ugliness. There’s just a suggestion of the beer drinker affecting coarseness in order to react against what he takes to be the pot-smoker’s affected gentleness (I use these orally fixated cultural symbols advisedly: the band is shown boozing on the cover of this one, and I did read recently of a study that indicated the most serious alcoholic problems nowadays are among people in their early twenties). It is in the indirect ways, through cover illustrations, the very name of the band, and melodies and arrangements—not through such a direct thing as lyrics—that all the hints are planted.

The Sky Dog Band is, of course, an effect, not a cause, of this ugliness—and not even a blatant effect: they are solid musicians and seem to have respect for their material, which often deserves it. Randy Burns is a good singer who has regular, but not troublesome, lapses often deserves it. Randy Burns is a good singer.

RALPH COHEN: Love Songs. Ralph Cohen (vocals, guitar). Bob Johnston (organ, guitar, harmonica). Ron Cornelius (guitar); other musicians. Minute Prologue; Passing Through; You Know Who I Am; Nancy; Story of Cohen’s one-dimensional vocals can be, and have been, helped considerably by the accessories available in a well-equipped studio. I would recommend this album, but I would suggest that Cohen at his best could help you clean out some of that stupid “happiness” that the boogie-mongers rammed into your system. He really can handle the language, when he applies himself, and the critics who habitually put the biggest weights in quotation marks when speaking of Cohen’s efforts are being just plain arrogant. If he really has quit, he’ll be missed. This album, if it passes on to oblivion, won’t be.

EUMIR DEODATO: Donatodeodato. Eumir Deodato and João Donato (keyboards); orchestra. Capricorn; You Can Go, Whistle Stop; and three others. MUSE 5017 $5.98.

Performance: Fair Recording: Good

This album is an object lesson: beware of anything-labeled “historic.” “A historic fusion of Brazilian rhythm & American jazz,” reads the banner. No way. Eumir Deodato seemed more than promising in his first album, with a truly unique feeling for the possibilities of the electric piano. Now, with João Donato also at the keyboards, he has given us a recording that is almost total horeum. The only “fusion” that I hear is a big-band sound—years-old—blended with the chick-a-boom-chick-a-chook that has hounded us for years in commercial “Latin” recordings. It’s a waste of time and, obviously, a waste of talent. P.R.

MANU DIBANGO: Soul Makossa. Manu Dibango (contrabass, guitar). New Bell; Soul Makossa; Live; and four others. ATLANTIC SD 7267 $5.98, © M8 7267 $6.95, © M5 7267 $6.95.

Performance: Tedious Recording: Good

In the wake of a hit single there often follows an album that sadly demonstrates the artist’s limitations. This album is a case in point. Manu Dibango is a saxophone player from Cameroon who combines in his music sounds of his native Africa with elements of Western electrified music as developed from rock and jazz by the Miles Davis school. The result is a bastardized bore that we would have been spared but for the success—for first in Europe, then here—of Soul Makossa, a good disco-trque track.

FAITH. Faith (vocals and instrumentals). Freedom; The Last Song; Lookin’ for a Friend; and five others. BROWN BAG BB-LAO 85F $5.98.

Performance: Can Hope and Charity be far behind?

Recording: Good

“This recording is A Good Knight Production,” reads a note on the back of this album. Which means that Terry Knight, who brought us, among other things, the Mom’s Apple Pie cover, is in charge. Also there is posted a “WARNING: It is expressly prohibited to copy, duplicate or reproduce this recording or artwork in any manner or form.” I don’t think Mr. Knight has a thing to worry about.

Faith’s cover shows a five-person group with their backs to the camera. Just as well. If I were responsible for what goes on in this album I don’t think I’d want to be identified.

(Continued on page 82)
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either. It is the mildest kind of rock played, and assertedly sung, by a group that is about as convincing as some of the Watergate testimony. Knight's computerized approach to the rock scene has never been more obvious.

This is a deadening, deflating record, which was probably overproduced out of necessity since there is no audible talent—an other example of the pop grandiosity of those who think they can make stars out of anyone they choose if they play all the angles right. With 'really true' exceptions, the public chooses its stars, and the no-talents who do slip through at times find their comet fizzling out without leaving even a brief trail. Get ready for a crash.

JOSE FELICIANO: Compartments. José Feliciano (guitar and vocals), orchestra. I'm Leavin'; Sea Cruise; Don't Fail; Simple Song; Peace of Mind; and six others. RCA APDI 0141 $5.98, © APSI 0141 $6.98. © APK 1 0141 $6.98. © APTI 0141 $7.98.

Performance: Good
Recording: Excellent

Clever packaging and superb recording techniques don't save Feliciano's newest album from tettering just this side of total boredom. He is still the performer, but this record is so airless, so glossy, and so predictable that you might as well listen to a 60-Hertz tone for comparable excitement. Me and Baby Jane is the only track that manages to work up any guitar-voice commotion, and even that is the lightest shade of pale compared to his earlier work. Feliciano and his management ought to take a long look at what he has been doing recently. He is turning into a hack: after his brilliant start it seems that each new release is worse than the previous one. The talent is still there, but the means of presenting it have calcified into rote.

This is a depressing album, if for no other reason than it is evidence of great gifts being squandered.

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CIRCLE NO. 47 ON READER SERVICE CARD

Peter Frampton looks like some rock star's mini-bike menace of a little brother, but in fact he's a chap of some standing among electric guitar players. Here he shows off his clear, clean style and also proves to be a pretty good vocalist. The album could be a sleeper. Bringing the vocals up where we can hear them and leaving plenty of holes for the other instruments, particularly Mick Gallagher's keyboards, Frampton has produced an album of solid instrumentation, good rock understandings, and generally passable songs. I doubt if any of the material is quite strong enough to give the band a real launching just yet—but for the Yvonne Wright-Stevie Wonder song I Believe (When I Fall in Love with You I Will Be Forever), and I can't see it getting that much play again so soon. But the band is establishing its credentials here—even getting feisty with song titles about sugar and fading away—or if it can survive the extra-musical rigors through another album or two (indeed, if it hasn't fallen into the normal pace of rock-band evolution and disbanded by the time this is printed), it could go about attracting attention, hoisting eyebrows, and paying out a lot in taxes.

RECORDING OF SPECIAL MERIT

JOEL GREY: Joel Grey Live! Joel Grey (vocals) Walnut St. Players, orchestra. King of Love, or the blessings of "Let's be clean," in King of Love. Gee, I really is no allusions to passing phenomena, telling the customer how "terrific" it is. Mr. Grey, after all, is the son of comedian Mickey Gray, and if he knows anything it's how to hold an audience in the palm of his hand. But he's also such an alert and appealing fellow that he...
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scarcely needs these tricks to put over his act. Hearing him sing "Rumania, Rumania" in unabashed Yiddish is breathtaking and show-stopping. His "Doodle Doo Doo" is a study in hanging loose that could be the envy of far younger men (Grey is forty now.) At one point there's an Anthony Newley medley made of numbers like "Once in a Lifetime" and "What Kind of Fool Am I?" Mr. Grey knows them well because while he was waiting for that Big Break he was always taking over Newley's roles in musicals after the star gave them up. Actually, I would rather hear Mr. Grey sing one of Mr. Newley's songs than Mr. Newley. Well, here is charm, agility, and professionalism to spare all in one neat, natty package. A winner, and a deserving one. P.K.

THE GUESS WHO: #10. The Guess Who (vocals and instrumentals). Take It Off My Windows of the World; The Look of Love; Ellie's Love Theme; Use Me; Do Your Thing; and eight others. ENTERPRISE ENS 2 5005 $9.98. © EN8 2 5005 $9.98. © ENC 2 5005 $9.98.

Performance: Showbiz
Recording: Good

I don't understand the current ecstatic gurrring over Isaac Hayes any more than I do that for Curtis Mayfield. Hayes was once a fine songwriter and an engaging performer, but he is now just too showbizzy for my taste. He was the first black composer to win an Academy Award, and he certainly deserved it for "Shaft"; his contribution was the only good thing about that cheapjack, Crow Jim movie. But Hayes' Oscar has been translated by his yen-sayers into part of his packaged living legend, down to his offstage nickname, "Black Moses." Unfortunately, in trying to make Feet. Dan Hicks (vocals, guitar). Sid Page (vocals, mandolin): John Gitron (guitar, dobro). Naomi Eisenberg (vocals, violin). Maryann Price (vocals): Jaime Leopold (bass); Bob Scott (drums). Cowboy's Delight: Mr. 19. Lonely Madman: My Old Tinsie Baby: Vivando: Success: Cheaters Don't Win: Payday Blues: I Asked My Doctor: Sure Beats Me, and others. BLUE THUMB BTS 51 $5.98. © M 851 $6.98. © M 551 $6.98.

Performance: Awww...
Recording: Mighty nifty

Yeah, they're great, but when are they going to stop cloning around and play something? "Last Train" is less diversely ornamented (even somewhat funnier) than the last Dan Hicks album, with one eight-beat diry after another merrily chucking out its lyrics on the order of: "I got the elation, hesitation, dissipation, emancipation, propulsion..." What Kind of Fool Am I?" (should be nine tweets in there), and goes through the same routine with mouse, cat, dog, and so forth, and says when you put it all together it's a "European Whale." When the group does try to pull itself together and sound serious (in, for example, Success), that cultivated punch-line-around-the-corner quality just won't get out of the vocals.

All and all, gosh darn it, this record is good fun, too suibre to be called a luff-riot—maybe a (chuckle) breach-of-the-peace—and guaranteed to cheer up anyone except very grumpy in-laws. I suppose we can always find more music somewhere else, even if we can't find many bands this well qualified to play it. N.C.

NICKY HOPKINS: The Tin Man Was a Dreamer. Nicky Hopkins (piano, vocals); other musicians: Del Newman arr. Sundown in Mexico: Waiting in Vain: Dolly: Speed On; and five others. COLUMBIA KC 32074 $5.98. © CA 32074 $6.98. © CT 32074 $6.98.

Performance: Spotty
Recording: Good

The star system has long been dead in what used to be Hollywood, but in rock-and-roll it flourishes. To provide it with new blood we have our dearer lads and lassies years come to the "sideman album"—a solo outing by a musical cian who is best known for backing up stars. Sometimes this works and sometimes not. Siddens are usually sidemen because they prefer to be and because it pays well. They are in a comfortable position and take no man as their master (a New York or London sideman, playing three sessions over a week's (Continued on page 86)

Shoulers: Musician: Miss Frizzy; Glamour Boy; and four others. RCA APL -1-0130 $5.98.
Performance: Solid
Recording: Excellent

The performance and production on this album are exceptionally good, and the material contains some exciting lines. But the meaning of many of the songs escapes me. From Cardboard Empire, for example, comes: "We sat down at the banquet and the jester danced a reel/The gladiator drew his sword, we knew we were the meal." The opening line of Lie Down is what you call a grabber: "Have a disease-free summer in Asia." Glamour Boy, which puts the knife in "glitter-rock" stars and the large personal-appeal fees they command, advises: "For $37,000 you can look like your sister tonight/For $37,000 I think it'll work out right," and continues, over screaming-crowd sound effects, "Ladies and gentlemen: a warm space-age welcome, if you want to call home. His contribution was the only good thing that begins: "A very hip bird sits in his cage, he sings: 'Tweet tweet tweet tweet tweet tweet tweet tweet tweet tweet tweet tweet'" should be nine tweets in there), and goes through the same routine with mouse, cat, dog, and so forth, and says when you put it all together it's a "Eu-
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Records and Recording Magazine, Great Britain

"One of the world's greatest cartridges," Dealer's Choice, Scotty's Stereo

Sound Magazine, Canada

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High Fidelity, U.S.A.

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Hi-Fi Sound, Great Britain

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"They last a very long time... my first one 12 years", G.M., Hayward, Calif. • "It's 'State of the Art' in performance", D.D., Toledo, Ohio • "The best available", T.D., Utica, N.Y. • "It's fantastic — nothing like it", R.S., N.Y., N.Y. • "Incomparable quality", R.A., Sharon, Pa. • "Made in U.S.A.", H.H., Phila., Pa. • "Your cartridge improved the sound of my system by at least 100 percent", D.D., Riverdale, Md. • "Sounds are clearer, more distinct, really great", L.M., A.P.O., N.Y., N.Y.

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time, can be backing up Paul McCartney, Carly Simon, and John Doe; he gets paid at the same rate for each, and, for reasons diffuse and quirky, often plays better for Doe than for the others).

Nicky Hopkins, who has backed up the Rolling Stones many times, is a fluent, reliable, and facile pianist; judging by Waiting for the Band on this album he is also a more than capable composer. I say "composer" because the interest of this song is in the melody line and the dynamics, not the lyrics, which are generally pretty flat. He also plays a fine Fats Domino-style instrumental (`Pig's Boogie) and generally pretty flat. He also plays a fine Fats Domino-style instrumental (`Pig's Boogie) and generally pretty flat.

A recurring feature of the sideman album is that some of the stars the sideman has played for put in an appearance (in an interview given nearly four years ago, John Sebastian predicted this whole syndrome). Here we have George Harrison (masquerading as "George O'Hara"); Mick Taylor of the Rolling Stones; Bobby Keyes, the by-now indispensable saxist for the Stones (he is somewhere between being a sideman and a regular member of the group); and bassist Klaus Voorman. Harrison plays slide guitar, dispensing what seem to be his standard guest-shot solos and fills. I am an old fan of his, but I begin to wonder if he just doesn't swing. Taylor doesn't do anything amazing, but (as in Harrison's case) that may be in deference to Hopkins as leader of the date. If Hopkins could have come up with more tunes to match the caliber of those cited this would have been a very rewarding album. Maybe next time.

JETHRO TULL: A Passion Play. Ian Anderson (guitar, flute, saxophones), Martin Barre (guitar), John Evan (keyboards); Jeffrey Hammond-Hammond (bass, vocals); Barrie more Barlow (drums, percussion). CHRYSLER CHR 1040 $5.98 © MSC-1040 $6.98, © MSC-1040 $6.98.

Performance: Awfully, awfully, uh . . .

Recording: Very good

Apparently there is a stage play called A Passion Play being presented in England at the Linewell Theatre, with a real author and a cast and program booklet and everything. I say "apparently" because, after listening to the music composed for the so-called play by Jethro Tull, I suspect the whole bloody thing might be a hoax. But then there is the possibility (shudder) that it may be real. And maybe Tull's words and music make sense in the context of the play, but on record they're so shapeless and sprawling that it's hard to tell if they're any good or not. The lyrics are written in the kind of affected stream-of-consciousness style that one associates with student poets and the "beat" writers of two decades past. My guess is that Tull did the words first and then tried to impose music on them.

I find Tull's music in general (and "A Passion Play" in particular) to be clever and sometimes interesting, but too often overlaid with artsy-craftsy jive. And the last thing my dear old grandmother said to me as she lay on her deathbed was, "At all costs, avoid jive." Right on, ma'am.

RECORDING OF SPECIAL MERIT

PAUL KANTNER, GRACE SLICK, AND DAVID FREIBERG: Baron von Tollbooth & the Chrome Nun. Paul Kantner (vocals, guitar); Grace Slick (vocals, keyboards); David Freiberg (vocals, keyboards); Jerry Garcia (guitar); Chris Ethridge (bass); John Barbata (drums); other musicians. Ballad of the Chrome Nun; Fast; Flowers of the Night; Walton; Your Mind Has Left Your Body; Across the Board; Harp Tree Lamp; White Boy; Fishman; Sketches of China. GRUNT BFL1-0148 $5.98 © BFSI-0148 $6.98, © BFK1-0148 $6.98.

Performance: Professional

Recording: Excellent

Here are some scattered disappointments alleviated by a wash of pleasure-relief at hearing a new rock album by musicians who know what the hell they're doing, an increasingly uncommon experience. I rate this one a bit below the earlier Kantner-Slick album, not because David Freiberg contributes anything negative but because that album contained some truly stunning cuts, such as Sunny Colours and Silver Spoons, and this one doesn't. A band with these kinds of resources can certainly ingratiate itself, however, and if the unsprinkled political harangue in Jack Traynor's Flowers of the Night bores you (my condolences if it doesn't), there's still a neat guitar break by Craig Chaquico in it. If Kantner's tendency to confuse chant with melody in, say, Your Mind Has Left Your Body offends your sensibilities, there's still Jack Casady's absolutely zonked-out bass to listen for there.

And Grace's vocals, as wild at ever, are a (Continued on page 88)
THE 800+
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Around with a lot of stylistic territory, singing to "travel where the currents flow" is almost dangerously close to the turf of soul, whipping Whale, with up a commotion in the manner of Janis Joplin. Holman projected when she tackled a torch as her own? When she sings she finally going to pick off the rack and action a few. The only question is, which style is Valley, Bobbie Gentry, and Lynn Anderson, to COLUMBIA of My Life; I'm Bound To Be; $6.98. BARBARA MAURITZ:  

Arthur Park, over Troubled Water, performances, they perform of Paul Simon's don't simper so much about it. The Lettermen is still sweet, but no longer sickly faces look less like molded pink plastic, and more insipid. Now they're a little older, their age music where Andy Williams was Croon-er-in-Chief. Never had group singing sounded more artificial. Now they're a little older, their voices look less like molded pink plastic, and their voices, too, are taking on musical character lines. This album was culled from a two-hour live performance somewhere in or around Hollywood, California, and the fans are as audible as their idols. The sound of the Lettermen is still sweet, but no longer sickly sweet. They still sing about love, but they don't simper so much about it. The arrangements they perform of Paul Simon's Bridge Over Troubled Water. Jimmy Webb's Mac-Arthur Park, and Gilbert O'Sullivan's cheerfully lonesome Alone Again are involved and difficult, but the boys bring them off with a kind of velvet mastery that should earn them new friends beyond the junior high school level. All in all I found this one a pleasant surprise. P.K.  

BARBARA MAURITZ: Music Box. Barbara Mauritz (vocals); instrumental accompaniment. Drop Down Daddy. He Knows What To Do for Me. All the Best of My Life; I'm Bound To Be: and six others. COLUMBIA KC 31749 $5.98. CA 31749 $6.98.  

Performance: Multiple personality Recording: Very good  

Barbara Mauritz looks like a lovely waif and sounds by turns like Jean Baez, Judy Collins, Bobbie Gentry, and Lynn Anderson. to mention one or two. The only question is, which style is she finally going to pick off the rock and wear as her own? When she sings Winter in the Valley, a song about the imminent arrival of bad weather in somebody's love life, there's a throb in her voice a little like what Libby Holman projected to city dwellers and back again, Miss Mauritz traverses an array of stylistic territory, singing Around and Around with a hard rock heat and later gen-
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We believe it's the last loudspeaker in the same sense as the wheel was the last device for transmitting rotary or rolling motion.

Of course, the wheel has been greatly improved since its debut in the Bronze Age. But only in construction. The design itself is unimprovable because it's inherently perfect.

The new Ohm F has the same mathematical finality. It's the absolute loudspeaker, utterly simple and complete. Only its physical makeup can evolve further; the concept is terminal.

The last loudspeaker was invented by a little-understood engineering genius, Lincoln Walsh, who patented it in 1969 (U.S. Patent 3,424,873) and died less than three years later. As exclusive licensees of the Walsh patent, we've spent the past two years developing construction techniques for the invention. The end result is the Ohm F.

The originality and stark simplicity of the Walsh design are apparent at a glance. A single, very steep 12-inch cone, oriented with its apex up and convex side out, is used to reproduce the entire audio range from 30 to 20,000 Hz without crossovers. (Not to be confused with the 2-inch Walsh tweeter made by another company under license from Ohm.)

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No other full-range speaker is a totally coherent sound source, with 360° direct radiation to boot. It's the theoretical ultimate.

The Ohm F comes in a striking, tapered column cabinet, about 3½ feet high, and is priced at $400. (Also available is the $1000 laboratory prototype Ohm A, with an 18-inch Walsh driver that goes down to 20 Hz but requires 350 watts of power.)

As the years go by and the history of the wheel is repeated, the Walsh idea will inevitably filter down to the lowest price ranges. Meanwhile, the Ohm F is here for those who want to be the first to own the last loudspeaker.

Ohm Acoustics Corp., 241 Taaffe Place, Brooklyn, N.Y. 11205.
Lot Better, and his rendering of Curtis Mayfield's 'It's All Right' just proves how good Mayfield was before he decided to get Significant. The band, which is excellent throughout, defers to Rivers' vocals on side one, but on side two they become equal partners, and the musicians really cook on 'Willy and the Hand Jive,' 'Got My Mojo Workin,' 'Over the Line,' and 'Turn on Your Love Light.' This is a very satisfying album.

J.V.

Diana Ross: Touch Me in the Morning (see Best of the Month, page 75)

Leon Russell: Leon Live. Leon Russell (vocals, piano), Don Preston (guitar); Joey Cooper (guitar); John Gallie (organ); Carl Radle (bass); Chuck Blackwell (drums); Black Grass (backing vocals); various others. Mighty Quinn Medley; Shotgun on the Plantation; Dixie Lullaby; Queen of the Roller Derby; Roll Away the Stone; It's Been a Long Time Baby; Great Day; Alcazar; Crystal Closet Queen; Prince of Peace; and nine others. Shelter STCO 8917 three discs $11.98, © 8X2C 8917 $12.98, © 4X2C 8917 $12.98.

Performance: A minor atrocity

Recording: Good

Come-a-runnin', kids; good old Fifties rock-and-roll is being revived once again, and you wouldn't want to miss that. Actually, Leon Russell held this particular revival meeting last year in the Long Beach Arena, but thanks to the magic of greed, which makes it possible for you to buy a copy of every grunt a rock star makes, you can share in this event. The timing is no problem, since Fifties music is routinely "revived" every two weeks, and apparently will continue to be until we're all safely ensconced at the Great Sock Hop in the Sky.

Taping was no problem for Leon during the Long Beach concert, either—he simply found the tempo that Jerry Lee Lewis always used and stayed with it all night long. Aside from the judgment involved in committing that sort of thing to a three-disc album, there aren't more than forty or fifty things wrong with this package.

Before we get too deeply into that, though, let me acknowledge that I've noticed what "Leon Live" spelled backwards is—but the question is, which of us is the yin and which is the yang? I think this album fairly faithfully proves disastrous to assume that rock and roll is being replicated as what intelligent artists and some audiences to pass off records the unspoken conspiracy between those whose need is not for music but for key words, names, trappings, hardware, statistics, data, something not to listen to tonight but to talk about tomorrow.

Few albums ever so candidly caught so talented a performer in the act of sandbagging. N.C.

Recording of Special Merit

Carlos Santana/John McLaughlin: Love Devotion Surrender. Carlos Santana (guitar); John McLaughlin (piano, guitar); Larry Young (organ); percussion. A Love Supreme; Let Us Go into the House of the Lord; Naomi; and two others. Columbia KC 32034 $5.98, © OA 32034 $6.98, © CT 32034 $6.98.

Performance: Lasting

Recording: Excellent

Some time ago, Carlos Santana teamed up with drummer Buddy Miles for an interesting Columbia album, but that effort must now take a distant back seat to the fruits of Santana's collaboration with John McLaughlin, a guitarist who worked with (and influenced) Miles Davis before forming his own Mahavishnu Orchestra. This, to my mind, is the ultimate fusion of jazz and rock in their respective, current stages of development, a merger that produces a highly rhythmic, sophisticated music mirroring more the present than the past, a music that so takes on the character of its players that it becomes theirs alone.

McLaughlin and Santana are outstanding guitarists, and their work has never been heard to better advantage, from the delicate Spanish moods of Meditation and John Coltrane's Naaima to the electrifying, fierce beauty of Let Us Go into the House of the Lord and another Coltrane composition, A Love Supreme. Larry Young, who has been with McLaughlin for some time and now calls himself Khalid Yasin, exhibits subtleties few organists are capable of, and the percussion section includes such experts in the field as former George Shearing sideman Armando Peraza, former Miles Davis associate Don Alias, and McLaughlin regular Billy Cobham.

Let us hope that this album marks but the beginning of a collaboration from which great things can be expected.

C.A.


Performance: Fair

Recording: Good

With all the new talk of payola in the record business, this is an album I wouldn't have (Continued on page 94)
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NOVEMBER 1973
CIRCLE NO. 51 ON READER SERVICE CARD

93
minded taking a bribe for; that is, for not having to listen to it. The "star" is cozily positioned on the back, sitting in an alley, holding a pint bottle, and with an expression of disdain on his face. It sums up the album: one long snort of disgust at everything in general. Sky's philosophy is in The Big Disillusion groove and is childish far beyond patience. Child Molesting Blues is all that its title implies, and Vatican Casket is enough to make even an Episcopalian such as myself send a get-well card to St. Peter's. In the long range I have no idea what effect albums such as this make on the public. However, I do know that if they succeed with a large audience, then we as a country are in bad trouble.

There are many rewarding things about Steely Dan and this album: the arrangements are witty and tasteful, the performances are winning, and the songs are of high quality. And you get the sense that this group is going to get better as it goes along, that here is promise of something more to look forward to.

Whatever credit I have accumulated in heaven I would gladly use in behalf of Messrs. Walter Becker and Donald Fagen, the writers among the players who are responsible for a cultured pearl of a tune called Pearl of the Quarter, a song about a happily businesslike New Orleans Cajun lady and one of her overwhelmed clients, which is simply marvelous. It is the standout of an album that contains such achievements as Show Biz Kids, an evocation of the Los Angeles life-style, and King of the World, a study of a fellow who is the sole survivor of an atomic blast. Steely Dan's mixture of rock, jazz, and pop is potent and persuasive, and this is a really excellent album. Encore.

CAT STEVENS: Foreigner. Cat Stevens (vocals, piano, synthesizer, bass, organ, guitar, clarinet): Phil Upchurch (guitar); Jean Roussel (piano, bass); Bernard Purdie (drums); other musicians. Foreigner Suite: The Hunt; How Many Times; Later; 100 Years After (vocals and instrumentals). One of Stevens' best albums. Ten Years After: Recorded Live. Ten Years After (vocals and instrumentalists). One of These Days. You Give Me Loving; Hobbit; Help Me: Classical Thing; Extension on One Chord; Silly Thing; I'm Going Home; and six others. COLUMBIA CX 32288 two discs $9.98, © CAX 32288 $7.98, © CTX 32288 $7.98.

Performance: Mechanical Recording: Good

Alvin Lee is a very capable guitarist, he demonstrates it here on short pieces like Classical Thing and Seat Thing, both of which are less than a minute long. They simply prove how well he plays when he is away from what is expected of a rock group, especially in live performance. The band will never become known through expedient recordings like this. As I have said before, a live performance calls out all the puff and blow in a band. One of the reasons is that rock concert audiences do not come to be entertained and do not expect compressed and disciplined arrangements so many divergent elements. All of this promises some unexpected delights for those Stevens followers who can shake off old, comfortable understandings.

TEN YEARS AFTER: Recorded Live. Ten Years After (vocals and instrumentalists). One of These Days. You Give Me Loving; Hobbit; Help Me: Classical Thing; Extension on One Chord; Silly Thing; I'm Going Home; and six others. COLUMBIA CX 32288 two discs $9.98, © CAX 32288 $7.98, © CTX 32288 $7.98.

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TEN YEARS AFTER: Recorded Live. Ten Years After (vocals and instrumentalists). One of These Days. You Give Me Loving; Hobbit; Help Me: Classical Thing; Extension on One Chord; Silly Thing; I'm Going Home; and six others. COLUMBIA CX 32288 two discs $9.98, © CAX 32288 $7.98, © CTX 32288 $7.98.
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JAZZ

COLUMBIA KC 32143 $5.98. ® CA 32143 $6.98. © CT 32143 $6.98.

**Performance:** See above
**Recording:** Excellent

Few performers have been as prolific and consistently exploratory as Dave Brubeck. The darling of the Fifties college set is still going strong, playing music that does not actually differ greatly from what he played before, but that nevertheless has a fresh, undated sound. One might fault Brubeck for a certain heavy-handedness, but there is a distinct charm in the way he blends the sounds of conservatory and cathouse. Then, too, there is the rhythmic excitement he creates, the mountains of chords over which Paul Desmond soared for years.

Dexter Gordon is on the Columbia set, giving Mulligan more of an opportunity to stretch out, which he does beautifully. Particularly noteworthy is *The Sermon on the Mount*, which also happens to be from a longer Brubeck work. Mulligan preaches the sermon hauntingly, recalling some of the delicate sounds he nudged Chet Baker with in the days of his piano-less quartet.

In short: two good sets of dependable performances by veteran professionals. C.A.

Dexter Gordon (tenor saxophone): Thad Jones (trumpet, flugelhorn); Hank Jones (piano); Stan Clarke (bass); Louis Hayes (drums).

**Columbia:** *Ca' Purange*. Dexter Gordon (tenor saxophone). Dexter Gordon and His Orchestra. Kansas City Suite; Easin' It; Brotherly Love; Blues for Buddy O; Four; Five; Six; Misunderstood Blues; Manna Dev (Blues); It's 'bout That Time. ROULETTE RE 124 two discs $5.98.

**Performance:** Good Basie
**Recording:** Good

This set contains two albums put together in 1960 and 1962 from recordings previously released individually. It features arrangements by Benny Carter and Frank Foster, each taking up two sides. Carter’s contribution. *Kansas City Suite,* consists of ten short pieces that don’t seem to relate to each other musically. But this is not a put-down; each tune stands very nicely on its own. Carter, who for close to twenty years has been involved in scoring for Hollywood films and television, goes back as far as Basie in terms of years in the business. In the ten *Kansas City* pieces he has captured the flavor of Basie to the point of veiling his own characteristics. He is an outstanding performer on trumpet and alto saxophone, and I wish he had also participated in the playing here. But the Basic band of that period was not lacking in good soloists: Thad Jones gets in some fiery moments on the *Jackson County Jubilee* segment, trombonist Henry Coker sets a lyrical mood on the almost Ellingtonian *Sunset Glow.* Joe Newman generates excitement on *Blue Jive Five,* and so on.

Frank Foster, a regular member of the Basie band from 1953 to 1964, is as funky as Carter is melodic. Working from within the band, he had an advantage over Carter, and it shows in the way his arrangements complement the players. Almost everyone is featured on the seven Foster arrangements and every track is a joy to listen to. All that’s missing to complete the Basic sound of that period is Joe Williams, who bowed out at the time *Kansas City Suite* was recorded, and Irene Reid, who came in shortly thereafter.

The album is in Roulette’s “Echoes of an Era” series. And these are echoes that will reverberate for years to come. C.A.

**Dave Brubeck:** *Live at the Berlin Philharmonic*; *Count Basie: Kansas City Suite/Easin’ It*. Dave Brubeck (piano); Gerry Mulligan (baritone saxophone); Paul Desmond (alto saxophone); Jack Six (bass); Alan Dawson (drums); Joe Newman (trumpet, flugelhorn); Hank Jones (piano); Stan Clarke (bass); Louis Hayes (drums). Truth; Koto Song; Glow; Joe Newman generates excitement on *Blue Jive Five,* and so on.

**Performance:** See above
**Recording:** Excellent

Dave Brubeck (piano); Gerry Mulligan (baritone saxophone); Jack Six (bass); Alan Dawson (drums); Thad Jones (trumpet, flugelhorn); Hank Jones (piano); Stan Clarke (bass); Louis Hayes (drums). Truth; Koto Song; Glow; Joe Newman generates excitement on *Blue Jive Five,* and so on.

**Performance:** High-caliber
**Recording:** Excellent

**Dexter Gordon:** *Ca' Purange*, *The Sermon on the Mount*, *Live at the Berlin Philharmonic*.
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STEREO REVIEW

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AUDIO

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STEREO & HI-FI TIMES

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which features the leader at his most virile; but I have always liked Dexter Gordon best when he oozed lyrical sentimentality, as on Ewan MacColl's Grammy-winning hit The First Time Ever I Saw Your Face. Oh! Karen O, a lengthy blues in two tempos, rounds out the album nicely with an alternately gutsy and gentle Dexter.

If you are going to add to your Dexter Gordon collection, I recommend this album; if you are starting one, look instead for "Our Man in Paris," on Blue Note, recorded with Bud Powell and Kenny Clarke in 1963. It is still the finest Gordon recording of the past decade.

C.A.

COLEMAN HAWKINS: The High and Mighty Hawk. Coleman Hawkins (tenor saxophone); Buck Clayton (trumpet); Hank Jones (piano); Ray Brown (bass); Mickey Sheen (drums). Bird of Prey Blues; My One and Only Love; Vignette; Ooh-Wee, Miss G.P.; You've Changed; Get Set. MASTER JAZZ RECORDINGS MJR 8115 $5.98.

Performance: Unpretentious
Recording: Good

Recorded in February, 1958, as part of London Records' Felsted series, this album captures Coleman Hawkins at a busy time of his life. It was the second of five albums he was to make that year as a leader, and he had made five the year before—ten albums in two years is way above normal output for any artist, but Hawkins never sounded complacent.

Buck Clayton, who was one of Count Basie's greatest assets between 1936 and 1943, seems less at home with Hawkins than he does on his many recordings with tenorman Buddy Tate, but the result is nevertheless pleasing. My favorite track is Bird of Prey Blues, on which Hawkins really stretches out: You've Changed gives us Hawkins the rhapsodic balladeer, but—at least on my copy—the beauty is marred by extraneous noises that probably are due to a flaw in the metal master.

As on all the Felsted recordings I have heard so far, the stereo is two—rather than three—dimensional, but that is a minor fault. The music is there, sometimes tough, sometimes tender, but always unpretentious. This is not the greatest Coleman Hawkins session, not even of that year, but—except for his last TV show, when he had become but a shell of his old self—Hawkins always had something interesting to say, and he said it better than most.

C.A.

WOODY HERMAN: The Raven Speaks. Woody Herman (clarinet, alto and soprano saxophones); orchestra. Fat Mama; Watermelon Man; Summer of '42; and five others. FANTASY 9416 $4.98.

Performance: Lacks the thunder of old
Recording: Very good

Almost thirty years ago, after a few years of leading a less distinguished "band that plays the blues," Woody Herman, armed with such arrangers as Neal Hefti and Ralph Burns, set the dusk of the Swing Era ablaze with his thundering herds of toppinotch sidemen. They left in their wake a series of Columbia recordings that will not soon be forgotten. Since then there have been several Woody Herman bands, but past musical accomplishments and glories were never recaptured by the now sixty-year-old leader. It is, however, to Her-

(Continued on page 100)

CIRCLE NO. 37 ON READER SERVICE CARD
The exasperating truth about cassette decks.

A lot of the money you shell out for a cassette deck is supposed to buy you a superb cassette recorder. Certainly most manufacturers try to give that impression. They sport big VU meters, slider-type pots and other professional recording-console accoutrements.

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CIRCLE NO. 58 ON READER SERVICE CARD

STEREO REVIEW
If it doesn’t say Hitachi on the receiver, it won’t say three years on the warranty.

The last thing you look at in a stereo receiver should be one of the first.

If you’re like most people, you never glance at your receiver’s warranty until you get the set home.

Which could be unfortunate, since a major repair could be a major expense. (Funny how people always ask about price, but not about repairs.)

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Not shown is the lower-priced Hitachi SR-3200, identical in every way to the SR-5200 except it gives you one tuning meter and 13 watts of power per channel—so the sound won’t overwhelm you in a small room.

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Quality always comes first at HITACHI
parate sets of recordings that are a must for all jazz piano scholars and should not escape the ears of anyone interested in American music and what shaped it.

The fourteen Folkways selections—two of which appear in two takes—were recorded by Moses Asch between 1943 and 1945 and are now being released for the first time. The first side is devoted entirely to Johnson's own compositions, but, as the other side illustrates, Johnson was always composing: whether it's Gertrude's Liza or W.C. Handy's Memphis Blues, the result bears the imaginative Johnson stamp. The sound is good, although the slight surface noise that occurs here and there could have been cleaned up a bit more.

Some of Johnson's own sources—his roots in ragtime—are reflected in the Biograph set. A worthy companion to the label's previous Johnson collection (Vol. I), it's made up of fifteen piano-roll selections—three of which are duets—made in 1917 and one Columbia recording made in 1939. Again, there are alternate versions demonstrating Johnson's inventiveness, and there is a wealth of original material from the great pianist's prolific pen.

The piano rolls, of course, have the inevitable mechanical touch—a notable lack of dynamics—but, thanks to the expert involvement of Michael Montgomery, who pumped the piano and from whose vast collection the rolls came, the tempos are true (unlike the old Riverside piano-roll records, which usually were reproduced at an all too hectic tempo).

These are two vital releases of very special merit.

CHARLES MINGUS: Charles Mingus and Friends in Concert. Charles Mingus (bass); Gerry Mulligan (baritone saxophone); Gene Ammons (tenor saxophone). Lee Konitz and Charles McPherson (alto saxophones); James Moody (flute); Randy Weston (piano); other musicians. Jump Monk; Us Is Two; Oof-Ya-Koo; Mingus Blues; and six others. COLUMBIA KG 31614 two discs $6.98, © GA 31614 $7.98.

Performance: Impressive, star-studded Recording: Very good

The Mingus concert took place February 4, 1972. I don't know if it made money, but it was a rousing artistic success that has resulted in a fantastic album.

Since I don't have the space for a three-page review, it seems hopeless to attempt even to list the highlights of Mingus' return to the concert stage after ten years; the concert itself was one of the highlights of the year. I would, however, be remiss if I didn't note the extraordinary talent of trumpeter Jon Faddis. Substituting for Roy Eldridge can be a scary proposition for even the most seasoned veterans, but Faddis or Gold Fradis did just that on Little Royal Suite, an extended work composed in honor of Eldridge for the occasion. I would still like to hear Roy (who was ill that evening) play it, but Fradis put on a performance that will be hard for anyone to follow.

Comedian Bill Cosby served as master of ceremonies. Perhaps he added something to the proceedings at the concert, but here he is a bothersome fly hovering over a table of delicacies. The delicacies in this case just happen to be too good to worry about a fly, so I urge you to savor this feast.

C.A.

RECORDING OF SPECIAL MERIT

CARMEN McRAE: I Want You. Carmen McRae (vocals); instrumental accompaniment, Peter Matz and Don Schesky arr. and cond. The Night Has a Thousand Eyes; Too Good; Don't Ever Leave Me; Sweet Georgia Brown; And I Love Him; and five others.

Mainstream 387 $5.98, © M 8387 $6.98, © M 5387 $6.98.

Performance: A musical caress

Recording: Excellent

Carmen McRae, an eye in the hurricane of this storm-swept world, continues to turn every number she sings into a lament, but listening to her, even when her spring has turned to winter as in Winter in May, is for me an enjoyable and reassuring experience. This little girl with the voice that heals will come out of all this one hundred per cent, don't you worry. Despise her, reject her, leave her, let her love in vain, haunt her with the shadow of your smile, turn her dreams to tin—my money is still on Carmen. In her world it may always be lonely and late at night, but that sweet, rich, honest, middle-register voice is balm for all my woes, soothing as a lover's gentle hand on a troubled brow. Oh, Carmen, don't ever leave me!

C.A.
Henry Lewis knows how to listen.

Henry Lewis is a superb conductor. The Washington Post calls him the most gifted American of his generation. When he isn’t conducting his New Jersey Symphony Orchestra, he’s often listening to it. Frequently he brings home a rehearsal tape to listen to on his Pioneer SE-505 stereo headset in the privacy of his living room. Because of the peace and quiet of his home, he can analyze the performance of individual instruments to achieve the interpretation he’s looking for.

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(PIONEER) when you want something better
rather than entertain us from his living room grand piano, the veteran composer treats us to recordings from his historic past. These performances by Blake and his lyricist partner Noble Sissle date from 1920 to 1927. They are not directly of jazz interest, but they form a vital part of any collection of Afro-American music, documenting as they do some of the enormous but largely overlooked contributions of black people to the American musical theater.

Side one consists of material from Sissle and Blake’s celebrated *Shuffle Along*, one of the most significant shows in Broadway history. The songs and music will startle no one today, but on May 23, 1921, when the show opened at the 63rd Street Theatre, critics and theatergoers saw a show such as the Great White Way had never seen before, music with syncopation that was alien to the musical theater of the day, costumes and dancing that dazzled the eye. The lyrics are humorous, naïve, and even a bit racist, but it is all so delightfully dated that no one can take offense: a piece of Americana to be listened to in correct perspective and with the same reverence granted Lindberg's "Spirit of St. Louis" or Emil Berliner's flat disc.

Side two features the Sissle and Blake team performing various popular tunes of the day in the style of the day. Only one, *Down Hearted Blues*, seems to have survived, but who can say the Johnny Mann Singers won't pick up on *I've Got the Red White and Blues*? C.A.

**COLLECTIONS**

**RECORDING OF SPECIAL MERIT**

**MASTER JAZZ PIANO, VOLUME THREE.**

Teddy Wilson, Earl Hines, Gloria Hearn, Sonny White, Keith Dunham (piano). One O’Clock Jump: Blue Fox; Carolina Shout; Memories of You; Satin Doll; and five others. MASTER JAZZ RECORDINGS MJR 8117 $5.98 (available from Master Jazz Recordings, Inc., Box 579, Lenox Hill Sta., New York, N.Y. 10021).

Performance: From memorable to good
Recording: Very good

Continuing their generally excellent releases of quality jazz, Master Jazz Recordings has come up with yet another volume of piano performances, and Volume Three is worthy of any collection.

Here are five pianists, each playing two selections recorded between 1969 and 1972. This set contains the best Teddy Wilson solos I have heard in recent years (*One O’Clock Jump* and *Satin Doll*); Blue Fox, an atypical slow blues by Earl Hines, who also dazzles with his version of *Blue Skies*; rare solo performances (*I Got Rhythm* and *Memories of You*) by former Billie Holiday accompanist Sonny White. That’s the cream off the top of this offering, but the rest, two solos by Keith Dunham—a protégé of stride pianist Cliff Jackson—and two by a relatively modern newcomer, Gloria Hearn, also make for pleasant if less memorable listening.

One only wonders why these recordings were issued in anthology form. I would have preferred a complete Wilson album, a complete Hines album, etc., but I suppose Miss Hearn and Mr. Dunham would have found a very limited audience if things had been so arranged.

(Continued on page 106)
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Performances: Newman fine, Gerhardt better
Recordings: Angel good, RCA spectacular

For years Alfred Newman was the in-house composer at 20th-Century Fox. While he... (Continued on page 110)
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PEOPLE PAST AND PRESENT

Argo's recorded "portraits in sound," though "official," are lively, diverting, and instructive

Reviewed by Paul Kresh

The portrait of Samuel Pepys (1633-1703) relies rightly on passages from the diary of that chronicler of the English Restoration in the days of Dryden and Congreve. Mr. Hobbs again orates rather than narrates, but the material assembled by John Carroll is too fascinating for even that drawback to matter. The portrait of the tailor's son who rose to be one of London's most distinguished civil servants and men-about-town is rounded out with revealing excerpts from letters of the period and climaxed by pages from the Diaries describing the Great Fire which ravaged London and of which Pepys was the most observant of eye-witnesses. Since the diarist loved music, songs and lute pieces of the period by Martin Parker and Jeremy Savile, along with a rather touching song called Beauty Retire by Mr. Pepys himself, punctuate spoken portions of the script, again offered by Robert Spencer. There have been other attempts to put Pepys on record, notably Spoken Arts' outstanding "Excerpts from the Diaries of Samuel Pepys" read by John Franklyn, but here we have that life painted in perspective—although it must be said that the lighting has been arranged more to flatter than to penetrate the personality of a man who certainly was no saint.

These are very respectable portraits, then, though slightly stodgy, as this kind of portrait is apt to be. But they are instructive, and they are well worth hearing.


PEOPLE PAST AND PRESENT: Samuel Pepys. John Carroll (editor); Carleton Hobbs (reader); Robert Spencer (baritone and lutanist). ARGO ZPL 1165 $5.95.

PEOPLE PAST AND PRESENT: John Donne. Douglas Cleverdon (editor); Carleton Hobbs and William Squire (readers); Robert Spencer (baritone and lutanist). ARGO SPL 1167 $5.95.

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THE SIMELS REPORT:

* Led Zeppelin
* Z.Z. Top
* Iggy and the Stooges

By Steve Simels

You might say that rock-and-roll, has, thank God, occupied most of my time of late—that is, if your definition of rock-and-roll is as broad as mine is, broad enough to encompass a five-week saloon engagement as a member of northern New Jersey's only glitter-polka band. At any rate, it has been, undeniably, a slow summer for the Big Beat, which may or may not be attributable to the lack of a new Stones single (Angie snuck in at the tail end of the season as a sort of back-to-school act), but still there were at least a few significant happenings. Richard Robinson announced (in Rock Scene) that the Sixties were at last coming to an end as a sort of back-to-school act), but still there were at least a few significant happenings. Richard Robinson announced (in Rock Scene) that the Sixties were at last truly dead, and a week later six hundred thousand kids trekked out and up to Watkins Glen to hear (?) the Grateful Dead and other vague dots on the horizon providing Tribal Muzak: the New York Dolls came up with an album that has, thank God, occupied most of the season, though I know better than to try to assign any higher meanings to what followed, not by any particular qualities of originality, but by the sincerity and unpretentiousness of what they did. They relied on the books on the basis of nothing more than a spiritless run-through of the most hackneyed cliches. A few weeks later, however, my faith in rock was in some small ways restored. London Records kindly flew me and some other writers to Houston, where hometown favorites Z.Z. Top (a local phenomenon on the verge of becoming a national one) were performing after a protracted absence. To be honest, I hadn't expected much. But Z.Z., a prototypical power trio who are in some ways a Southern version of Grand Funk, won me over, not by any particular qualities of originality, but by the sincerity and unpretentiousness of what they did. They relied perhaps too heavily on overly familiar boogie mannerisms, but they could play the blues when they had a mind to, and Billy Gibbons (who is a marvelous showman as well as a blistering guitarist) seemed like a natural for stardom.

But it wasn't until my return to New York that I really became convinced that rock was alive and well, and it took Iggy and the Stooges to do it. I wouldn't have thought it possible. Their first album is so determinedly mediocre that I've been using it as a comedy record for years (it contains, for example, a ten-minute quasi-Indo-fusion number you can pick the needle up, redeposit it at any given point, and not notice the difference), and their second effort, "Fun House," was merely bad, although it too had the courage of its inanity. My only other contact with the band prior to their recent "Raw Power" was the brief appearance they made on a televised rock festival from Cleveland (!) where the Ig didn't do much beyond staring at the audience and shrieking occasionally, finishing, I thought, a poor second to announcer Jack Bishop.

But at Max's Kansas City, where I came face to face with them at last, they were simply beyond belief. The band, fronted by James Williamson, played with an almost savage intensity and drive (making the studio versions from "Raw Power" sound cut and dried, if you can believe it), while Iggy roamed the tiny stage and prowled the audience in a display of madness that may well have been feigned but was nonetheless totally convincing. The combination of the searing music (really, no one has ever done anything like it since the Kinks went pastoral and the Yardbirds broke up) and Iggy's dementia added up to one of the most total assaults I've ever experienced, and perhaps the most powerful rock theater piece since the great days of the Who. Of course it will never work on the mass level. In a small club like Max's, where you're forced to confront the band directly, it's gangbusters, but in a large hall I think the effect would be lost. Still, it's nice to know that they're around to keep us honest.

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(Leaflet of texts)

Deutsche Grammophon Records. Music Cassettes and 8-Track Stereo Cartridges are distributed in the USA by Polydor Incorporated; in Canada by Polydor Ltd.
Both performances are admirable. Maureen Lehane excels in the Bach cantata: in the Telemann work Elly Ameling and Barry McDaniel deliver their beautiful arias affectingly, with noble restraint and laudable (if not wholly successful) attempts at coping with Baroque ornamentations. The recorded sound is warm and clear, but there are minor surface imperfections on the Telemann side of my review copy.

BACH, J.S.: Cantata No. 106, Gottes Zeit ist die allerbeste Zeit (Actus Tragicus). TELE-MANN: Trauerkantate, Du aber Daniel gehe hin. Elly Ameling (soprano, in Telemann); Maureen Lehane (contralto, in Bach); Kurt Equiluz (tenor, in Bach); Barry McDaniel (baritone); Aachen Dom Choir; Members of the Collegium Aureum, Rudolf Pohl cond. BASF 21441 $5.98.

Performances: Very good
Recordings: Very good

Both of these funeral cantatas are concerned with the concept of death as viewed by the Old and the New Testaments, reconciling the tragedy of dying with visions of the blissful afterlife. Both are serene, soothing works engaging very small orchestral elements: two recorders, oboe, violin, two violas da gamba, and continuo. The musical construction, however, follows different patterns in the two cantatas. Bach’s No. 106 is an early work (1707) in which the solo voices (contralto, tenor, and bass) sing brief arioso passages at times contrapuntally entwined. The Telemann Trauerkantate, dating from the 1720’s, unfolds in a pattern of two sets of recitatives and arias for the soprano and bass soloists, with opening and closing choruses. Both performances are admirable. Maureen Lehane excels in the Bach cantata: in the Telemann work Elly Ameling and Barry McDaniel deliver their beautiful arias affectingly.

EXPLANATION OF SYMBOLS:
R = reel-to-reel stereo tape
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The first listing is the one reviewed; other formats, if available, follow it.

PAUL KRESH  ERIC SALZMAN

--

RECORDINGS OF SPECIAL MERIT


Performances: Very good
Recordings: Excellent

The so-called French Suites are actually more French stylistically than either of Bach’s other sets of keyboard suites, the English Suites and the Partitas. They are a fascinating mixture of movements of differing national styles, primarily French and Italian, but, unlike the other keyboard suites, they do not begin with any introductory movement such as a prelude. Using a 1754 two-manual instrument by the Parisian builder Henry Hemsch, French harpsichordist Huguette Dreyfus performs these works, plus the early, programmatic Capriccio as filler, with commendable technical assurance (not always so easy on a historical instrument) and a good understanding of style. Perhaps these are not the most imaginative interpretations, but Mme. Dreyfus does add a few additional ornaments to the repeats on occasion, and she presents the music with a fine understanding of its underlying dance-tempo character. The sprightliness of the faster movements is particularly effective, though I felt those movements of slower or more moderate tempo, such as the allemandes, were a bit stiff and lacking in gracefulness. Nevertheless, on the whole these are very satisfactory renditions and they have been faithfully recorded. The instrument itself, apart from a lack of singing quality in the treble and a slightly too bright four-foot stops, sounds very good; the individual eight-foot stops are especially attractive in the bass. Those looking for an integral set of the French Suites will find this new recording superior to the other available harpsichord versions listed in the catalog. (My own favorite is the clavicord version so sensitive-ly played, but regrettably without repeats. by Thurston Dart, L’Oiseau-Lyre 60039.) I.K.

RECORDINGS OF SPECIAL MERIT


Performances: Both excellent
Recordings: Archive very good, Philips excellent

J.S. Bach’s trio sonatas, with their three independent parts (two keyboards plus pedals), are, of course, a test for any organist, and in terms of technical dexterity young Daniel Chorzempa acquits himself with flying colors. It is not so much that he adopts rapid tempos: his slow movements, in fact, are rather legato.

(Continued on page 116)
JOHANN SEBASTIAN BACH did not turn to the writing of thematic variations very often, but among his few sets in this challenging form is to be found some of the most profound musical thinking of the eighteenth century. There are apparently only two sets of variations which the composer intended specifically for the harpsichord (other keyboard works are mostly chorale variations for organ), and both of them—the "Goldberg" and the Italian Variations—have just been recorded by Igor Kipnis in a superb two-disc album for Angel.

The early Variations of 1709 are explicitly in emulation of the style of the Italian fiddle virtuosos, and they are brilliant exemplars of the traditional manner. But the "Goldberg" Variations are something else again. They were written in 1742 for Johann Gottlieb Goldberg, a young virtuoso in the employ of one Count Hermann Karl von Keyserling. Poor Bach. Contrary to the popular notion of the situation, he seems to have hated his miserable church job in Leipzig, and was therefore constantly searching for the kind of princely patronage he had enjoyed earlier at Cöthen. When an occasional outside commission came his way, he seems to have extended himself to an extraordinary degree, as if to demonstrate every possible facet of his remarkable skills in each work, and thereby his eminent employability as well. The incredibly rich "Goldbergs" are an excellent example of this: they contain perhaps two or three Suites' worth of dances, fantasies, and arioso, a series of brilliant keyboard toccatas, a run of canons at every possible interval from the unison to the ninth, as well as an ingenious quodlibet ("what you please") incorporating a couple of popular tunes of the day—all this arranged in a great, symmetrical arch rounded off with a repeat of the original theme.

Since he was forced to work so often with provincial—and largely inadequate—musicians, Bach tended to write out his music in considerable ornamental detail—unlike most Baroque composers, who were perfectly content (many of them could afford to be) to leave such details of "interpretation" to the performers. Since Igor Kipnis is one of the apostles of the revival of Baroque performance practice, the question naturally arises as to how he will treat a work as highly elaborated as the "Goldberg" Variations. What a surprise to discover immediately, with the playing of the famous aria that is the subject of the Variations, that his first stroke is not ornamentation, but de-ornamentation of the theme! Assuming that the written-out version of the score already is the ornamented form, he has deduced the "original" tune (it may or may not be by Bach himself) beneath! The more familiar ornamented version is then reserved for the repeats. This genial and ingenious idea has the delight of surprise—and is totally convincing in the playing as well.

But this is only the beginning. Some of the knottiest problems in the interpretation of Baroque ornamental notation involve those little notes that can be read either as passing notes (in which case they are to be played before the beat) or as appoggiaturas (in which case they undoubtedly belong on the beat). Kipnis neatly resolves this dilemma by giving us both, playing them one way first, the other way the next time through. Let me add quickly that none of this seems at all arbitrary, arrogant, or willful. Bach's highly elaborated notation is taken to be not a monument chiseled in stone for all time, but a text to be used as the basis for a living, breathing re-creation. Often enough not a great deal to leave—a deft, quick filling-in of a leap, an elegant or witty little punctuation at the top of a line, a gentle, graceful rhythmic bend, a quick twist of the wrist, or even a thoughtful pause. Add to that the skillful changes in registration, which repeatedly (!) catch the music in revealing new lights, and you have performances that are filled not only with musical wit and scholarly wisdom, but a pervading sense of rightness and naturalness as well.

The successful projection of this far from simple music rests, for Kipnis, on a sound philosophical basis, for he is the conscious master of a very special art: putting down on vinyl fixed, unchangeable performances of musical works very much intended for live performance. He rightly conceives of the recording medium as a thing in itself, a unique form of musical expression of an essentially intimate nature—hence its great success, when properly handled, with salon and chamber music. Appropriately here, the harpsichord sound is fresh, close, not overblown—but still full of presence. The performances, too, evince a finely judged sense of appropriate scale without ever losing sight of the importance of that delicate balance between documentation (completeness, clarity, and accuracy) on the one hand and expression (the singing line, the telling ornament, the perfect phrase, plus wit, rhythm, vigor, and even reflection) on the other. All this is admirably achieved in this eighty-three-minute performance.

Curiously enough, most of the outstanding earlier recordings of the "Goldbergs" have been by pianists. But this is eminently harpsichord music, and among the available harpsichord versions the Kipnis performance is pre-eminent.

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The recording leaves little doubt that his is one of the most remarkable talents to be heard today. If there is any fault to be found at all, it is in the matter of the slow movements and in some of the higher-pitched stops do tend toward a slight flutter.

Helmut Walcha, who at the age of sixty-six has just retired as a recitalist, first recorded the trio sonatas in the early days of the long-playing disc. For me, at least, that performance remains a paragon, although, of course, it has long been out of print. The new version of the trio sonatas formed a part of Walcha’s second recording of the virtually complete organ works of Bach and can be found in the first volume of the anthology issued in eight discs as Archive 2722002. The recording at hand, made in 1969 on the fine Silbermann tracker organ at the Church of St. Pierre-le-Jeune, contains only four of the trio sonatas. A 1936 recording of the other two will be reissued on Archive 2533140, electronically enhanced for stereo, as a companion disc; it will also contain the Canzona and Allegro (both from the eight-disc anthology) plus an organ performance of the four duets, the latter not having appeared in any form in this country before now. If you’re still with me, you’ll see that this means the Archive set, which spreads the trio sonatas over three sides, will contain more music for the money than the Philips set. What, though, of the performance? Walcha is not quite as agile as he was in his very first recording, but he has regained some of the strength and confidence he displayed in the fast movements, however, Walcha’s recording falls down. Chorzempa’s instrument is marvelously forward: Walcha’s is further back in ambiance, with less solidity of the bass line and the clarity of his playing is really noteworthy.

Chorzempa’s display of the bass line and the clarity of his playing is really noteworthy. One of the most startling scores of recent years is this “symphonic tragedy” or “tragicomedy” by the forty-year-old Spanish composer Leonardo Balada. It was first presented as a kind of opera-oratorio in Carnegie Hall, New York, in 1970 and later twice performed in Madrid, where it caused such a commotion that it was called “the work of a genius.” The audience who were shocked by the frank language of the text—that the first performance there had to be halted until the dissenters were removed. Later Balada reduced the work to a forty-minute suite for soloists, chorus, and orchestra, and that is the form in which it is heard on this sensational recording in the Louisville series.

Balada, born in Barcelona but a product of the Juilliard School and a student of Copland and Persichetti, attracted attention while still in his thirties for his Guernica and his opera Maria Sabina. The composer today lives in Pittsburgh, where he teaches music at Carnegie-Mellon University. Yet his work remains utterly Iberian in character, and Maria Sabina is based on a libretto by Camilo José Cela, a Spanish poet, novelist, and playwright.

The “tragifonia” unfolds the story of a witch in Oaxaca who has indulged in the cult of the hallucinatory mushroom and is being tried by his townsmen. The work opens in an eerie, tense atmosphere: the composer intersperses avant-garde devices—tone clusters contrasted with unisons and triads, aleatory fragments—with an impressionistic musical palette that recalls the best of Falla and Granados. Above all, Granados might be said to have inspired the Balada, who smokes aromatic herbs in a pipe made of veterinarian from a blood-draimed martyr.

After each new outburst by the witch, the chorus, as Robert McManus points out in his absorbing program notes, “whispers, shouts, wails or produces other sorts of effects which set the listener’s spine tingling and rivet his attention to the work in progress until the inevitable denouement of death, when the sounds of fireworks, the wails of children, and the approach of an ominous storm bring the piece to a hair-raising climax.” As it happens, there is a real Maria Sabina living in the village of Huaullia in the Province of Oaxaca, who has been the subject of anthropological studies and magazine articles, including one in the late Life. She is still around, and shortly after her impersonator was hanged in Carnegie Hall, she told interviewers with some puzzlement that she had heard there was an opera about her being given in New York. Since then, she has had several affairs with a wealthy neighbor and her home has been burned down three times, but she is still pursuing her career as a witch and is said to be responsible for the death of a number of hippies who ingested too many sacred mushrooms at her urging.

...
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Those who found Boulez's view of the Fantastique dulish will find that here recompense here. These are vibrant, full-blooded readings; the Benvenuto Cellini overture is especially welcome after the rather bland account in Colin Davis's otherwise attractive Philips set of the complete opera. The collection also constitutes one of the most brilliant exhibitions of virtuosity by the New Philharmonic in some time, though the sonic frame seems a little lacking in bass. All that keeps this hugely enjoyable disc from the "Special Merit" category is the competition—which in the case of these well-loved showpieces is formidable indeed.

The entr'acte from Récréation et Bénédict amounts to an utterly negligible minute and a half (why, by the way, has Columbia stopped printing timings on its jackets?), in place of which this rather short side might have been filled out with, say, Les Francs Juges, which Boulez would probably carry off superbly. As it happens, there is an RCA disc (LSC 2438) on which Charles Munch and the Boston Symphony can be heard in the same program, but with the entr'acte replaced by the overture Le Caractère. Enjoyable as the Boulez collection is, the Munch is preferable. Since neither Munch nor Boulez included the vocal parts in the Royal Hunt and Storm, as Beecham did in his "Lollipops" collection on Angel $3.50, it might be further noted that there is, at half the RCA or Columbia price, a London disc (STS 15031) on which Jean Martinon and the Paris Conservatoire Orchestra offer almost the same program as Munch's, but substitute the Rubaczy March for the Troyens excerpt. R.F. BOULEZ: Le Marteau sans Maitre. Yvonne Minton (mezzo-soprano). Ensemble Musique Vivante, Pierre Boulez cond. Livre pour Cordes. Strings of the New Philharmonic Orchestra, Pierre Boulez cond. COLUMBIA M 32160 $5.98. Performance: Brilliant. Recording: Excellent.

Pierre Boulez's own earlier recording of Le Marteau sans Maitre, now on Turnabout TV-34081, still sounds so fresh that hearing it through against the new Columbia only led me to question whether it is necessary, or even desirable, to spend more than $2.98 for a "definitive" account of the work. Perhaps it is only habit (I cannot think it would be sentiment), as I have lived with the older version first on Harmonia Mundi and now on Turnabout—for eight or nine years—but it strikes me as having more of a feeling of spontaneity than the new version, which gives the impression of having simply been learned well and executed brilliantly by those involved.

I hesitate to make too much of this, particularly since two of the six instrumentalists in the Columbia recording (violinist Serge Collot and guitarist Anton Stengl) also took part in the earlier one; but repeated hearings only deepen the impression. One factor in this is that Yvonne Minton's glorious voice is given much too much prominence in the new version, and her feeling for the text seems less convincing than Jeanne Deroubaix's on Turnabout. Similarly, while Michel Debost plays very well indeed on Columbia, the incomparable Severino Gazzelloni, on Turnabout, goes farther, not only in terms of sheer virtuosity, but in establishing the eerie mood of the piece. Obviously Boulez has not lost interest in his already classic work, and Columbia has given him a transparent recording, but the presentation here leans toward voluptuous display, in contradistinction to the viscerally communicative experience on the Turnabout disc—whose sound quality is still competitive, if somewhat drier. As for the Livre pour Cordes—actually two very brief pieces, more or less à la Webern, which fill out side two—this is superbly wrought stuff, and superbly played by the New Philharmonic's strings, but hardly substantial enough, I would think, to justify the doubled expenditure for the less compelling version of Le Marteau. The annotation, incidentally, advises that the string pieces constitute "an exhaustive reconstruction" of part of a work for string quartet which "Boulez no longer acknowledges." Evidently, however, he does allow the original to be performed and recorded, for parts of the Livre pour Quatuor, including these same movements, were recorded by the Parrenin Quartet for Erato fairly recently and released in this country by the Musical Heritage Society (MHS 1228). R.F.

Even if you already have the Böhm reading of the complete Wozzeck, this disc is a must because of the lovely Seven Early Songs. D.H.


With about a dozen current recordings of Brahms' D Minor Concerto and twice as many of the B-flat, all but one or two of them (Continued on page 120)
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performed by certified Olympians, it would be preposterous to designate any single version of either as "the best." Each approach has its own validity, and I suspect that listeners respond with a greater degree of subjectivity to these gigantic works than to any other concertos in the general repertoire. My own preference among recordings of the B-flat has for some years been the one Emil Gilels made with Fritz Reiner and the Chicago Symphony (now on RCA Victor/ROLICS 1026, a genuine bargain), which to me represents a virtually ideal balance of the lyric, heroic, intimate, and dramatic elements of the work. Gilels has never acquired the sort of mystique that his compatriot Sviatoslav Richter has, and his performances are seldom of the "white heat" sort; what excitement there is (and there is considerable) in his music-making stems from a logical "grand view" rather than from impetuosity. This, it seems to me, is just the sort of approach such large-proportioned works require. There is also, for all their vast dimensions, a good deal of chamber music in these concertos, and Gilels' recent recording of the G Minor Piano Quartet reminded me of both his status as a chamber music player and his particular insights into Brahms.

Without in any way diminishing my admiration for what such musicians as Serkin, Horowitz, Rubinstein, Arrau, Ashkenazy, Richter, Backhaus, Watts, Reiner, Toscanini, Szell, and Schuricht have given us in their various recordings of these concertos, this new set by Gilels and Jochum asserts itself—more firmly with repeated hearings—as desert-island Brahms. The predominant characteristic is an expansive serenity, but there is no shortage of drama, tension, or sheer vigor where appropriate. Tempos are broad (almost daringly so in the gorgeous slow movement of the B-flat); but the heady temptation to overplay the "epic" qualities of the concertos is happily disregarded. There is, in fact, a tendency toward understatement that makes the grandeur of the first movements unusually convincing, and throughout both long sequences there is, instead of a momentary blaze here and there, a steady glow, a radiant spontaneity that relieves the listener of any awareness of "interpretation."

Had Gilels and Jochum ever met, let alone performed together, before they made these recordings? I tend to doubt it, and yet the integration of elements in these two performances is so thorough as to suggest a mutualty forged through decades of joint endeavor. I cannot recall so strong an impression in this respect from any concerto recordings I have heard before (or concert performances, either). The sonic focus, like the performances themselves, is about as close to perfection as anyone has yet come in concerto recordings.

R.F.


Performance: Somewhat small-scale
Recording: Good

Some months ago I lavished high praise on the Sibelius-Tchaikovsky concerto recording that features Kyung-Wha Chung with the London Symphony Orchestra under André Previn's baton. The combination of unerring intonation, rhythmically vital phrasing, and sparkling agility, not to mention Previn's outstanding collaboration, made for an altogether outstanding disc. But the essentially aristocratic style of Miss Chung is less well cast for Bruch; everything here is all very lovely, but also a bit too careful—in the finale of the Concerto especially. The uninhibited yet controlled approach of Menuhin in the First Concerto or of Heifetz or Campoli in the Fantasia is far more satisfying. Rudolf Kempe's accompaniments are excellent, as is the recorded sound. D.H.

RECORDING OF SPECIAL MERIT

COUPERIN: Pièces de Clavecin. Prélude No. 3 from L'Art de Toucher le Clavecin. Ordre Nr. 7: La Ménétou; Les Petits Ages; La Basque; Les Amusements. Prélude No. 5 from L'Art de Toucher le Clavecin. Ordre Nr. 5: Allemande, La Logivière, Courante I, II; Sarabande, La Dangereuse; Gigue; La Flore; Les Agréments. Gustav Leonhardt (harpsichord). BASF KHB 20348 $5.98.

Performance: Exemplary
Recording: Very good

Gustav Leonhardt displays his customary mastery, stylistic and technical, in this selection of François Couperin's harpsichord pieces. Specifically, he has chosen an almost complete Ordre, No. 7 from the composer's second book of Pièces de Clavecin (omitting only La Chace), plus about half of the Fifth Suite from Couperin's first book of Ordres; in
each case, following the composer's suggestion, he plays one of the brief preludes from Couperin's didactic Art de Touche; le Clavecin as a preface to the pieces that follow. Regarding the performances, I think it will suffice to say that it would be difficult to find more idiomatically played Couperin anywhere. Leonhardt does not attempt to dazzle (it is not that kind of music) but concentrates instead on refinement and subtlety. The harpsichord he plays here is his own often recorded Skowroneck, built in 1962 and designed after a mid-eighteenth-century Flemish Duiciken. Although the recording level is too high for normal playback (stiff volume reduction is mandatory), at reasonable volume the instrument sounds superb in its clarity and firm bass.

BASF should try to improve its jacket presentation: in addition to neglecting to mention that the suites are not the complete ones (No. 5 alone would take up two sides), the trilingual program annotations make no attempt to identify or explain the various character pieces (such as Les Petits Ages), and the English translation is very undiomatic. I.K.


Performance: Awkward
Recording: Dry

John Field's piano sonatas, although not exactly remarkable—they are mostly in the manner of his teacher Clementi, with an occasional excursion into an Irish or Scottish vein—are certainly real novelties with charm. However, their revival is not going to be made imminent by these (to be as polite about it as possible) awkward performances and recordings. The liner notes don't even correspond to the order of the pieces on the disc. E.S.


Performance: Norse music, Berlin style
Recording: Excellent

Just what we all wanted—another set of Peer Gynt Suites! Apparently every record company in the world is determined to have its own entry in this peculiar Scandinavian sweepstakes. Ibsen himself felt that Grieg's incidental music was too sweet and superficial for the theme of his play. But where would music appreciation courses be without it? Anyone who has heard the Angel recordings by Beecham or Barbiroli of the complete music for Peer Gynt for soloists, chorus, and orchestra is never really going to be satisfied again with the orchestral suites. But Karajan certainly gives it his ardent all, molding every moment in the fashion that is his own, building dazzling orchestral climaxes with the Berlin Philharmonic, and behaving in general as though the entire score had just been discovered in a forgotten attic in Potsdam. To lift this enterprise further out of the flatlands of banality, the conductor and his forces round out the concert with three pieces that make up Grieg's incidental music for Sigurd Jorsalfar (Sigurd the Crusader), a play by the Norwegian dramatist Bjørnstjerne Bjørnson. The score has rarely been recorded complete before, but I am afraid that devotees of light classical radio programs will recognize the concluding Huldigungsmarsch all too well. P.K.

RECORDING OF SPECIAL MERIT


Performance: Very commendable
Recording: Good

Rinaldo, which Handel composed in 1711 as the first Italian opera specifically intended for London audiences, was enormously successful, both with the public and in establishing the composer's reputation. It is usually described as one of his "magic" operas, for in it are all kinds of elaborate visual effects: as Winton Dean points out in Handel and the Opera Sera (Oxford University Press, 1970), Armida: a sorceress and Queen of Damascus, "makes her first entrance 'in air in a Chariot drawn by two huge Dragons, out of whose Mouns issue Fire and Smoke.' Later in the act, 'a black Cloud descends, all fill'd with dreadful Monsiers spitting Fire and Smoke on every side. The Cloud covers Almi-
renza [fiancée of the soldier-hero, Rinaldo] and Armida, and carries "em up swiftly into the Air. . . ." Among the other stage paraphernalia are mermaids, boats, a mountain that disappears, armies, and a stage battle. Ceci R. De Mille couldn't have done it better.

What of the music? Well, at least as displayed by about fifty-two minutes of excerpted scenes and arias, it has more than its share of impressive moments. Two arias, Rinaldo's "Cantate al Chiarimento," and Armida's battle aria, are very satisfactory. The sonics, barring slight coloration of the woodwinds, are useful but unspectacular. I should nonetheless state that the delightful trio from the first act of Figaro [in which Werner Krenn sings the role of Basilio, the singing master] is not especially found outside of complete recordings, and the same applies to the ensembles from Cosi Fan Tutte and the lovely soprano aria from the incomplete opera Zaide. In any case, the set is a fine tribute to the gifts of the much-lamented conductor.

The performance itself is commendable. Simon brings great enthusiasm to his task, and some good stylistic details are included. The orchestra plays well, even though there are more refined and precise ensembles to be heard elsewhere. Of the cast, Arleen Auger is an enchanting Armida, Rita Shane's Armida is satisfactory but a bit unsteady in the higher reaches. Beverly Wolff in the title role (originally an alto castrato part) handles her two totally different arias impressively, and Raymond Michalski as Argante. King of Jerusalem, deals manfully, albeit with a dry vocal quality, with his roulades. Finally, Martin Isepp as the continuo harpsichordist and Hans Kneihl, playing the brief recorder obbligato in Almirena's bird aria, should be singled out for praise. The sonics, barring slight coloring of the woodwinds, are useful but unspectacular.

MOZART: Opera Excerpt. Le Nozze di Figaro: Overture; Casa sento (Act I). Non più andrai: Voi che sapete; Crudel, perch'è finora; Deh vieni, non tardar. Idomeneo: Overture. The recorded performances currently listed in Schwan are chiefly topnotch virtuoso ensembles playing modern instruments. The pair of BASF (Harmonia Mundi) discs under consideration here feature the Stuttgart-based Collegium Aureum playing the instruments of Mozart's time or modern reconstructions thereof. Thus the B-flat Serenade is done with basset horns in place of the modern alto clarinet and natural unvalved horns instead of contemporary instruments. Parallel practice is observed in the two other works.

The strictures imposed by the older-style instruments make for a rather less taut and virtuosic performance than one hears in most other recordings of the serenades, but certainly the colors are more differentiated in terms of the wood color among the contrapuntal pairs of players. The oboes in particular have a more penetrating quality, relative to the entire musical texture, than we are used to nowadays. The end result is not merely a study in musical antiquarianism, but a vital recreation of something close to what Mozart and his contemporaries must have heard.

The playing is remarkably fine, the recorded sound excellent.

MOZART: Symphony No. 29, in A Major (see The Basic Repertoire, page 53)

RECORDING OF SPECIAL MERIT

ROCHBERG: String Quartet No. 3. Concord String Quartet. NONESUCH H 71283 $2.98

Performance: Magnificent Recording: Superb

RECORDINGS OF SPECIAL MERIT


MOZART: Serenade No. 11, in E-flat (K. 375); Serenade No. 12, in C Minor (K. 388). Wind Ensemble of the Collegium Aureum. BASF K.HB 29312 $5.98

Performances: Flavorsome Recordings: Good

It has always been a favorite pipe dream of mine that I would have at my command, for some festive occasion, a crack ensemble of friendly wind players from Yale or the Blue Hill, Maine, summer music school to grace the affair with one or more of the Mozart wind serenades. I love these three masterpieces with a passion, and I am forever astonished at how often they are different in character they are from one another—the untrammelled expansiveness of the B-flat for thirteen instruments, the refined lyricism of the E-flat, and the stern terseness of the C Minor with its amazing canonic mimicry.

The recorded performances currently listed in Schwan are chiefly topnotch virtuoso ensembles playing modern instruments. The pair of BASF (Harmonia Mundi) discs under consideration here feature the Stuttgart-based Collegium Aureum playing the instruments of Mozart's time or modern reconstructions thereof. Thus the B-flat Serenade is done with basset horns in place of the modern alto clarinet and natural unvalved horns instead of contemporary instruments. Parallel practice is observed in the two other works.
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Desmond Dupré (gamba). L’OISEAU-LYRE OLS 154 $5.98

Performance: Distinguished
Recording: Good stereo transfer

Alessandro Scarlatti, father of Domenico of the keyboard sonatas, is always given prominence in textbooks for his role in developing the Neapolitan opera, the cantata, and the favored da capo vocal aria. But when it comes to hearing the music, on records or in concert, Alessandro is always given second place. Oh, on occasion some singer still will use an aria or two, heavily romanticized, as a warm-up, but you have to investigate far and wide, mostly on discs, to get a deeper impression of what the man is musically all about. A hearing of the three present discs reveals some noteworthy characteristics. At least in the area of Alessandro’s vocal output: a decided melodic flair, harmonic subtleties (on occasion with some surprising chromatics), vigor but nearly always a feeling of Classical containment, and, far from least, an understanding of the beauty of the human voice.

Some of the containment may be heard in the two languorous duet cantatas on the L’Oiseau-Lyre disc, in which the texts concern passion unrequited, loss of love, and a kind of galant complaint, never life-and-death urgency, and they are totally representative of the Arcadian ideal. This recording, originally issued monophonically in 1957, sounds very good in its electronically enhanced stereo format. And perhaps the best moment at the conclusion of its second side. The performances are stylishly conceived (there is only the lack of da capo embellishment, admittedly a tricky matter with duets, that stamps this record a product of the Fifities rather than the Seventies). With excellent vocal work by Jennifer Vyvyan and Elsie Morison and superb support from the late Thurston Dart at the harpsichord. Texts and translations are included.

The Musical Heritage disc devoted to three cantatas, one of them in two totally different versions, is very enterprising as to repertoire and is very well performed. The texts again concern love problems, amorous pleasures and cruelty, sighs and wounded hearts, and there is much opportunity for word-painting and expression of affect. All four works are excellent cantatas, though if I had to pick a favorite it would be La Pazzia, which begins with a descriptive aria likening the love-stricken protagonist to a moth killing itself in a flame and concludes with a symbolic canon to serve as the flight of the soul from the situation. The young American soprano Neva Pilgrim does well with these pieces; she has a very pretty voice, but, perhaps because of a more distant mike placement, her sound is a bit wooly and the words are not always distinct. I hope that the next time she sings this kind of repertoire she makes more effort to vary color and dynamics— that is, to get more emotion out of the words and less out of the cadences. Likewise, her partners, who give excellent support overall, tend to play with a bit too much undifferentiated legato. Stylistic considerations are well taken care of, ranging from Louis Baguer’s fine realizations on the harpsichord to some effective da capo embellishments. Except for the balance problem noted, the reproduction is very good, and texts and translations are provided. The other MHS disc is devoted to a variety of Alessandro’s output, vocal and instrument...
tal. and a similar brief survey for Domenico. There are brief songs (one of them, "Ruggi- 
dose, odorose," from the canzona La Vio-
letta, is one of those standard Old Italian 
Arias beloved of Tito Schipa and others), sev-
eral for voice with flute or violin as obbligato 
instrument, a soprano and continuo aria from 
an opera, a charming Quartet in F Major for 
three instruments and continuo (called a Son-
ata in F in other recordings), and a typically 
Czerny-like harpsichord toccata. Domenico 
is represented by two relatively unfamiliar 
keyboard sonatas and, rather rarer, an arietta 
and a cantata, both of which are interesting 
pieces but which don’t, I think, stand up to 
Domenico’s better-known achievements.

Charlotte Lehmann possesses an ingratiat-
ing soprano voice, but neither she nor her 
colleagues seem to attempt to follow Baroque 
stylistic procedures (no embellishment, for 
example); the keyboard player bangs away at 
his instrument without regard for the possi-
bilities of touch, and the instrumental playing 
is more serviceable than refined. However, it 
is enjoyable, intimate music for the most part, 
and the recording, barring a too close-up harp-
sichord, is good. Most of the texts and transla-
tions are provided.

I.K.

SCHUMANN: Humoreske, Op. 20; Sonata No. 
TURNABOUT TV -S 34533 $2.98.

Performance: Good 
Recording: Good

After enduring a generation of super-brilliant 
virtuosos, we seem at last to be getting some 
younger pianists who, without any less techni-
cal prowess, are able to play Schumann in the 
full-blooded, romantic manner that his music 
demands. Anton Kuerti and Stephen Bishop 
are two that come to mind, and now we have a 
third in the young American Jerome Rose.

The F Minor Sonata is an uneven work 
compared with the greatest of Schumann’s 
keyboard output; the opening movement, in par-
ticular, never really gets off the ground. But 
the slow variation movement on a theme of 
Clara Wieck becomes genuinely moving here 
Mr. Rose’s performance, and his reading of 
the finale realizes to the full its virtuosic fire. 
His treatment of the scherzo is a bit careful 
for my taste, though, and there the rival Kuer-
ti performance on the London Stereo Trea-

burel label has a slight edge.

The Humoreske is a kaleidoscopic se-
quence of twenty short pieces, sharply con-
trasted in mood: serene, violently impetuous, 
broodingly ruminative. Again, however, the 
collection as a whole does not quite equal in 
poetic sensibility and musical cohesion such 
earlier companion works as Carnaval or the 
Op. 12 Fantasiestücke. Nevertheless, Mr. 
Rose’s reading makes a thoroughly convinc-
ing case for the music, and the disc all told is a 
very good buy. The sound is excellent. D.H.

SCHUMANN: Symphony No. 3, in E-flat 
Major, Op. 97 ("Rhenish"). New York Phil-
harmonic, Bruno Walter cond. Symphony No. 
4, in D Minor, Op. 120. London Symphony 
Orchestra. Bruno Walter cond. PARNASSUS 
$8 86.00 (available from Parnassus Records, 
P.O. Box 281, Phoenix, N. Y. 12464).

Performance: Excellent 
Recording: From pre-War 78’s

Both of these symphonies are works one 
would have expected Bruno Walter to remake 
in stereo, for his affinity for Schumann, and

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his identification with the "Rhenish" in particular, were well known. He did not remake either of them, though, and, since Columbia and EMI have shown no interest in reissuing their respective recordings, the enterprise shown by Parnassus in the form of this disc is especially commendable. What one remembers of Walter's Schumann is likely to be described in such terms as "mellow" and "affectionate", it is good to be reminded, as we are here, how much inspiring vigor went into his interpretations, too.

The sound of the 1941 Columbia "Rhenish" is a little thin, that of HMV's 1938 Fourth rather dim—but then, the same might be said of the respective originals. In any event, this is not a record anyone would consider as a first choice for either work, but it is a valuable document of an important conductor in repertoire for which he was especially well suited. Listeners interested on that basis will be able to make their own adjustments (mechanical and/or psychological) to the faded sonics.

Speaking of documentation, two minor errors regarding Columbia's recording of the "Rhenish" are to be noted in the very generous annotative insert provided by Parnassus:
(1) the numbers given for the original 78-rpm discs are not "matrix numbers" as stated, but catalog numbers;
(2) release was not limited to the United States, for English Columbia (prime its parting of the ways with its American namesake) issued it on both 78-rpm and LP discs.

R.F.


Performance: Very good
Recording: Good

The Beaux Arts Trio (Menahem Pressler, Isadore Cohen, and Bernard Greenhouse) is one of the best, and that is especially fortunate in the case of this album. The Robert Schumann piano trios—particularly No. 1, in D Minor—are present problems for any team of grand music players and recording engineers. Save in his solo piano music and songs, Schumann's chosen medium is always the most effective conveyer of his particular message. For all the richness of musical ideas, Schumann's apparent lack of confidence in instrumentation led him to thicken textures unnecessarily, so that it turns out to be quite a job for musicians and recording engineers to achieve a reasonably transparent sound that will make the musical texture wholly intelligible and yet preserve the body of sonority that Schumann desired (hence the tinkering in past generations with the orchestrations of the Schumann symphonies).

The D Minor Trio is by far the most passionate in expressive content and richest in musical ideas. The fleeting ethereal choral episode in the first movement forever haunts one, and the deeply somber slow movement is, for me, almost the finest in all of Schumann's chamber music. For all the beauties of the Beaux Arts Trio performance, however, I don't think the Philips recording team has overcome the problem of achieving a clear sonic texture. The cello sonority, in particular, seems buried a good part of the time in the end movements. Perhaps a closer miking should have been attempted here.

For the other trios, which are more trans-
parently scored, but less fertile in ideas, the middle-distance microphoning is ideal. I find the F Major Trio the best-made of Robert Schumann’s three, with the lively opening movement and dreamy slow movement as high points. The late Op. 110 is a very mixed bag, in which striking moments—such as the pizzicato col arco fugato episode in the first movement and the turbulent middle section of the slow movement—become swamped by obsessively repetitive rhythmic figuration.

Clara Schumann’s G Minor Trio is believed to have been written at about the same time as her husband’s Op. 63. It is no match for Op. 63 in passion and breadth of utterance, but the piece has much charm, in particular the captivating tempo di menuetto scherzo, and it is beautifully written for the piano trio.

Unless I were an all-out Romantic-chamber-music enthusiast or a Schumann specialist, I’m not sure I’d want to invest in this whole package, but I would certainly acquire the first disc of this set, containing the D Minor and F Major trios, were it to become available separately.

D.H.


Performance: First-rate
Recording: Very good

Last year, from the same source, we had a splendid record of Strauss’ first and last works for wind ensemble, the one-movement Serenade, Op. 7 (which preceded the Op. 4 Suite, despite the opus numbers), and the Sonatina No. 2, retitled “Symphony” by Strauss’ publisher. The latter (which Strauss labeled “Opus posthumous”) was completed in 1945 and bears the heading “The Happy Workshop”: the F-Major Sonatina, written two years earlier, is headed “From an Invalid’s Workshop.” Both are easy-going, undramatic works in which Strauss ruminated over his long and productive life in a mellower mood than that of his celebration of himself nearly a half-century earlier in Ein Heldenleben. While suggestions of Mozart can be heard in the “Symphony,” Sonatina No. 1 is all Strauss, with unescapable echoes of Rosenkavalier and the spirit of Till dancing through the finale (not too boisterously).

The early works too are interconnected, for it was the Serenade that broke the ice for the young Strauss (then seventeen) with Hans von Bülow and led to his commissioning the Suite. This is a much more elaborate work than its predecessor—three times as long and in four movements instead of one. Odd movements to associate with Strauss—Praeludium, Romance, Gavotte, Introduction, and Fugue—but an intriguing work, if hardly an irresistible one.

Neither of these works could be called irresistible, really. Those for whom one disc of Strauss for winds will suffice are advised to go for the earlier release (6500.097), for both works on it are a bit more appealing than the corresponding ones on the new disc. But those who do want the complete collection will find the same high standards of interpretation, execution, and engineering gratifyingly evident here.

R.F.

SZYMANOWSKI: Four Etudes, Op. 4; Fantasia in F Minor, Op. 14; Metopes, Op. 29; (Continued on page 130)
Prokofiev's Romeo and Juliet
A delightful dilemma: two new complete recordings to choose from

Reviewed by RICHARD FREED

Margot Fonteyn and Rudolf Nureyev in the Royal Ballet film version of Romeo and Juliet.

Prokofiev's Romeo and Juliet is generally considered the finest full-length ballet score composed in this century, and many regard it also as the composer's true masterpiece for orchestra. Like Berlioz and Tchaikovsky before him, Prokofiev succeeded, as his biographer Israel Nestyev wrote, "in finding his own independent approach to this grand theme," and the work, undertaken in his most lyrical period, was especially close to his own heart. "In Romeo and Juliet," Prokofiev declared, "I have taken special pains to achieve a simplicity which will, I hope, reach the hearts of all listeners. If people find no melody and no emotion in this work, I shall be very sorry—but I feel sure that sooner or later they will."

Note that he wrote "reach the hearts of all listeners": although he composed the music for Leningrad's Kirov Ballet, he intended that it should be effective enough to "reach the heart" by itself. The music was in fact well received in a concert performance in Moscow a month after its completion, in the fall of 1935, but it was then rejected by both the Kirov and Moscow's Bolshoi Ballet as "undanceable," and the Ballet School in Leningrad turned it down, too. The danced premiere took place in Brno at the end of 1938, by then Prokofiev had put together the first two of the three orchestral suites he extracted from the score (in addition to ten pieces for piano), and he and others had conducted them in both Europe and America. By the time the Kirov did produce the ballet, on January 11, 1940 (starring Galina Ulanova, who had danced in the Brno premiere), Prokofiev had made several additions and had enlarged the orchestra, at the request of the dancers and the choreographer, Leonid Lavrovsky. (Evidently the acoustics of the Kirov Theater—the former Maryinsky—were such that the dancers had difficulty hearing certain passages as originally scored.) The following year further additions were made, and there were still more for the Bolshoi premiere of 1946.

Ulanova, Lavrovsky, and others who had had misgivings about the work soon grew to love it passionately, and by now it has been roundly acknowledged as the masterpiece it is, in such productions as Kenneth MacMillan's for Britain's Royal Ballet (the version danced by Fonteyn and Nureyev in the widely circulated Paul Czinner film), Frederick Ashton's for the Royal Danish Ballet, and especially the late John Cranko's for his Stuttgart Ballet, as well as those of the Kirov and Bolshoi companies. (Romeo and Juliet was the showpiece for the Bolshoi's first visit to the West, opening its run at Covent Garden in 1956.)

All of which makes it more than a little surprising that London and Angel have each entered the marketplace this fall bearing brand-new recordings of the complete score of Romeo and Juliet—surprising not because the releases are simultaneous, but because we have had to wait so long for them. (Angel claims "the first truly complete recording," London proclaims "World Premiere Stereo Recording"; André Previn's performance with the London Symphony Orchestra for Angel was taped a few weeks earlier, but Lorin Maazel's on London reached record shops a week or so ahead of it.)

Music from the ballet, both in the form of Prokofiev's own concert suites and in the sequences devised by various conductors, has figured prominently in concerts and recordings by major American and European orchestras, but a concert performance of the entire score is a genuine rarity (the one given by Maazel and the Cleveland Orchestra last May, a month before their recording sessions, may have been the only one given in America), and until now the only complete recording was the pre-stereo version conducted by Gennady Rozhdestvensky (formerly on MK imports and Westminster, now on a pair of wretched-sounding Colosseum discs and apparently cut). This state of affairs may have led many to conclude that the two-and-a-half-hour score would not stand on its own without the stage action and that the suites offer all there is of real musical value, but, as it happens, there are remarkably few uninteresting bars in this vast work (after hearing each of the new sets more than twice, I found I was actually eager for more). Most of the themes can be heard in the suites, but it is only in hearing the work in full that one can appreciate what Prokofiev did with them in the way of Leitmotif.

If the suites have seemed to be quintessential Prokofiev, the complete score makes an even stronger impression in that respect. In this music, more than in any other of Prokofiev's orchestral works, we seem to find the distillation of his style—a summing-up of everything he had done before and a foretaste of everything he was yet to do. Perhaps it is only because this is his longest orchestral composition, or because it occupied him over so long a period (during which he composed and revised several other significant works), that one is able to find so much in it, but, in any
One in the event, it is all there. The magnificent slow movement of the Fifth Symphony must have grown directly out of the love music in this ballet, while other sections contain the kernels of portions of the Sixth and the Seventh as well as a ballet, the latter ballet Cinderella and the gavotte which concludes Act I is a very straightforward elaboration of the one in the Classical Symphony of 1917. It is not only these actual resemblances, though, that give the work its special place in Prokofiev's catalog, but the pervasive kind of passion—his kind of lyricism, his kind of drama, his kind of humor, his kind of orchestral speech—raised to a level of intensity (at times disarmingly understated, at times unabashedly direct) seldom equaled and never so brilliantly sustained in his other compositions.

Even in this expanded orchestration, Prokofiev preserved a good deal of the original chamber-music texture in several of the most poignant sections. His use of mandolins, the viola d'amore (who else but Hindemith wrote for that instrument in the Thirties?), the solo cornet instead of trumpet, etc., is unostentatiously imaginative: in each case it is simply clear that no other device would have been so effective in capturing the mood. One could make a long and fascinating study of Prokofiev's use of the orchestra in this work; it is a gorgeous accompaniment for dancers, but it might well be thought of as the most unlimited in scope of his symphonies.

It would be hard to think of any conductors active today who are more superbly suited to interpret this score than Maazel and Previn, both of whom have shown countless times their extraordinary affinity for such material. Their predecessor Rozhdestvensky, of course, is a noted Prokofiev specialist, and he recorded Romeo and Juliet with the orchestra he had conducted in many actual danced performances in the Bolshoi Theatre. Neither Maazel nor Previn has those credentials, but he has evidently conceived their interpretations in terms of what makes sense to the ear, and not simply as recollections of the theater. Both have been so successful that the only frustration likely to confront the listener is the task of choosing between the two. That is not to suggest that there are not marked differences, for Maazel is certainly not to suggest that there are not marked differences, for Maazel is certainly not to suggest that there are not marked differences, for Maazel is certainly not to suggest that there are not marked differences, for Maazel is certainly not to suggest that there are not marked differences, for Maazel is certainly not to suggest that there are not marked differences, for Maazel is certainly not to suggest that there are not marked differences, for Maazel is certainly not to suggest that there are not marked differences, for Maazel is certainly not to suggest that there are not marked differences, for Maazel is certainly not to suggest that there are not marked differences, for Maazel is certainly not to suggest that there are not marked differences, for Maazel is certainly not to suggest that there are not marked differences, for Maazel is certainly not to suggest that there are not marked differences, for Maazel is certainly not to suggest that there are not marked differences, for Maazel is certainly not to suggest that there are not marked differences, for Maazel is certainly not to suggest that there are not marked differences, for Maazel is certainly not to suggest that there are not marked differences, for Maazel is certainly not to suggest that there are not marked differences, for Maazel is certainly not to suggest that there are not marked differences, for Maazel is certainly not to suggest that there are not marked differences, for Maazel is certainly not to suggest that there are not marked differences, for Maazel is certainly not to suggest that there are not marked differences, for Maazel is certainly not to suggest that there are not marked differences, for Maazel is certainly not to suggest that there are not marked differences, for Maazel is certainly not to suggest that there are not marked differences, for Maazel is certainly not to suggest that there are not marked differences, for Maazel is certainly not to suggest that there are not marked differences, for Maazel is certainly not to suggest that there are not marked differences, for Maazel is certainly not to suggest that there are not marked differences, for Maazel is certainly not to suggest that there are not marked differences, for Maazel is certainly not to suggest that there are not marked differences, for Maazel is certainly not to suggest that there are not marked differences, for Maazel is certainly not to suggest that there are not marked differences, for Maazel is certainly not to suggest that there are not marked differences, for Maazel is certainly not to suggest that there are not marked differences, for Maazel is certainly not to suggest that there are not marked differences, for Maazel is certainly not to suggest that there are not marked differences, for Maazel is certainly not to suggest that there are not marked differences, for Maazel is certainly not to suggest that there are not marked differences, for Maazel is certainly not to suggest that there are not marked differences, for Maazel is certainly not to suggest that there are not marked differences, for Maazel is certainly not to suggest that there are not marked differences, for Maazel is certainly not to suggest that there are not marked differences, for Maazel is certainly not to suggest that there are not marked differences, for Maazel is certainly not to suggest that there are not marked differences, for Maazel is certainly not to suggest that there are not marked differences, for Maazel is certainly not to suggest that there are not marked differences, for Maazel is certainly not to suggest that there are not marked differences, for Maazel is certainly not to suggest that there are not marked differences, for Maazel is certainly

Performance: Very good
Recording: Good

The music of Karol Szymanowski (1882-1937) appears at long last to be getting the kind of attention on records it deserves. Henryk Szyrung's fine Philips disc of the late Violin Concerto No. 2 was recently released, and with this Argo collection and previous issues on the Orion label, we have a good chunk of the piano music. However, I have yet to find first-rate stereo recordings of the Op. 50 mazurkas, the Harmonie Feuilleton or the Symphonie Concertante for piano and orchestra—all works that have made Szymanowski's position in Polish music comparable to that of Bartók in Hungary, Falla in Spain, or Vaughan Williams in England.

However, before achieving his special amalgam of folk roots and the grand classic tradition, Szymanowski turned out reams of brilliantly composed music reflecting all the various influences under which he came. ranging from Richard Strauss to Alexander Scriabin and Claude Debussy. Such is the general nature of the collection so beautifully played here by Martin Jones.

The early études are heady post-Romantic fare, handsomely written for the instrument and peaking in intensity in a gorgeous slow movement (No. 3). The slow introduction of the F Minor Fantasie echoes in a curious way the celebrated masterpiece in the same key by Chopin, but then proceeds along quite different, more wayward and impetuous lines. The Metopes, evocations of figures from the Odyssey, and the Masques, sharply etched character pieces (Schéhérazade, Tantris le Bouffon, Sérénade de Don Juan), show Szymanowski in his full-blown impressionist phase, incisively strongly with elements of Scriabin. The demands made on the pianist in terms of decorative passagework and subtle differentiation of rhythm and color are extreme, but Mr. Jones passes every exacting differentiation of rhythm and color with flying colors. Certainly his reading of the Metopes is more effectively communicative than that of Regis Benoît on the Orion label, partly because of the Argo disc's superior recorded sound.

D.H.


Performance: Has brilliant moments
Recording: Excellent

Having transformed the Stockholm Philharmonic Orchestra into an ensemble of top-level international calibre, Antal Dorati is in the process of doing much the same thing with our own National Symphony Orchestra. As a report on work-in-progress, Dorati's recording with the National of the Tchaikovsky Fourth Symphony is a fascinating document. The celebrated pizzicato scherzo comes off with tremendous éclat, and the finale is splendidly rousing in rhythmic vitality and brilliant in execution without lapsing into the vulgarity characteristic of too many other recorded performances. I wish only that the first movement, the real core of the symphony, had more flow: the seams show all too clearly here, though the quasi-waltz episodes are exquisitely played. The slow movement, unhappily, is as foursquare as can be, its inherent poetry conscious here for its absence—at least to my ears. The Karajan reading on Deutsche Grammophon 139017 is my choice among the presently available crop of more than twenty stereo recordings. D.H.

TELEMANN: Trauerkantate, Du aber Daniel gebe hin (see BACH)

VIVALDI: F.Estra Armonica, Op. 3: Concerto No. 8, in A Minor; Two Violins, Strings, and Continuo (P. 2); Concerto No. 10, in B Minor, for Four Violins, Strings, and Continuo (P. 148); Concerto No. 11, in D Minor, for Two Violins, Cello, Strings, and Continuo (P. 250). Antal Dorati cond. LONDON CS 6793 $5.98.

Performance: Full-blooded
Recording: Excellent

All three of the Vivaldi Op. 3 concertos on this disc, especially No. 11, are well known and have not suffered from a lack of previous recordings. Pinchas Zukerman plays them with enthusiasm and vigor, but, since he is not particularly concerned with the niceties of Baroque style (though he is careful about starting solo trills on the upper note), these are basically nineteenth-century performances in terms of phrasing, graded dynamics (including some hairpin detailed effects), and a generally, if not always, heavy texture. On the other hand, the harpsichord, which can be heard very well, provides some scintillating sparkle. Overall, if these exceedingly well-played performances cannot be described as echt Baroque (not by a long shot!), they do have an infectious quality about them and are quite the opposite of the dry, antiseptic playing that often (and incorrectly) is taken for true Baroque style. It is impossible to hear the way Zukerman and his forces execute these concertos without feeling that every performer involved was enjoying himself to the utmost. In other words, these come across as involved interpretations. Now, if Zukerman could only dig a bit more into the details of Baroque aesthetics—such details as the reasons why the phrasing of the time was not long-line and the difference between the controlled emotion of the Baroque and the free-wheeling outpourings of the nineteenth century—he would indeed be a hard man to beat. I.K.

WAGNER: Operatic Arias (see Collections—Lauritz Melchior)

RECORDING OF SPECIAL MERIT

ZELENKA: Lamentationes Jeremiae Prophetae, Nos. 1, 2, 4, and 5. N. Scalda Casei (alto); Theo Almeymer (tenor); Karel Berman (bass). Ars Rediviva, Milan Munclinger cond. NOME SUCH H 71282 $2.98.

Performance: Vibrant
Recording: Very good

Jan Dismas Zelenka (1679-1745), a Bohemian composer at the court of Dresden, is one of those minor composers now in the process of being discovered. Until now, few of us have heard much more of his work than some sonatas for wind instruments, which revealed an interesting, albeit eclectic, musi-

(Continued on page 133)
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IT is perhaps more than a little significant that, of a three-volume Vox survey of the American string quartet from the eighteenth century to the latter part of the twentieth, the first volume (Vox SVBX-5301) extends to such early twentieth-century composers as George Chadwick and Charles Griffes, while the third, which Vox has just released, is three discs worth of music composed after World War II. (A projected second volume will fill the chronological gap.) So much for the eighteenth and nineteenth centuries.

The Concord, a young and gifted quartet of the best imaginable sort, is the ideal choice for the modern assignment, a collection called "The Avant-Garde String Quartet in the U.S.A." The musical choices are excellent too, and I have only one reservation: it is all too much of a muchness. No one is going to be able to sit down and take it all in at one time — I know, I tried — and it is not at all easy to sort it all out. Basically, I suppose, there are three kinds of pieces here. The first is an American expressionism based on Central European models but in a quite independent vein. The second is a type of work based on densities, coloration, and a concern with sonority itself. The third kind of piece might be described as mystical/numerical.

The expressionist pieces — unlike the other two kinds — go somewhere, often with a dramatic vengeance. The classic American examples are the quartets of Roger Sessions and Elliott Carter and the more intellectual quartets of Milton Babbitt. None of these are recorded here, but the expressionist examples that are included are certainly excellent and important ones: quartets by Stefan Wolpe, Leon Kirchner, and Jacob Druckman. The Kirchner, with its striking and expressive integration of tape and strings, is especially notable.

The second type of piece is represented by the three most important composers associated with John Cage in the 1950's: Morton Feldman, Earle Brown, and Christian Wolff. Ironically, although these composers are known for their use of graphic scores and open-form or mobile compositions, only Wolff's Summer (1961) is a complex, wide-ranging work chock full of so many things that two hearings hardly suffice to grasp it all. It is a work that might — perhaps — grow on one.

The ninth piece in the set is a toughie. Lejaren Hiller's big, quarter-tone String Quartet No. 5 (1962) is a complex, wide-ranging work chock full of so many things that two hearings hardly suffice to grasp it all. It is a work that might — perhaps — grow on one.

It is hard not to like anything that the Concord Quartet does. The variety of skills required of them here is truly astonishing, yet the performances are never merely show-off exhibitions, but always intensely musical. The recording is excellent, but I have a tip for Vox. Put the Cage and Crumb on a disc by themselves and have a winner. For the rest: lots of good stuff, but I prescribe listening in small doses.

THE CONCORD STRING QUARTET

Reviewed by Eric Salzman
cal mind. Zelenka seems also, however, to have composed a great deal of sacred music (his official title in Dresden was "church composer"), including the very impressive Lamentations of the Prophet Jeremiah. There are quite a number of musical settings of these texts for the office of matins on Thursday, Friday, and Saturday of Holy Week, notably Couperin's Leçons de Ténèbres. But the Leçons belong to the refined, introverted style of the French rococo, whereas Zelenka's are highly operatic and more Italianate, veering in declamation between straight recitative, arioso, and aria.

Four of Zelenka's six lamentations are recorded here, one each for alto and tenor and two for bass. There is a full instrumental accompaniment, as well as individual obbligatos such as the solo flutes and cellos in No. 5. The singing of the introductory Hebrew letters (a standard practice) evokes from Zelenka some remarkably Bach-like characteristics, reminiscent of some of the ornate solo arias with obbligato instruments in the B Minor Mass or the Magnificat. Elsewhere, there are things one might expect of Handel or Telemann, including some interesting fugal writing (the "Jerusalem, return to God" refrain at the end of Nos. 1 and 4), where the solo bass voice takes one of the fugal lines. These four settings are quite powerful in their expressive effects, though they are uneven in comparison with the works of Zelenka's better-known contemporaries. The performance is a good one, vibrant and vital; the singing is commendable, and the recorded sound is very satisfactory. Texts and translations are included.

COLLECTIONS


Performance: Excellent
Recording: Excellent

Dietrich Fischer-Dieskau, whose musical talents know no bounds, serves up an admirable Baroque recital with this collection of cantatas and arias. The sacred part is well represented by two gorgeous Bach arias for low voice with flute and continuo and a fine Telemann cantata. The secular is represented by a lovely, quiet aria, minus its middle section and da capo, from Handel's opera Rinaldo, arranged for alto, strings, and continuo (it's possible that this arrangement, which is quite effective, is itself Baroque, for such adaptations were common during that period), and, to conclude, a c. 1715 secular cantata of Rameau, Théâtre, for bass, violin (here played on the flute), and continuo, is quite a rarity; indeed, this may well be a first recording. To all of this material Fischer-Dieskau and his partners bring a wealth of expression and technical finesse. I think perhaps only in the Rameau is there the slightest cause for dissatisfaction, and then it's only because Fischer-Dieskau just does not sound very idiomatic either in French or in the refined kind of declamation this music requires. Altogether, however, this is a first-rate program.
impeccably performed, and the sonics are very satisfactory. Texts and translations are provided.

I.K.

RECORDING OF SPECIAL MERIT

PAUL BERNARD: Sounds of XLIth Century Spain. Joan de Segovia; Francisco Fernandez Palero (court-chapel organist in Granada), Pablo de Soto (alternate court organist in Madrid), Pedro de Soto (organ of Santa Maria, Daroca, Spain, in other pieces). ANGEL S 36914 $5.98.

Performance: Delightful and scintillating

Recording: Excellent

This disc, which bears the subtitle "Historic Organs of Europe, Vol. 1," is devoted to a fascinating collection of sixteenth- and seventeenth-century music played on two marvelous instruments that date back to the sixteenth century. The composer, Joan de Segovia, Francisco Fernandez Palero (court-chapel organist in Granada), Pablo de Soto (alternate court organist in Madrid), and Pablo Moreno (organ of San Jaime, Calatayed, in Joan de Segovia; organ of Santa Maria, Daroca, Spain, in other pieces). ANGEL S 36914 $5.98.

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Performance: Delightful and scintillating

Recording: Excellent

This disc, which bears the subtitle "Historic Organs of Europe, Vol. 1," is devoted to a fascinating collection of sixteenth- and seventeenth-century music played on two marvelous instruments that date back to the sixteenth century. The composer, Joan de Segovia, Francisco Fernandez Palero (court-chapel organist in Granada), Pablo de Soto (alternate court organist in Madrid), Pablo Moreno (organ of San Jaime, Calatayed, in Joan de Segovia; organ of Santa Maria, Daroca, Spain, in other pieces). ANGEL S 36914 $5.98.

Performance: Delightful and scintillating

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Recording: Excellent

This disc, which bears the subtitle "Historic Organs of Europe, Vol. 1," is devoted to a fascinating collection of sixteenth- and seventh
endings for certain scenes, some damaging cues, and recorded sound that shows its age.

The singing that emerges from these grooves, however, is transcendental. Those who wish to enjoy this kind of Heldentenor achievement are urged to explore a disc devoted to Melchior’s even more youthful (1923-1924) recordings on Heliodor 2548 749, another one comprising his fine American releases on Victrola 1500 dating from the late 1930’s, and his final American series now available on the Odyssey label. There are also two excellent Austrian imports (Preiser LV 11 and LV 124), though they duplicate some of the Seraphim material. The current Melchior discography is rewardingly full, and this is the way it ought to remain.

G.J.


Performance: Competent
Recording: Good

A little Chopsticks can really go a long, long way. Whether the bulk of what is on this disc seems fascinating, boring, or amusing must be largely a matter of the listener’s own temperament or mood at the time of confrontation. Borodin’s Petite Suite, for piano solo, is a moderately interesting work, but it is not particularly memorable. Side one of this disc also contains the set of twenty-four tiny variations for piano duet, flitting by in barely six minutes. On side two is the legendary series of paraphrases—polkas, waltzes, galops, etc.—each of which is played by one pianist while his partner persistently picks away at Chopsticks (or Tati-Tati, as the Russians call their modification of the tune: it is similar to Chopsticks, but not really the same). Borodin’s mazurka is based on the one in his Petite Suite; Liadov composed an attractive little waltz; Rimsky threw in a couple of fugues among his other contributions. What is frustrating for the listener is trying to figure out just how many pieces there really are. Douglas Towsend’s annotation states there are eighteen pieces by the four well-known Russians, in addition to what Liszt and Shcherbachev wrote, but both the liner and the label list only sixteen, including the Liszt and Shcherbachev. (The surface is divided into three bands, but nowhere is there any indication of which span any of them represents.) According to at least two sources, Borodin contributed four pieces to this sequence, but only three of them are listed here. Various members of my family counted from twenty to twenty-four pieces on this side (none volunteered to recount).

Anyone drawn to this sort of thing may admire the pianists’ endurance (I think they were married to each other when they undertook this recording) and order the record with confidence. Others may prefer to wait for an orchestral version. Nicolai Tcherepnin orchestrated the paraphrases in 1937 and Werner Janssen made his own orchestral setting in 1951, whereupon he recorded both sets for Columbia; it could happen again—but it needn’t.

R.F.
CHOOSING SIDES

By IRVING KOLODIN

THE EXTRAORDINARY ALICE BABS

Who is Alice? What is she? Taking the circumstances in the order in which they came to me: it was on January 19, 1968, that Duke Ellington presented his Second Sacred Concert in the Cathedral of St. John the Divine on Morningside Heights in New York City. Among the variety of experiences that warmed and rewarded those who braved the numbing cold that night was the extraordinary art of a soprano from Sweden named Alice Babs, who sang three numbers: Heavenly, Almighty God, and Praise God and Dance.

Details of that evening remained for me a tantalizing, hazy recollection until a tape made at a studio session shortly thereafter was finally processed for release (Fantasy 8407-8) within the last year. When everything about it had been re-experienced and re-digested, the nagging questions remained: Who is Alice? What is she? The order of vocal command that aroused amazement at the first contact in the Cathedral didn't lose any luster at a second or even a fifth hearing. What was her background? How had she developed? Where might she go from here?

A little delving into the subject has revealed that she was, as of October 22, 1966, an uncommonly fluent voice for Mozart's Exsultate, Jubilate and an affectingy unaffecting one for eight excerpts from Bach's Anna Magdalena Notebook (1725). The evidence is contained on a Swedish Society Discofi record (SLT 33170) distributed by Teldec, a European affiliate of London Records (British Decca). The further interest stimulated by the forthright, beautifully controlled quality of the Babs sound initiated a search of the bins in a New York import shop, and this turned up a companion disc, "Elizabethan Love Songs" (SLT 33206). The contents range from John Dowland's Love and Wilkes and Come again to Thomas Campion's Shall I come, sweet Love, to her and Here she her sacred lover adores. This record is dated 1971, and it suggests that among the dividends of Alice Bab's overseas travel is an increasingly fluent command of English pronunciation (which, in her sung usage anyway, is almost accentless). The vowels and consonants float so freely on her clean instrumental sound as to blend perfectly with the viols, oboes da caccia, flutes, lutes, and so forth of the Musica Holmiae with which she sings.

It would be unfair both to Alice Babs and to the reading public to create the impression that she is the greatest singer of Mozart since Elisabeth Schwarzkopf or that she is Ivie Anderson's superior as a vocalist for Ellington. I will rest on the statement that she possesses a vocal virtuosity for Ellington's music that Mme. Schwarzkopf would regard with awe and a credibility in Mozart that the gifted Ivie would have considered quite improbable.

In sum, Alice Babs is a unique singer whose vocal abilities are, as Duke Ellington said of Ella Fitzgerald, "beyond category." She has an extraordinarily even, brightly vibrant sound which, one imagines, could suit the purposes of composers from Schütz to Schoenberg—that is to say, from a florid line in a cantata of the eighteenth century to the intricate formulation in the finale of the Viennese innovator's Opus 10 Quartet.

Had I come upon these discs a few months ago, I could have pursued the investigation at the source, for Miss Babs' most recent American visit was to the 1973 Newport in New York jazz festival, during which she also recorded a full session of Ellingtonia with the composer at the piano. But other sources of information have yielded a good deal of background to explain the Swedish singer's wide-ranging aptitudes and interests.

Singing has been almost a lifelong occupation for the lady born Alice Nilsson (yes, still another singing, Swedish Nilsson), who is now probably in her forties and has three growing children. Her father was a working musician, an orchestra leader and pianist well versed in jazz, and she began to sing before she was ten. She was appearing in public at twelve, and not long afterwards went to Finland to sing for the troops waging war against the Russians in 1939. She had her first American exposure when she came here with the celebrated jazz violinist Svend Asmussen as long ago as 1962. With guitarist Ulrik Neumann they made a trio called the Swe-Danes. Their solid success included an appearance on the Ed Sullivan TV show, but there were no dazzling consequences. In fact, she was wholly new to Ellington when he heard her the next year while auditioning for a vocalist to appear with him on Swedish television. The auditions ended immediately.

Out of her varied background, which includes church singing, appearances at popular Swedish "sings" with the late Jussi Bjoerling, and tours to the Orient and Africa with Asmussen and Swedish jazz performers of comparable quality, she has evolved a vocal ability of exceptional diversity and of extraordinarily secure focus as well. She still works hard at her technique, which is why it sounds as though she does no work at all. Every note, however high or low, brief or sustained, is struck dead center. She is rarely sufficiently wide of the mark to be challenged on her in-

Versatile Swedish soprano Alice Babs is shown with Duke Ellington during rehearsals in the Gustav Vasa Church in Stockholm in 1969 for one of the composer's popular Sacred Concerts.
and when Karlheinz Stockhausen has utilized create the web of sound that is his Sinfonia, Singers a nuclear element around which to
when Luciano Berio has found in the Swingle songs-draw upon it at a cadence if she de-
without vibrato, but she can—as in the Bach
growth of her conditioning so uncommon?
oadroitness inspiring.
a Britten or a Boulez could find this newer
reason to believe that a Ginastera or a Henze,
has recently discovered it—there is every
concerto—he was and he did, Joan Sutherland
Gliere could be impelled to write a vocal
desires. Overall, Miss Babs combines a fascinat-
assiduously following Miss Babs' example—
demanding in their separate ways as Bach and
est to which more and more young people
relates to exactly the same polarity of inter-
Miss Babs' merger of musical motivations
have dealt largely with the hypo-
question for the future: Where will it lead?
ifying assortment of attributes which leaves only
s
founding her conditioning so uncommon?
If so, they should not fail to broaden their
horizons by investigating the latest instance of
Babsiana that has come my way. This is a
merry delight entitled Nooks Ark, described on
the cover of the Swedish Society Discoll
inSLT 33216) as "Ett sängspel med text
af Alf Henrikson och musik av Nils Lind-
berg." The last named is known to some atten-
dants at this year's Newport in New York fes-
tival as the arranger of material Miss Babs
brought along to sing with Ellington, but he is
much more than just a very good arranger.
The perennial tale of Noah and the Ark has
had, in relatively recent times, an appeal for
composers as diverse as Benjamin Britten
(Noye's Fludde), Igor Strawinsky (The Flood),
and Richard Rodgers (The Flowering Peach).
Lindberg's version is compacted of an image-
ry, animation, and felicity that cry out for vis-
ualization. In addition to Miss Babs, who
impersonates Gunman Noak (meaning Old
Lady Noah), the recording features Asmus-
seen in a starring role for jazz violin plus
his ayt vocalimitations of dogs, cats, pigs, and
other animals coming aboard. It begins with a
jaunty march as they load and ends with an
even jauntier version of it as they reach dry
land once more. In between, the journey is
depicted with a mixture of humor and tender-
ness in which Miss Babs is a constantly gener-
ate element. Here is a decisive demonstra-
tion that the Swedes, however serious, are not
always solemn, and that the land of Lind,
Nilsson, Björner, and others has something,
still to teach the world about singing.
[Swedish Society Discoll recordings are
available in the U.S. from import shops,
among them New York's King Karol, at 111
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1973 Summer — #13

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REPAIRING CASSETTES

Cassettes offer many convenience advantages over open-reel, but if the tape snarls or breaks, or a leader dis-connects, they’re a regular migraine headache. Frankly, if the recorded material is easily replaced, it isn’t worth trying to fix a cassette when something goes wrong. But some recordings (your child’s first words, the memorable holiday gathering of four generations of a family) are priceless, and if something lets go inside the cassette, what can you do to repair it?

Cassette-width splicing jigs and special splicing tape (never use any other kind of adhesive tape) are available at most audio dealers, and the basic technique is the same for open-reel tapes. But the two broken tape ends go into the jig, without any gap or overlap, and apply a short piece of the splicing tape to the backing—not the oxide—side of the tape. Remember, however, that in cassettes the oxide coating faces outward, away from the hub—just the opposite of the case with open-reel tapes. (With the highly polished oxide surfaces found on many of today’s cassette tapes this is all too easy to forget.)

The initial problem is getting inside the plastic shell, for almost certainly at least one end of a broken tape or leader won’t be accessible through the small openings in the front. Many top-quality cassettes have five small screws to secure the upper and lower halves of the shell together. Getting these out with a small Phillips screwdriver is easy, and you can then carefully lift off the top without disturbing the tape, rollers, and pressure-pad assembly. Unfortunately, however, most cassettes come sealed together.

After trying a dozen ways on as many brands of these permanently sealed cassettes, I’ve concluded that they simply cannot be separated reliably without damage to the two halves of the shell. There are some “repair kits” available that include new shell halves, but if your local dealers don’t stock them, simply buy any blank C-30 cassette that uses the screw-type assembly. (The quality of the cassette you buy may affect the mechanical reliability of your repair, so be sure to pick a brand you know is good.)

Open this one, and, after noting the exact tape path, replace its tape and hubs with those of the recording to be saved. Since all cassettes have the same dimensions, this is no problem. In breaking apart the old plastic shell without damaging the tape inside, I’ve found an ordinary 1/2-inch wood chisel most efficient. Start working on the rear-corner seam nearest the hub that has less tape on it and work your way around, taking care not to penetrate so deeply that you contact the tape itself. I feel I should issue a warning against using any of these implements (and I have tried them all) exposes you to the hazard of blades slipping or snapping—and cutting.

When the upper half of the shell is removed, the tape (or leader) will tend to unravel while you’re trying to make your splice, for it lacks an upper flange. A paper matchbook or a quarter on top of the tape will make life easier. After repairing the break, reassemble the cassette, taking care: (1) to thread the tape path properly, without any twists; (2) to see that the pressure-pad assembly is in place, together with the “slip sheets” that line the inner surfaces of the shell; and (3) to check that the tape doesn’t get pinched by or caught in the slots as you bring the two shell halves together. Put back the screws, without excess force (remember, you’re working with plastic), and you will have saved that irreplaceable recording.

One final note: since I cannot vouch for the accuracy of any of the cassette splicing jigs available, and since cassettes are notoriously sensitive to the slightest tape skew or misalignment, I would advise transferring your recording to a new cassette as soon as possible, if only to have an extra copy in reserve.
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