SPECIAL SPEAKER ISSUE

Why Do Speakers Sound The Way They Do?
acknowledged to be the state-of-the-art in 4-channel records. Keeping the signals separate throughout the recording and playback process makes possible superior channel separation and higher fidelity than any other disc systems achieve.

So Fisher, realizing the viability of the CD-4 system, and the increasing availability of program material in that format, has incorporated a Fisher-quality CD-4 encoder into the '14' series.

You can have Fisher with or without.

If you buy a Fisher '14' series receiver, you get CD-4 built in. If you buy an '04X' series receiver, you can still have the CD-4 built-in, if you want it you decide anytime within a year after you make your purchase. Just return your '04X' receiver to a Fisher factory-authorized service center, and they will install it for you. The total cost of your receiver plus the decoder will not exceed what you would have paid for the equivalent '14' series receiver.

So it's up to you. Which do you prefer? A receiver that leaves room for improvement? Or one that does not?

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### Important specifications of the Fisher '14' and '04X' series Studio-Standard receivers.

<table>
<thead>
<tr>
<th></th>
<th>514</th>
<th>504X</th>
<th>414</th>
<th>404X</th>
<th>314</th>
<th>304X</th>
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<tbody>
<tr>
<td>Price</td>
<td>$749.95</td>
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<tr>
<td>Power, stereo, total continuous power (rms) into 8 ohms, 20 Hz to 20,000 Hz, all channels driven:</td>
<td>180 Watts</td>
<td>180 Watts</td>
<td>88 Watts</td>
<td>88 Watts</td>
<td>76 Watts</td>
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<tr>
<td>Power, 4-channel, total continuous power (rms) into 8 ohms, 20 Hz to 20,000 Hz, all channels driven:</td>
<td>128 Watts</td>
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<td>88 Watts</td>
<td>88 Watts</td>
<td>60 Watts</td>
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<tr>
<td>Total harmonic distortion at rated output, 8 ohms, 20 Hz to 20,000 Hz:</td>
<td>0.5%</td>
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<tr>
<td>HIF-FM usable sensitivity:</td>
<td>1.8 nV</td>
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<td>FM mono harmonic distortion, 400 Hz:</td>
<td>0.2%</td>
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<td>Capture ratio (HIF at 1 mV):</td>
<td>1.2 dB</td>
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<tr>
<td>Alternate channel selectivity (HIF method):</td>
<td>60 dB</td>
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The Fisher Studio-Standard.


CIRCLE 65 ON READER-SERVICE CARD
These new 4-channel receivers leave room for improvement.
Introducing the receivers with

There's no paradox. On page 1 of this magazine, you see the new Fisher '14' series 4-channel receivers, with built-in CD-4 disc demodulator.

On the front-cover flap of this magazine, you see the new Fisher '04X' series 4-channel receivers, without the CD-4 built in. But with room for it, in the cabinet. The two series of receivers are otherwise identical.

A general description of the new receivers.

If you read any of the rave reviews on the predecessor of the '14' receivers, the Fisher '04' line, you have an excellent idea of what the new models can do. The performance specifications are identical. Which means they are sensational.

Power to spare, in stereo and in 1-channel.

Fisher was probably the first manufacturer seriously to tackle the problem of 2-channel power versus 4-channel power. The concept of "strapped" amplifiers is a Fisher engineering feature of extreme importance. In all three of the Fisher '14' receivers, turning a control on the front panel lets you move from full 4-channel operation to stereo with twice or even more than twice the power per channel.

And even the lowest-powered unit, the 914, delivers 76 watts total RMS across the bandwidth of 20 Hz to 20kHz, into an 8-ohm load, in stereo. That's enough clean power to drive four bookshelf speakers at concert volume without clipping. The 414, measured the same way, delivers 88 watts RMS, while the 514 is a real powerhouse, with 180 watts RMS, enough to drive two sets of four Fisher top-of-the-line speakers at full volume in large rooms - that's a lot of power!

The controls: Very simple, and very flexible.

Besides all the controls you expect, Fisher includes a few you don't expect on every receiver in the '14' series.

The joystick is one. It's a sophisticated version of the old-fashioned balance controls - instead of two knobs, one of which balances the front left or right, the joystick gives you more precision with only one control. Move it to the left, get more sound on the left. Move it up or down, get more sound in front or back. Simple, yet extremely precise.

Most receivers have bass and treble controls, though possibly not of the same quality as the Baxandall controls Fisher employs. But in addition, the Fisher 414, 404X, 514 and 504X incorporate a midrange control that permits modification of the midrange frequencies as well. Another example of Fisher's flexibility.

The FM tuner section.

All the new Fisher receivers achieve the outstanding sensitivity figure of 1.8 microvolts, which permits them to bring in extremely weak signals without distortion. But they also are extremely selective (alternate channel selectivity, 60 dB), which allows them to pick up a weak signal without distortion from a nearby station that happens to be stronger.

Among the reasons for the superiority of the Fisher FM section are dual-gate MOSFETS for high amplification with low noise, a ladder-type ceramic filter that passes the relevant information and rejects interference, and a multiple decoder based on the phase-locked-loop (PLL) principle that's largely responsible for the 38 dBA channel separation.

The AM section.

Fisher has never neglected the importance of AM reception. It has been our goal to insure that the '14' series is capable of reproducing an AM signal as cleanly as an FM mono signal. The AM input stage provides high sensitivity without overload susceptibility. The IF section includes High-Q filters that make the Fisher AM section extremely selective.

4-channel. All the ways.

4-channel is here to stay. But in what form? The answer is, to an owner of a new Fisher receiver, that it doesn't matter. The Fisher '14' series is equipped to handle everything. Discrete from tape. Any matrix system, SQ or otherwise. And the '14' receivers have a CD-4 decoder built in. So you're completely covered no matter what kind of program material you like, no matter which format you prefer.

The CD-4 disc demodulator.
The CD-4 disc is generally

Studio-Standard receivers are available only at Fisher Studio-Standard dealers. Prices slightly higher in the Far West and Southwest.
These new 4-channel receivers leave no room for improvement.
Picking cartridges feature low frequency tracking and high frequency tracing ability*

You are looking at a model of a discrete groove, magnified 3,000 times (figure A). You can see it is made up of complex groove undulations. This makes the demands on the cartridge and its stylus much greater than ever before. The left side of the groove possesses all of the information recorded on the left side of the room, and the right side likewise. The stereo signals for the front speakers are represented by the broad sweeps (figure B), and the special discrete high frequency tone carrier is represented by the wiggles on the same groove walls (figure C). This high frequency carrier centered at 30,000 Hz, demands a superior shaped stylus. The stylus must have low frequency tracking ability and high frequency tracing ability. In other words, it must possess traceAbility, Picking's trademarked term for the ability to trace this difficult groove. The secret lies in the stylus assembly (and shape of the tip) which we call our Quadrahedral,™ another Picking exclusive which makes it possible for the stylus to trace both the stereo and discrete signals in the groove.

So, the quadrahedral™ stylus picks up all 4 signals, which the computerized demodulator sorts for the amplifier, which, in turn, transmits the sound into the proper speaker.

Four-channel discrete sound becomes a fabulous reality in the home, and Picking's UV-15 cartridges make it possible. For further information write to Picking & Co., Inc., Dept. G Sunnyside Blvd., Plainview, New York 11803

*CIRCLE 61 ON READER-SERVICE CARD

for those who can hear the difference™

TM-PICKERING TRADEMARK

HIGH FIDELITY MAGAZINE
From here
to hear

With Superex Stereophones, you've got the best seat in Philharmonic Hall. You're in the control room at every recording session. And you can change seats simply by changing the volume.

Transport yourself to the center of the brass section, or see what it feels like to sit under the cymbals.

The Superex PEP 79 will carry you there. According to Stereo Review, "...though one of the lowest-price electrostatic headphones we know of, sounds about as good as the best and most expensive ones we've tested thus far — and that is no small achievement." Write for complete report.

You'll have a pair of Superex Stereophones with a 10-22,000 Hz. frequency response, a handsome console that works off any amplifier, and a one year guarantee.

Superex Stereophones.
Feel what you hear.

For Free Literature Write:
Superex Electronics Corp., Dept. FT, 151 Ludlow St., Yonkers, N.Y. 10705.

CIRCLE 53 ON READER-SERVICE CARD

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ADVERTISING
We give you the softest soft to the loudest loud. Choose any model. You won't get 'clipped.'

Today's best recordings can reproduce music's full dynamic range, from the softest soft to the loudest loud. Most of today's popular low and moderate efficiency speaker systems can't. But BIC VENTURI™ speakers do.

A speaker's dynamic range depends mainly on its efficiency and power handling capacity. Low-efficiency speakers can't get started without a good deal of input power. And, they tend to get stifled when driven beyond their capability.

BIC VENTURI speakers are efficient! They need as little as one fifth the amplifier power of most air suspension systems for the same sound output. So, you can listen louder without pushing your amplifier to the point where it starts clipping the tops and bottoms of musical peaks.

Today's popular, low-efficiency speakers require about a 50-watt per channel amplifier to deliver lifelike sound levels. Even our Formula 2 will deliver that same sound level with only 25 watts of amplifier power; the Formula 4 with 20 watts and our Formula 6 with only 9 watts! With BIC VENTURI, your amplifier can loaf along with plenty of reserve "headroom" to reproduce musical peaks cleanly, effortlessly. It's as if your present amplifier suddenly became two to five times as powerful. BIC VENTURI can handle lots of power, too. A typical, low-efficiency system is rated for a maximum safe power input of about 50 watts. Feed it more power and you're likely to push it into distortion, or even self-destruction!

With a BIC VENTURI you can turn up the power, without distortion or speaker damage. Even our compact Formula 2 can safely handle 75 watts per channel. With that much power feeding it, it will deliver 210% more sound output than a low-efficiency system will at its power limit. Drive our super efficient Formula 6 at its maximum, and it will deliver nearly 1300% more sound power!

That's the loud half of the story. With soft music (or when you turn down the volume) you want to hear it soft. With most speakers, turn down the volume slowly and you reach a point where the sound suddenly fades out because the speakers aren't linear anymore. But BIC VENTURI's are. The sound goes smoothly softer, without any sudden fadeout, retaining all the subtle nuances that add to the character of the music.

But, even though BIC VENTURI speakers remain linear, there is a point where your ears do not. At lower sound levels, your ears lose their bass and treble sensitivity. So, our DYNAMIC TONAL BALANCE COMPENSATION™ circuit (pat. pending) takes over. As the volume goes down it adjusts frequency response, automatically to compensate for the ear's deficiencies. The result: aurally "flat" response, always!

Our Formula 2 is the most efficient of its size. The Formula 4 offers even greater efficiency and power handling. And the most efficient is the Formula 6. Hear them at your dealer. B·I·C INTERNATIONAL, Westbury, N.Y.11590. Div. of Avnet, Inc. Canada: C.W. Pointon, Ltd., Ont.
Introducing our new speakers.
The best place to start listening to them is right here.

We think you’ll find it easier to judge Technics speakers when you know how they’re designed. How they perform. And the best way to listen to them. Technics speakers are designed to be neutral. Designed to reproduce sound precisely, accurately, impartially. Without emphasizing one range of frequencies at the expense of another. Because tone shading is better left to the controls on your amp or receiver.

The performance you can expect from Technics speakers is indicated by their impressive roster of specifications. Which we’ve stated in meaningful terms in the chart.

Still, we know you don’t buy specs. You buy sound. And that’s something people measure better than machines. So, when you make your listening test, be objective:

1. Use components that are similar to your own. 2. Be alert for acoustic differences between the demo room and your listening room. 3. Compensate for unequal speaker efficiencies. 4. Listen to a wide variety of music — like jazz, classical, vocal, rock…everything. So you can hear how the speaker handles the entire frequency range. 5. Evaluate these sonic characteristics: pitch, dynamics, depth, directionality, ambiance and timbre. 6. Concentrate on one instrument. You should be able to follow it even through complex passages. And its reproduction should compare to its live sound. 7. Check the dispersion. Listen for highs as you walk a 180° arc in front of the speaker. They should be sharp and clean in at least 120°.

We want you to give Technics speakers this demanding test because we’re confident that they will stand up to other speakers. Even ones with bigger reputations.

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

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

Technics
by Panasonic

CIRCLE 55 ON READER-SERVICE CARD
A new phrase is entering the language. Because a new name has appeared on the audio horizon. British Industries Co., the company that has brought you Garrard changers, BIC VENTURI™ speakers, and other top-of-the-line components, has changed its name to B·I·C INTERNATIONAL™ (Pronounce it “bee-eye-see” please, not “bic”).

It’s a name that stands for change. Innovation. More sound for your audio dollar. More satisfaction for your audio soul. “It’s a B·I·C” is going to stand for some fundamentally new concepts in component technology. We’ll be telling you about one of them very, very soon.
The "Jalousie" Sweepstakes

In the February 1974 issue, the music editor promised to send his review copy of the record "Jalousie" to "the reader who—in twenty-five words or less—gives me the best reason why he wants it." Here is a sampling of the response:

I love the music of both Stéphane Grappelli and Yehudi Menuhin. Please send me their recording to prove what I know—you are wrong.

Stephen C. Adamson Stoughton, Mass.

I can do no better than quote these eighteen words (how's that for conciseness?) by a rather good music critic named George Bernard Shaw. "Don't do onto others what you'd have them do unto you: their tastes may not be the same."

Marvin Z. Goldstein Brooklyn, N.Y.

I'm taking your challenge, as I could use a free record: "We don't go to your kind of party."

David Rosenstein Martinez, Calif.

Maybe I can play "Jalousie" to get back at the barmaid next door. She fights with the men she brings home—at 3:00 a.m.

Jim Blauret Riverside, Calif.

I heard this album months ago on the radio and wanted to get it since, but was too lazy to go out and buy it. (Twenty-five words) So I will gladly take it off his hands. Besides, Ken and I have one thing in common if not our tastes in music—our initials.

Kenneth Fields Teaneck, N.J.

I am a Menuhin collector. I believe your review and don't want to pay for this record. My collection needs it. You don't want it.

George Barbas Brooklyn, N.Y.

1. I am very much interested in jazz violin and would like to add this album to my collection.
2. It would be neat to get an album this way.

John Roska Northfield, Minn.

Mr. Furie replies: First, thanks to all who wrote; it's good to know there's somebody out there. Second, contrary to my reply to many of the readers who wrote in, there will be one record given away, not two. The extra copy was ripped off—a sure way of getting it, I guess, than entering some cockamamie contest.

More power to Mr. Adamson and the others who know that I'm "wrong"; you'll find the record at your local dealer's. (For shame, Mr. Fields: same initials or no, do you expect me to encourage your laziness?) I sympathize with Mr. Barbas, who tried to tip the judging by adding a little poem. He has a good reason for wanting the record tree—but that's a separate category. Mr. Blauret obviously needs help of some sort, but I don't think "Jalousie" will do the trick. (I do, however, appreciate his paper-conservation effort: The reverse side of his note contains the much juicier working draft of his submission.)

Here then is the winner:

I am a jazz and blues student violinist who would like to have the record in order to learn from the four original Grappelli cuts.

J. Honeycutt Dixon, Calif.

So the record goes to a worthy educational project. And besides, as Mr. Honeycutt adds:

My recording of Grappelli with the blues violinist Stuff Smith on an out-of-print Everest album looks sorta lonesome sitting up on the shelf all by itself. Since blues violinists saw on the dissonant side of the economic strings, your sending the album would be charitable manna from heaven.

We hope to have some brief comments from Mr. Honeycutt about the record next month.

Consumer Retorts

When Consumer Reports gets into testing $200-$300 speakers and uses the same limited testing methods it has applied to lower ranges in the past I, as a high fidelity enthusiast, must protest. It is not the results of the tests as such that I disagree with as much as the manner: the speakers were tested on only one aspect of their ability to reproduce sound accurately—their average omnidirectional response. Further, even these response tests are limited to the frequencies between 110 and 14,000 Hz. According to the tone of CR's February article, such matters as low-bass capability, bass distortion, treble dispersion, and so on are of concern only to stereo snobs who probably can't distinguish these differences anyway. And there are inconsistencies within the article itself. For example, the writer claims that speaker beaming is relatively academic since most listeners will be positioned in front of the speakers anyway, but the test results are grounded in omnidirectional response. And a difference of up to 8 per cent in "accuracy ratings" is said to be undetectable to the ear, yet it is admitted that all of the speakers "sound" different.

There is no public should be expected to accept that a JBL-100, known for its bright midrange, will sound more accurate to all listeners than a Rectilinear III; that an EPL-100, selling for $94, really is better over-all than an ESS/Heil AMT-1: or that paying more than $100 per speaker is foolhardy? Perhaps the danger of CR's concept is in the reduction of all good things to the lowest common denominator.

John J. Puccio Concord, Calif.

Great Gould?

Here's hoping you didn't pay a lot of money for Glenn Gould's pseudo-intellectual "interview" "[Glenn Gould Interviews Glenn Gould About Glenn Gould." February [1974]. We allow Mr. Gould is the world's greatest transcriber of Wagner for piano, but he evidently does not know that quoting Marshall McLuhan and using gay little French phrases like "entre nous" are out. A quote on the media from Dick Cavett and a reference to Jacques Cousteau would show a more contemporary frame of reference.

As is, Mr. Gould, you just aren't campy any more.

Art M. Faner Salem, Ore.

I commend you! "Glenn Gould Interviews Glenn Gould" was the most original and the most outrageous piece of narcissism it has been my droll pleasure to read in ages.

Kathleen G. McCloskey Washington, D.C.

Cebotari

Kenneth Furie's review of the new Maria Cebotari album (BASF KBF 21483) in the December issue represents an extreme reaction to the uncritical adulation enjoyed by this soprano during her lifetime. Largely because of her sensational marriages, her many films, and her tragic death, Cebotari was surrounded by an exaggerated artistic legend that today is only intermittently supported by the recordings. She was not, however, nearly so bad as Mr. Furie would have us believe.

As a singer, Cebotari was uncommonly sensitive to the printed text, and her voice, while assuredly not the world's loveliest, was always sufficiently functional to carry the statement of her dramatic purpose. Moreover she never, even made a dull recording. In this regard, I
Milestones in Stereo Superiority

The Heathkit AR-15

The Heathkit AR-1500

The Heathkit AR-1500A

1967

1971

1974
Audio connoisseurs demanding the best there is, found it in the AR-15 back in the late 60's. Then came the AR-1500...a quantum jump forward in this already superlative design. Now, in the AR-1500A, Heath audio engineers have done it again, with design improvements that reconfirm this famed receiver's place in the field of audio excellence. And while they were at it, they made the AR-1500A an even easier kit to build.

Design improvements include a Phase Lock Loop (PLL) multiplex demodulator with only one simple adjustment...your assurance of maximum separation, drift-free performance and long-term stability. The AM section also received attention, with a simplification of the AGC circuit resulting in significant improvements in AM performance. Improved output protection has been added for better drive capability over today's wider range of speaker impedances.

In redesigning the AR-1500A, special care was given to making the kit even easier to build than before. A separate check-out meter is now provided, which the kitbuilder assembles first, giving the novice confidence in his assembly skills. The meter is then used to check out each step as assembly progresses. Factory-installed cable connectors are another new kitbuilding aid.

The precedent-setting performance specifications of the AR-1500 have of course, been retained. Conservatively rated, the AR-1500A puts out 180 watts*, 90 per channel, into 8 ohms, with both channels driven, with less than 0.25% harmonic distortion. Two computer-designed five-pole LC filters and the 4-gang, front end combine for an FM selectivity better than 90 dB with 1.8 µV sensitivity. And here are some things the specs won't show you. There are outputs for two separate speaker systems, two sets of headphones, preamp output, and monitoring of FM with an oscilloscope such as the Heathkit Audio-Scope. Standard inputs — all with individual level controls. Electronically monitored amplifier overload circuitry. There are even two dual-gate MOSFETs, one J-FET and a 12-pole LC filter in the AM section for super sound there.

If you still need convincing, check the specifications below. Better yet, see and hear the new AR-1500A at your nearest Heathkit Electronic Center...or send for your free Heathkit catalog.

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

**AR-1500A SPECIFICATIONS — TUNER — FM SECTION (Monophonic):**
- Sensitivity: 1.8 µV.
- 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.
- Intermodulation Distortion: 0.1% or less.

**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; 18 kHz and 36 kHz Suppression: 55 dB or greater. SCA Suppression: 55 dB.
- AM SECTION: Sensitivity: 50 µV with external input; 300 µV per meter with radiated input. Selectivity: 20 dB at 10 kHz; 60 dB at 20 kHz. Image Rejection: 70 dB at 600 kHz; 50 dB at 1400 kHz.
- IF Rejection: 70 dB at 1000 kHz.
- AMPLIFIER — Dynamic Power Output per Channel (Music Power Rating): 90 watts (8 ohm load)*; 120 watts (4 ohm load); 50 watts (16 ohm load). Continuous Power Output per Channel: 60 watts (8 ohm load); 100 watts (4 ohm load); 40 watts (16 ohm load). Power Bandwidth for Constant 0.1% Total Harmonic Distortion: Less than 8 Hz to greater than 30 kHz.
- Frequency Response (1 watt level): 
- Intermodulation Distortion: Less than 0.25% from 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. Hum & Noise: Phono (10 millivolt reference), — 63 dB. Tape and Aux (0.25 volt reference), — 75 dB.
- Volume control in minimum position, — 90 dB referred to rated output. Channel Separation: Phono, 55 dB; Tape and Aux, 55 dB or greater. Output Impedance (each channel): 4 ohm through 16 ohms.
- Dimensions: Overall — 18 1/4" W x 5 1/4" H x 13 3/4" D.
- *Rated IHF (Institute of High Fidelity) Standards.

Send for your FREE Heathkit Catalog!
was particularly astounded to observe Mr. Furie characterizing this soprano as a colorless soubrette, since the very first selection in the BASF album under consideration is a spirited “Venite, inginocchiatieli!” done with a touch of gammerie that beautifully conveys the doilery of this scene. What a joy it is to hear Cebotari’s full-scale, expressive portrayal instead of the typical mincing, simpering Susanna!

I would urge interested parties to investigate these recordings for themselves before accepting Mr. Furie’s opinions on this artist. In addition to the new BASF release, one can obtain further broadcast performances on two imported Heliodor discs, 88016 and 88030, while many of the classic HMV studio recordings have been preserved on DaCapo C 147 29118/9. This legacy confirms that Cebotari was actually an extremely rare type of singer—the dramatic coloratura, a vocal category represented today only by Maria Callas and the sadly neglected Leyla Gencer. From the DaCapo album in particular, a single exposure to Cebotari’s unforgettable Frau Fluth from Die lustige Weber von Windsor will be sufficient to forever put to rest Mr. Furie’s stricture that her recordings are “lifeless.”

James Turner
Collinsville, Ill.

The Recorded Operatic Repertory

I write in despair over the cowardice and lack of imagination of the recording industry when it comes to opera. When London released its Les Huguenots in the fall of 1970, I had hoped that the golden age of opera recording was at hand. I have since changed my mind, and I fear that Angel’s Guillaume Tell is only a fluke and not a true indication of the industry’s way of thinking. The only people with any signs of artistic conscience are the record pirates.

Why are there so many Ring cycles when there is no recording of Le Prophète? Why must every company do yet another version of La Bohème and Turandot? Consider RCA doing another Bohème, with Caballé and Domingo, while it sees fit to record only excerpts from La Juive with Tucker and Arroyo. Caballé is denied a chance to record the title roles in La Donna del Lago, Caterina Cornaro, and La Straniera. Domingo records everything in sight except Vasco da Gama, and Verrett, instead of recording the title role of L’Africaine, is going to do Carmen. Sutherland, Caballé, Pavarotti, and Ghiaurov waste their time learning their roles in Turandot just to record them, when they could just as easily have learned and recorded Roberto le Diable, which is a hundred times more fascinating than anything Puccini ever wrote. It looks like I will have to save my money for pirated discs.

Fred Posner
Bronx, N.Y.

Every operophile can put together a long list of unrecorded operas worth attention, but “despair” seems unwarranted; at no time in history have record companies been so adventurous in expanding the available repertory. There will always be new versions of the warhorses, because there will always be a market, for example, for an interestingly cast new Bohème. Yes, RCA has recorded a new Bohème (note that none of the six principal singers or the conductor have previously recorded the opera), but what about its complete Vespri siciliani and forthcoming Simon Boccanegra? Philips has given us not only a fifth Ring cycle, but the splendid premiere recordings of Les Troyens and Benvenuto Cellini and a continuing early-Verdi series, among others. In addition to Guillaume Tell, Angel has recently given us Giovanna d’Arco, two Delius operas, several Russian operas via Melodiya, and the Melosfonie reviewed this month. And this year would be memorable if only for DG’s monumental Pales-

tina premiere.

We share Mr. Posner’s hope that the major Verdi operas will reach discs—and in truly first-rate performances. But let’s be realistic about both the recording cost (enormous) and potential market (limited) of a Verdi cycle. How many record buyers (or, for that matter, musicians) consider Robert le Diable “a hundred times more fascinating than anything Puccini ever wrote”? (Lit, by the way, is in Ca-

balle’s regular repertory, and Turandot was hardly much of a challenge for Ghiaurov.)

Before we start awarding the pirates prizes for “artistic conscience,” let’s bear in mind that they normally don’t pay a cent for the material

Correction

The photo caption on page 72 of the “Movie Musicals in the Thirties” article in the April HF was a typo-

graphical disaster. Judy Garland and Buddy Ebsen appeared together in Broadway Melody of 1938, not 1936, and Miss MacDonald, of course, spells her first name with one “n”—Jeanette, not Jeanette.
Are we really number four?

A recent survey by a leading audio magazine found Sherwood in fourth place among all stereo receivers, in terms of the "brand bought most last year."

This report both pleased and confused us. Since we barely showed up in previous annual tallies, the evidence of sudden fame and popularity was certainly welcome.

Unfortunately, it didn't make any statistical sense. After all, we're the people who make this gear, and we ought to know how many units we put together in a year's time, and we promise you that the total doesn't even approach what the giants are doing.

Maybe there was another message in that score.

So we reviewed the survey a little more closely, and remembered that it was a subscriber survey, meaning that it automatically did not include the large general mass market for high fidelity equipment, where most of the big volume is.

In other words, the survey was biased, in favor of the sophisticated, expert, deeply involved audio enthusiast: the man who takes his listening seriously.

Among this specialized group, Sherwood registered a fourth place position.

Which would make sense statistically, since the numbers are smaller.

And on a performance-per-dollar basis as well, since the standards are higher.

---

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High Fidelity Magazine

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Stereo Review Magazine
the DQ-10 PHASED ARRAY

Speaking of records

How About A Truth-In-Recordings Movement?

by André Watts
(as told to Jack Hiemenz)

This may sound overly idealistic, but I can’t help wishing that all recordings were live performances. After all, why do people go to live concerts? Isn’t there something special about them, wrong notes and all? And doesn’t that special kind of excitement—that sense of a public event—come across on recordings made at live concerts? It certainly does on the ones I have: on Josef Hofmann’s famous fiftieth-anniversary album, in that concert where he plays the Rubinstein D minor Concerto with Fritz Reiner conducting, and on that marvelous pirate recording of Michelangeli doing the Grieg concerto with the Madrid Orchestra under Frübeck de Burgos. Michelangeli makes it a new piece. When he comes to that first cadenza, there’s a huge excitement to it all—largely due, I feel, to the fact that it’s an actual live performance, that you can sense what the audience is feeling at that moment.

Sure, there are bloopers, but they add to the pleasure—not in the righteous sense of “ha-ha, he missed it!” but by adding a human touch to all that ironclad music-making. It’s an aspect I’d like to hear more of on commercial recordings. If this is totally unfeasible, then at least I’d like to know that there was no splicing within movements. If you are taping two performances of, say, the Chopin “funeral march” Sonata, one in New York and one in Chicago, and if you feel that your first movement really did go better in Chicago, then certainly it would be okay to combine it with the rest of the New York performance—especially in the case of this sonata, where the first movement is such a thing in and of itself. But then the album should clearly indicate that you’ve done this.

That way, you could avoid a number of the problems inherent in making a studio recording. One’s attitude in entering the recording studio is very different from one’s attitude in appearing in a public concert. There’s a “musical” tension one feels in both cases, and that’s a good thing. But in the studio, there’s a further kind of tension that I feel is detrimental. Even though you can do retakes and make splices in the studio, the pressure not to play the wrong notes is much stronger there.

For example, I recently recorded the Tchaikovsky concerto with Bernstein and the New York Philharmonic. First, though, we played it in concert. The performance went pretty well—with not too many wrong notes, with the octaves pretty clean—and there was always that comforting feeling that even if I did muff something, it would all go by so fast the audience would scarcely notice it. But when we went into the studio, I didn’t have that defense. Instead, I was feeling, “Jeez, if I blow this octave passage, we’ve got to do it again. Then we’ll run into overtime with the orchestra.”
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There’s the whole intimidating idea of having all those guys around you while you have to stop and ask for a retake. It can be pretty terrible, especially if you have to start again and again. It can get you very upright. How is somebody supposed to play expansive music when he realizes he has a time limit? How can he comfortably sit there and take his time making beautiful long phrases? Under those conditions, the score is bound to come out a little differently from what one would like.

Which brings me back to that Hofmann recording of the Rubinstein Fourth Concerto. I never heard Hofmann in person, of course; but I have heard all the stories about him—that he was willful, that if he appeared in concert and didn’t like what was going on he might slam his fist down in annoyance. Anyway, in this performance, one senses that reckless quality: He’s going for broke. It’s that quality that gets so easily lost in today’s recordings. The whole notion of going for broke implies finality: one doesn’t do it over and over. So when you’re doing a recording, you might go all out, knowing that you can do it again—but it’s not quite the same kind of feeling, because you really don’t want to do it again. You’d rather avoid that, and so you take a certain amount of caution.

In addition to live recordings, I have an extensive collection of early piano or piano roll reissue albums. When I’ve been working very hard and want to relax, I’ll put on one of these. Sometimes I do it for nostalgic enjoyment, sometimes to revel in all that virtuosity, sometimes just to be tickled by the eccentricities and silliness one sometimes hears.

I’m very fond of Josef Lhevinne and what one hears on the RCA reissue of his old discs. Of course, every time you talk about Josef Lhevinne records you come around to his performance of the Schulz-Evler transcription of The Blue Danube. It’s so clean, so scintillating, such an elegant piece of schmalz. He plays so many notes—especially those octaves near the end. But I’ll tell you something amusing. If you listen carefully at that point, you’ll notice that he indulges in a little “thinning out”—i.e., he omits that first octave in order to work up that velocity! I also love the way he gallops through the Schumann Toccata and the Chopin B flat minor Prelude. The first time I heard him doing that prelude, I nearly rolled around laughing. It was like seeing a film of some very involved acrobatics, only with the film speeded up! I don’t find much in Lhevinne by way of profound musicianship, but for sheer technique he’s stunning.

One record that surprised me was that of Harold Bauer playing the Saint-Saëns G minor Concerto. It began like any other, with those two solo pages for the piano, but when it came time for the or-

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If you’re a serious listener, unfamiliar with ADC speakers, we urge you to talk to people familiar with our products. They know that, among the relatively few outstanding speaker systems on the market, ADC’s line ranks among the best. And, now, with the introduction of the Pritchard System, ADC’s probably number one!

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The effective tip mass is .22mg. Extensive testing has shown that the effective tip mass (ETM) of a cartridge is the factor most directly related to record and stylus wear. It has also been demonstrated that record wear due to high ETM is most severe in the high frequencies; obviously then, a high ETM is a substantial problem with CD-4 high frequency modulations. The integrated manufacturing method used to produce the MMC 6000 contributes to the extremely low ETM of .22mg, and a tip resonance point of over 50,000 Hz.

It tracks at 1 gram. The MMC 6000's low vertical tracking force (VTF), greatly reduced ETM, and compliance rating of 30 x 10⁻⁵, create an optimum relationship between those factors of a cartridge which have the greatest effect on performance. VTF, effective tip mass, and compliance should never be evaluated singly; the most critical task within cartridge design is establishing their ideal interrelationship. Therefore you should consider the 1 gram tracking force of the MMC 6000 as just one result of a superior cartridge design. While VTF is often a reliable parameter of overall quality, its relationship to record wear is secondary when compared to the ETM. It should be understood that at high frequency modulation the forces applied to the groove walls are several hundred times as great as the VTF. And to a large extent then, these forces determine record wear and are directly related to effective tip mass.

It features a Pramanik stylus. The MMC 6000 utilizes a multi-radial diamond developed by cartridge engineer, S. K. Pramanik of Bang & Olufsen. The unique shape of the diamond was developed to obtain maximum contact with the groove walls along its vertical axis and minimum contact along its horizontal axis. The increased contact along the vertical axis reduces record and stylus wear by significantly lowering the amount of force applied per unit of surface. The minimum contact along the horizontal axis guarantees the extremely accurate tracing of the CD-4 high frequency modulations between 20,000 and 45,000 Hz. As opposed to normal diamond styli, only the very tip of the Pramanik diamond is mounted on the cantilever. This procedure and the beryllium cantilever, stiffer and lighter than commonly used aluminum, further reduces the ETM of the MMC 6000.

It meets the Class A criteria.

The RCA/ JVC system for CD-4 cartridges

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Discrete 4-channel sound became a reality through the work of the RCA/ JVC joint development team. Accordingly, RCA/ JVC engineers established criteria by which the performance and 4-channel capabilities of cartridges could be evaluated. Their rating system includes four classes: A, B, C, and D. Class A being the highest and D class considered as unacceptable. The class A rating is given to only those cartridges with a frequency response varying no more than ±10dB between 20,000 and 40,000 Hz, with channel separation better than 14dB at 30,000 Hz, and more than 1mV output. Every MMC 6000 cartridge meets or exceeds these specifications. As proof of each unit's level of performance, the MMC 6000 comes with its own calibration card and frequency response curve. The calibration card states the output voltage, channel separation, and the balance between channels. The frequency response curve is produced for each channel on a Bruel and Kjaer level recorder and shows the performance levels from 20 to 45,000 Hz.

Bang & Olufsen

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June 1974
doesn’t hear it played today. If I had the time, I’d learn some of the pieces (they aren’t as easy as you might think) and make a recording of them.

I also enjoy the Hofmann album in that series. One of the pieces on it is something I’ve done recently—Beethoven’s Op. 129 Rondo. Rage Over a Lost Penny. Once again, I am impressed by the speed at which Hofmann takes it.

Also, I appreciate the special character he gives to it: He really manages to suggest some guy flipping out while looking around for this coin.

Hofmann also plays The Ruins of Athens, and it’s interesting to compare his interpretation with Rachmaninoff’s. Hofmann plays it much faster, much more clipped, whereas Rachmaninoff makes it something rather sinister. There’s the well-known Rachmaninoff bass with its menacing quality, and he ends the piece on a diminuendo so that it dies away.

There was an individual stamp to everything that Rachmaninoff did, but one performance I especially cherish is his Liszt Rhapsody No. 2, where he put in his own cadenza. Suddenly, in the middle of Liszt, you have all this Rachmaninoff! Can you imagine what would happen today if some pianist dared to insert his own cadenzas into Liszt? Look at all the hue and cry that arose when Glenn Gould did it in Beethoven!

As for less outlandish musicians, I have a fair number of albums by Solomon. Years back, when I met Piatigorsky, he gave me a set of the Beethoven cello/piano sonatas with himself and Solomon, so I have a personal fondness for that set. The thing about Solomon, though, was that his was—how shall I say it—such an ethical kind of music-making. Occasionally, it would seem a little dry, but you always felt that you understood why he was following a particular course. You never lost track of his logic.

When somebody dies or retires, criticism tends to ease up a little. You don’t find people tearing apart William Kapell records or Dinu Lipatti records. People go out of their way, in fact, not to gripe about Lipatti’s performance of the Bach First Partita, which happens to be one of the most heavily pedaled jobs you’ll ever hear. It’s beautiful and I like it, but I think it’s wrong nonetheless. On the other hand, there’s nothing wrong in the way he did Chopin. The waltzes have just the right amount of salon character, just the right degree of elegance. Each of them was treated as an important musical construction—that was Lipatti’s way in everything. And I’ve never heard anything so light or fine as the way he handled the scherzo in the Chopin Third Sonata. The only performance that comes close is Kapell’s.

As you see, I’m a piano man even in my off-hours. The only opera I know really well is Fidelio. As a kid I had the Furtwängler recording, and I used to take it with me to Europe when I toured. My mother, who accompanied me, wasn’t so rabid. I remember that in Israel, when we were staying in adjoining rooms, I’d be playing it over and over before every concert, and it would drive my mother up the wall. The Leonore on that set was Martha Mödl, who doesn’t seem to rate very highly among opera cognoscenti. But I was crazy about her singing. I would put on the “O namenlose Freude” duet between her and Windgassen, and it would prime me for the concert. With all that heroism echoing in my head, I was ready to face anything!
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I own a Hitachi stereo cassette deck Model TRQ-2000D with Dolby. When I first purchased it the record/play head was bad and had to be replaced (under warranty). Hitachi claims response with normal tape from 20 Hz to 15 kHz. I tried Scotch High Energy and got terrible results. Then I switched to TDK Extra Dynamic, but it still lacked something. Finally I switched to Maxell UD and got the best results so far, but even this tape lacks some highs. I am recording well below saturation, so that's not the problem; my amplifier was just checked out and is fine, as are the speakers. Is it possible that the new head requires a change in bias current? What tape is this deck supposed to be set up for? How could I adjust it to get the most out of UD? — Dominick Melilli, Flushing, N.Y.

It sounds to us as though you're making an astute guess about the deck. Switching heads can indeed require a bias adjustment, if performance is to remain optimum for a given tape. We used TDK SD in testing the Hitachi TRQ-2000D and got good results. Increase the bias current (either by adjusting the unit or by switching to a head with lower impedance), and you should expect a loss in high-frequency response. Now switch to a "hotter" tape, and you may get back some of that loss. So if your unit now is overbiased even for Maxell UD, the results could sound dull with that tape and even duller with the other two, whose high ends are not as "hot" as that of UD. We would have expected the technician who installed the head to have checked this out before returning the unit. We also would have expected him to check another factor that could be altered by a head change and might produce a somewhat similar dullness of sound: Dolby tracking. Under any circumstances the unit shouldn't sound "terrible" with Scotch HE, and we suggest you have it checked again.

I am considering purchase of the Pioneer SX-747 receiver or the SX-949, which are "complete" quadriphonic units in that they have built-in RM, SQ, and CD-4 decoder/demodulators. But they don't have "logic." How important is this feature? — Henry Florentini, Chicago, Ill.

It depends on what sort of logic you're comparing them to. The simplest (front-back) adds little to the sense of separation; full logic adds more. But any of these so-called gain-racing logic circuits—even if they include what is known as "wave matching"—can also produce extraneous and sometimes disturbing shifts in apparent placements from moment to moment. The effect, known as "pumping" or "breathing," depends in large measure on the nature of the recording itself; it's impossible to say how often you might encounter it or how disturbing you might find it. The newest variants of the logic idea—for example, Lafayette's Varblend logic decoder and Sansui's vario-matrix equipment—seek (successfully, on the basis of what we've heard so far) to minimize such side effects by avoiding gain-racing as the means of enhancing separation.

An unsigned article on tapeing discs that appeared in a recent magazine says: "Place a record on your turntable—preferably one of the ones you're going to record last, but a typical sample of the volume levels you're likely to encounter—and set your volume levels. Don't use the first disc you intend to record, because immediate re-playing can damage the groove walls. Instead leave an interval of at least 30 minutes before replaying." Now I have about 200 LPs that cannot be replaced and have been in the habit of playing favorite tracks several times over at the same listening. If this writer is correct, I have been making a big mistake. Is he? — A. M. Ficci, Alamosa, Colo.

Yes and no. Tests have shown that wear rates with repeated, immediate replays of the same passage are greater than with "rest periods" of up to 24 hours between replays. These tests don't suggest, however, that a few extra playings within shorter periods will produce an audible increase in wear. And if you're to set levels correctly for a good tape copy—particularly with cassette equipment—in which levels are more critical than with open-reel decks—you may have to play the loudest passages several times. We'd say that you should avoid repeated playings to stay on the safe side but not be unduly concerned about the repetition when occasion demands.

I have just bought my first batch of Maxell cassettes, and I notice that while the outer box is nicely made (the joint at the hinge fits exceptionally well, for example) it is missing one feature that most other standard cassette boxes seem to have—the little hole at each end of the dark (as opposed to clear) portion. What is that hole for, and does its omission matter? — F. E. Greer, Paris, Texas.

You're obviously talking about the Philips style of outer box, and in our opinion you're better off without those little holes. It seems that they were intended to accept a rod in store display racks to prevent pilferage of prerecorded cassettes. (The grommeted
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*The design, development, and technology behind the BOSE Direct/Reflecting® speakers is presented by Dr. Bose in the article, “Sound Recording and Reproduction,” published in TECHNOLOGY REVIEW (MIT), Vol. 75, No. 7, June '73. Reprints are available from BOSE for fifty cents.
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Illustrated: Model AT14S with Shibata stylus, $75.00, mounted in AT-1099 Tone Arm, $139.95.

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CIRCLE 7 ON READER-SERVICE CARD

Continued from page 22

holes in the "flaps" protruding from the "slipcases" in which Ampex packs its multicolored cassette sets are intended for the same purpose.) Since we've never seen blank cassettes afforded this kind of pilferage protection—and since it would in any case require that the rod penetrate the outer Cellophane wrapping used by Maxell and other brands—the holes serve no purpose we know of for blank tape. And they provide extra chinks through which dust can enter, become embedded in the oxide coating, and hasten head wear.

In examining many recent purchases of classical discs I have become quite disgusted. Issues from RCA, Columbia, London Stereo Treasury, Angel, Nonesuch, and RCA Victrola all have suffered from a similar problem: outer edge warp. These warps extend inward for 1½ to 2 inches. My Dual 1215S tracks them all right, but the situation is nonetheless maddening. What causes the problem, and is any relief in sight?—Peter Bourneuf, Hudson, Mass.

My experience with RCA Dynaflex has been downright traumatic, and I have now firmly decided not to buy any RCA records in the future.—Myron T. Rusnak, Rochester, N.Y.

The Dynaflex disc is dead as far as I'm concerned.—Scott C. Lewis, La Feria, Tex.

It's just a guess, but Mr. Bourneuf's complaint sounds like the kind of warpage that comes from removing the "flash" from the edge of the disc with too little care and while the pressing is still too warm from the press to withstand the pull of the knife. The extra-thin pressings that have become standard on most labels in the last year or two (since Dynaflex was introduced) seem more susceptible to this kind of warping, as one would expect, than their thicker predecessors; and the present shortage of vinyl certainly won't encourage record companies to return to the thicker discs. All, of course, claim that they have licked the problem and outline to us the rules that they have laid down for their press operators to prevent warpage. Yet the warps continue. And of course even when the warp is not severe enough to prevent tracking, it can produce both audible wow and accelerated record wear. One of our reviewers recently noted that some pressings from RCA seemed a little thicker than has been typical in recent months. We hope this is a harbinger of things to come, though greater care in handling warm pressings would seem an even better approach.

If you are testing the new Sony TC-152SD AC/DC cassette recorder [actually reported on in the April issue] be sure not to overlook the effect of its unshielded bias oscillator on nearby FM tuners. With my Scott LT-112B it creates havoc, reducing sensitivity and defeating the muting.—John McGinley, New York, N.Y.

We have used the TC-152 with several FM receivers (though not with your Scott) and experience no interference whatever, even when we do our darnedest to induce it. If the fault does indeed lie with your Sony, it presumably needs servicing. In any event you seem excessively anxious to assume inadequate design in the unit.
Introducing the KLH Model Twenty-Eight:

A logical new approach to ominireflective sound.

The KLH Model Twenty-Eight is, in effect, three complete loudspeaker systems in one. As you can see, it is almost triangular in shape. Each side has its own high frequency driver and woofer.

This geometric array of speakers combined with a versatile “Acoustic Projection” control system accounts for the Twenty-Eight’s unique performance characteristics.

The Twenty-Eight radiates full spectrum sound in three directions, forming a near perfect cylindrical wavefront. This means you can sit anywhere in a room and hear absolutely balanced sound with full dispersion at all frequencies.

And with the Twenty-Eight, you have remarkable control over the sound you hear. By using the “Acoustic Projection” switch, you can actually change your listening vantage point from the equivalent of ten or twelve rows back in the orchestra to front-row-center. There are also two high frequency level switches which allow you to perfectly tailor the Twenty-Eight’s performance to your room’s acoustics.

The Twenty-Eight also has extremely high power handling capability—actually handles up to 400 watts of short duration musical peaks. And yet it can be driven by any 30 watt RMS per channel amplifier.

The mid-range is very smooth and transparent. And because the three woofers in the system are coupled to work as one, the bass response can best be described as uncanny.

Even the beautiful foam grilles are of a special acoustically transparent material that never gets in the way of the sound.

The Model Twenty-Eight is at your KLH dealer now.

Hear it soon.
We think you’ll understand why we put it on a pedestal.

Suggested retail price: $299.95† (including pedestal).
For more information, write to KLH Research & Development Corp., 30 Cross St., Cambridge, Mass. 02139.

†Slightly higher in the South and West.
news and views

RCA to Retackle the Classics

When Kenneth Glancy assumed the presidency of RCA Records, rumor suggested there might be good news in store for the classical Red Seal division. Rumor became fact on April 1 when Thomas Z. Shepard, formerly codirector (with Thomas Frost) of Columbia Masterworks, joined RCA as vice president in charge of Red Seal a&r. Shepard’s arrival at RCA now frees R. Peter Munves to devote all his time to Red Seal merchandising, which he has had to handle along with a&r.

Columbia’s classical division, which continues under Frost’s sole direction, has itself gone through a period of revitalization in recent years. Ironically, it is Columbia that has been stocking RCA’s executive pool; not only Shepard, but Munves too came to RCA from Columbia—and Glancy is a former vice president in charge of Columbia Records a&r.

We caught Shepard, one of the most energetic people in the business, in his Columbia office in the midst of a hectic but exhilarating period in mid-March. He was excited at the prospects of RCA’s strongly renewed commitment to the classical field, relieved that his parting with Columbia was amicable (he was, in fact, frantically scheduling sessions for his last project there as a producer, a recording—complete with dialogue—of Harold Prince’s current revival of Leonard Bernstein’s Candide), and above all glad to be able to talk about news he’d been sitting on for a month.

He confirmed that RCA plans to go back into the classical field very energetically, with a switch from Red Seal’s recent emphasis on repackaging to active new production (“after all, if we don’t make new albums, in twenty years we won’t have anything to repackage!”). He is also eager to take advantage of the greater directional possibilities of RCA’s Quadradisc system for reproducing surround four-channel.

“I feel that RCA is like a great sleeping giant,” he said, obviously relishing the job of shaking it up. “What we’ve got to get back [in the classical recording industry] is the feeling of fun”—the sense he gets, for example, from Nonesuch’s activity. “Almost everyone seems to be constantly looking over his shoulder.” He cited Columbia’s much-honored Boulez/New York Philharmonic surround four-channel recording of the Bartók Concerto for Orchestra, which he produced, as an instance of what can happen when you take a fresh look at a major work—“with a great conductor.”

Unlike Columbia, RCA has always been a prominent opera producer. Shepard relishes that challenge too: “I love opera recordings. One thing Tom Frost and I planned when we took over at Columbia was to do more opera.” He laughed, recalling that didn’t quite work out. But he did produce two operas for Columbia, Ginastera’s Bomarzo and the Boulez recording of Wozzeck, of which he is especially proud. One pet project for RCA is recording opera in surround sound.

He doesn’t expect to have much time for studio work, recognizing that his primary responsibility is administrative. But we weren’t surprised to learn that he expects to produce some original-cast albums (“that’s my fun”), something RCA hasn’t done much of recently. It would be impossible to imagine Shepard not recording shows—a medium he virtually owned at Columbia, having produced such albums as “Company,” “No, No, Nanette!,” “Dames at Sea,” “Irene,” “The Rothschilds,” and “Raisin.”

After the Candide sessions, Shepard planned several days of packing followed by a quick vacation with his wife. “I couldn’t just walk out of here and walk in there. Besides, I need the time off badly.”

An Electronics Line for Teac

Kenasonic Laboratory, Inc., of Japan has selected Teac as its distributor for Acuphase Series audio equipment. Kenasonic, founded two years ago by the same Kasuga brothers who established Trio Electronics (Kenwood in the U.S.), manufactures only high-end components. Teac’s own product line presently is confined to tape equipment.

A Teac spokesman says the first Acuphase models should be available generally this summer. At press time, some showings were under way on the West Coast but final details were still being worked out on the
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No matter which you choose, Sansui makes a speaker to match your taste. And they are all superior in performance, delivering sharp definition, and a smooth, but crystal clear dynamic attack over a wide range.

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national distributor network. Distribution initially will be limited, the company says.

Scheduled for the U.S. market are the P-300, a 300-watt continuous power main stereo amplifier at $750; the C-200 preamplifier at $600; and the T-100 AM/FM tuner at $650—all fair-traded. Each has a generous warranty, covering parts and labor for five years.

Kensonic will be the second Japanese company to plan entry into the luxury end of the U.S. market this year. As reported earlier ("N&V," March 1974), Lux had expected to market its line through Marubeni Corp. but those plans have been shelved temporarily according to latest reports.

Another Approach to a "Supertape"

In our January issue (see "News and Views") we reported on Sony's "Duad ferri-chrome" tape—the first formulation to combine ferric and chrome elements.

Word from Japan now is that two other companies have produced a new ferric-chrome alloy coating, which would allow tape to be significantly thinner than the types currently available.

NHK (Japan's national broadcasting corporation) and Fuji Film, who jointly developed the tape, say its particles are bonded in a polymer plastic base. The tape coating is only 3.3 microns thick, compared to 6 microns for Sony's tape and perhaps about 10 microns for typical open-reel tapes.

An ultra-thin high-performance tape obviously holds great promise, but even the companies admit further development is needed before the product can be marketed. Key factors will be whether the tape is well matched to bias and equalization circuits currently used in tape equipment or will need special circuitry (as does the Sony tape), and whether the thinness will create problems with tape transports (as most of the early C-120 cassette tapes did).

**equipment in the news**

Heathkit adds low-priced four-channel amp

Heath's new AA-2005 four-channel amplifier lacks the VU meters and some control options of its big brother (the AA-2010), but it is still rated at 0.5 per cent THD for a power bandwidth of 5 to 30,000 Hz and at 15 watts of continuous power per channel. It includes built-in matrix circuitry, which has been optimized for SQ; individual channel and master level controls; a stereo phono input; and four-channel tape, aux, and tuner inputs. The kit utilizes plug-in circuitry and, by Heath's count, should take about eight evenings to complete. The $179.95 price covers metal cabinet and walnut veneer end panels.

Lightweight electret headphone from Technics

The relatively new Technics line is offering its first headphone, the electrostatic Model EAH-80A. This 12.5-oz. headset, which uses electret elements to obviate the conventional DC voltage supply, is said to incorporate a unique distortion-canceling design. Input impedance is rated at 4 to 16 ohms and distortion below 0.8 per cent (500 Hz at 101 dB SPL). The lightweight adapter and the headphone each have a 6½-ft. cord; the headphone's is coiled. Fair trade price is $79.95.
Henry Lewis has the knack of surrounding himself with the best.

Like his New Jersey Symphony, Birgit Nilsson, Marilyn Horne, Lucio Pavarotti, Pioneer.

What with recording sessions and concerts you'd imagine conductor Henry Lewis might want to take a vacation from music. Not so. In between he catches up with his own listening on his Pioneer high fidelity system.

Henry Lewis takes his music seriously. But he also likes to have fun with it. His Pioneer TX-9100 stereo tuner and SA-9100 integrated stereo amplifier enable him to continue his musical adventures at home.

Pioneer is renowned for producing the finest tuners made. The TX-9100 substantiates this with remarkable specifications like 90dE selectivity, 1.5uV FM sensitivity and a 1dB capture ratio. Audic magazine summed it up perfectly with, "You can't buy better audible performance than is achievable with Pioneer's TX-9100 at any price."

Only Pioneer's SA-9100 integrated amplifier could possibly match the performance of this excellent tuner. As High Fidelity magazine put it, "... It's performance is so exceptional, and the so many extras in the way of switching options, and so on, so eminently useful, that we find it the most exciting piece of audio hardware." Small wonder with features like the unique twin stepped tone controls that custom tailor listening to an enormous variety of tonal variations. And a power output of 60 + 60 watts RMS (8 ohms, both channels driven) with an amazingly low 0.1% distortion from 20 Hz to 20,000 Hz.

Pioneer's TX-9100 and SA-9100 assure conductor Henry Lewis the same absolute control of his music at home as he can achieve with his baton on the podium.

TX-9100 - $349.95
SA-9100 - $449.95, including walnut cabinets.
When you've already developed the finest high velocity Stereophone in the world, you've got to come up with a new twist to top it. And that's the HV/1LC. The world's first lightweight, hear-thru, high velocity Stereophone with volume-balance controls on each ear cup. So when you want to hear more of the violins and less of the bassoons, they're right at your fingertips.

But then, the new HV/1LC isn't the world's finest high velocity Stereophone just because it features volume-balance controls. It's a revolutionary new design concept that vents the back sound waves thru the rear of the cup without raising the resonance or inhibiting transient response. So you can hear your favorite music like you've never heard it before and still be able to hear what's going on around you.

And speaking of sound, the HV/1LC is in a class all its own. Why? Because Koss engineers not only created a unique new ceramic magnet, but they also developed a way to decrease the mass of the moving diaphragm assemblies. The result is a fidelity and wide-range frequency response unmatched by any other lightweight, hear-thru Stereophone.

But there's only one way to hear the difference the HV/1LC makes. See your Audio Specialist for a live demonstration. And write for our free full-color catalog, c/o Virginia Lamm. The new HV/1LC in ebony teak and champagne gold with rosewood grained inlays should add a beautiful twist to your favorite music.
Kenwood's first turntables

Two automatic single-play turntables have joined the Kenwood line. The KP-5022, available this summer, is a two-speed (33 and 45 rpm) DC servo direct-drive unit. A vernier control allows a 6 per cent adjustment of nominal speeds. Wow and flutter are stated as less than 0.05 per cent, with rumble and S/N at -58 dB. It costs $299.95. The KP-3022 ($199.95) employs dual synchronous motors for separate turntable and tone-arm drive. Both models use special rubber damping at the tone-arm pivot. The tone arm on each is statically balanced and has an elliptical cross section and an adjustable cartridge shell of die-cast aluminum. Operation modes are play, automatic single play, and repeat play with arm return and shutoff. A hinged dust cover is included.

Scintrex's "experience" in headphone listening

Scintrex has introduced the SX-4 headphone with "experiential sound." This feature is said to give greater spatial sense to music than ordinary stereo by employing a form of phase shift. The listener can switch between the experiential mode (which employs four drivers similar to those on quadriphonic headsets) and stereo (where only two drivers are used). Other features include liquid-filled ear cushions and a 14-ft. coiled cord. Distortion is rated at 0.6 per cent in stereo and 0.6 per cent in the experiential mode, measured at 1 kHz and 110 dB SPL. The SX-4 costs $49.95.

Marantz adds AM/FM tuner

The extensive Marantz component line has added the Model 115B AM/FM tuner, equipped with a rear-panel FM detector output for possible future discrete quadriphonic use. Among its features is a variable muting threshold to assist in selecting weak stations normally rejected by conventional muting circuits. A "hi-blend" switch, stereo indicator light, FM antenna attenuator switch, and both 300- and 75-ohm FM antenna terminals are also included. The tuner costs $279.95; a walnut cabinet (WC-1) or rack adapter (RA-1) are optional.

Versatile quad control-amp/decoder by Sansui

Sansui's new QA-7000 quadrophonic amplifier/decoder also serves as a control center. Four-channel options are circuitry for QS/RM Variomatix "Hall" and "Surround," Phase Matrix (for other matrix formats such as SQ), and "Hall" and "Surround" synthesizer. One tuner, one tape, and two phono inputs are provided for stereo sources, as well as two aux and two tape inputs for four channels. Front and back jacks of the four-channel inputs also can serve as separate stereo inputs. Matrixed signals can be taped directly or decoded first for four-channel recorders. The amplifier section is rated at 20 watts per channel o"continuous power in quad, or 50 watts per channel when strapped for stereo; harmonic distortion is rated at 0.1 per cent for quad, 0.3 per cent for stereo. The unit costs $569.95; a wood case is optional.

Pioneer's top Dolby cassette deck

The latest addition to U.S. Pioneer's cassette deck series is the CT-5151. Along with built-in Dolby noise reduction, this model has separate bias and equalization switches for standard, low-noise, and chromium dioxide tapes. A light-emitting diode indicates levels 4 dB above reference 0 VU. Features include a two-color tape-run light, memory rewind, level limiter, and a "skip" button, which doubles the playback speed for quicker location of a particular selection on the tape. A DIN input/output jack is provided. The price is $269.95.
This year only 1200 perfectionists will satisfy their pursuit for excellence.

The new Ferrograph Super Seven takes its place alongside the finest high fidelity components in the world. Admittedly, it's not for everyone. Just the limited few who are able to recognize and appreciate its unexcelled capability for professional performance in the home.

The Super Seven achieves new heights in innovative tape recording with more than thirty advanced features including:

Exclusive variable speed wind and rewind — 10½-inch reels — 3 speeds: 17/8, 3¾, 7 1/2 ips or 3¾, 7½, 15 ips — Dolby B (on request with either speed configuration) — professional electronic editing — instant slur-free starts in record/playback — bias adjustment on front deck — pushbutton tape/source comparison — bias reading and tape track transfer.

The choice of professional broadcasters and musical perfectionists the world over, Ferrograph Super Seven is not merely the best of its kind — it's the only one of its kind.

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New Super Seven Ferrograph
Total versatility with tape.
More concerned with the price of bacon than the loss of individuality in an acquisitive society, country music thrives on common experiences that express the day-to-day lives of most Americans.

Country-music biographer Robert Shelton quotes this pearl from the lips of old-time country fiddler Clayton "Pappy" McMiche: "I've noticed in my thirty-five years of show business that here's five-hundred pairs of overalls sold to every one tuxedo suit. That's why I stick to swamp opera."

Swamp opera is a good term—one of the best. Of course that's not to deny the beauty or efficacy of the many other names applied to country music: hillbilly, cowboy music, mountain music, bluegrass, backwoods ballads, hoedowns, western, and folk. None of these is entirely accurate, which is why the term "country music" seems to have been settled on by way of compromise. This music is so identified with America that for many millions of people around the world country music is American music—jazz, blues, serious music, and rock notwithstanding.

Today country music is a mammoth industry. Over a thousand radio stations devote their programming to it, and each year more of them join the trend, even in such bastions of Yankee enlightenment as New York. One popular country singer, Tom T. Hall, makes the observation that no radio station adopts a country format out of the blue. "It isn't that the manager wakes up one day and says, 'Nothing else has worked, let's try country.'" he contends. "The Country Music Association does everything with computers and market surveys. I think they know the address, interests, and buying power of every country-music lover in America."

Due to both the promotional efforts of this active trade organization and the appeal of country to a mass American audience, country music has caught on to a phenomenal extent. In many cities,

Continued on page 42

Swamp Opera

by Mike Jahn
Lynn Anderson was raised in California but moved to Nashville during the 1960s. Her success as a performer was capped spectacularly in 1970, when her recording of the song I Never Promised You a Rose Garden earned fourteen gold records and one platinum record internationally, as well as the Grammy for Best Country Vocal Performance. Rose Garden made the number one spot on the country, pop, and easy-listening charts, a rare feat. Suggested is "Rose Garden" (Columbia C 30411).

Current Swamp Opera Trail Blazers

Country music has as many performers as Colonel Saunders has chickens. An attempt to describe all or even a large number of them is impossible. What I have done is select the currently most popular performers along with some who are lesser known but influential. Each is likely to have dozens of albums, country singers being nothing if not prolific. The album suggested in each case is the one I find most representative.

Johnny Cash slipped from the hands of Sun Records' Sam Phillips to Columbia in 1958 and since then has recorded over twenty albums, of which several have become gold. Through all of them he has maintained the same rockabilly simplicity that marked such early hits as I Walk the Line and Ring of Fire. Cash has, according to Columbia, "an incredibly large and diversified audience which includes professionals (on both sides of the law), hippie kids, matrons from Connecticut, and a cross section of Europeans who turned out in such tremendous numbers for one Liverpool concert that all attendance records were broken, including those set by Liverpool's own, the Beatles." Cash's deep baritone and simple, old-style country backup are best heard on "Folsom Prison Blues" (Columbia CS 3639).

Nitty Gritty Dirt Band spent years as a good-time jug band of distinctively collegiate persuasions. Then a few years ago, at a time of roots-finding among rock musicians, it began to get involved with country. The Dirt Band's grand achievement was the three-disc album "Will the Circle Be Unbroken" (United Artists UAS 9801), a bluegrass and old-style country music "supersession" involving many famous Nashville musicians.
George Jones and Tammy Wynette are virtually a conglomerate. Jones, a twenty-year veteran of the country circuit, has recorded over four-hundred songs and eighty-two albums, and claims to have had a record in the top ten of the country charts ever since 1956. He had been voted the number-one male vocalist by Billboard and Cashbox magazines several times when, in 1969, he married Tammy Wynette, then Epic's number-one female country artist. Now they travel to show dates in a bus decked out with all the comforts of home; have a six-piece band, the Jones Boys; and own their own booking agency, music-publishing company, and amphitheater. "The Golden Hits of George Jones" (United Artists 6532); "Tammy Wynette's Greatest Hits" (Epic BN 26489).

Waylon Jennings was born in 1937 in Littlefield, Texas, where at the age of twelve he became a disc jockey. At twenty-one he moved to Lubbock, Texas, and met legendary rock and roll singer Buddy Holly, becoming bassist in Holly's band, the Crickets. Jennings missed the plane that crashed in 1959, taking Holly's life. He formed his own band, the Waylors. Since signing with RCA in 1965, he has recorded over a dozen albums, displaying an increasing tendency to blend country with contemporary folk song. His best is quite good: "Lonesome, On'ry, and Mean" (RCA LSP 4854).

Charley Pride, a solid country singer steeped in the best traditions of the music, was the first black artist to make it as a major country singer. He has recorded seventeen albums, six of them gold, and since his first Grand Ole Opry performance in 1967 has been given nearly every major award in the field. RCA claims that he is the biggest-selling country artist of all. Try "The Best of Charley Pride" (RCA LSP 4223) and "The Best of Charley Pride, Vol. 2" (RCA LSP 4682).

Buck Owens is credited by many with turning Bakersfield into "Nashville West," the second-largest center of country music. A sharecropper's son, he moved to that city in 1951 at the age of twenty, formed a band, and six years later signed with Capitol. Within three years he had his first major hit, Under Your Spell Again, and now Buck Owens and His Buckaroos are one of the most popular and honestly good-natured country acts. "The Best of Buck Owens" (Capitol ST 2105).
Jerry Lee Lewis was a minor figure in country music before he became a major figure in 1950s rock and roll with such tunes as Whole Lotta Shakin' and Great Balls of Fire. There followed a long period of semiretirement, and in 1968 Lewis came back, not surprisingly, as a country singer. He now ranks very high in the field. Recommended: "Jerry Lee Lewis Sings the Country Music Hall of Fame Hits," Vol. 1 (Smash SRS 67117); Vol. 2 (Smash SRS 67118).

Kris Kristofferson is the best of those singer/songwriters who have been described as "progressive Nashville." A former Rhodes Scholar and helicopter pilot, Kristofferson has written some of the best country songs of recent years, blending the traditional sound with lyrical thoughts that ring of country but have a great deal of wit and sophistication. Among them are Me and Bobby McGee; Help Me Make It Through the Night; For the Good Times; and Just the Other Side of Nowhere. Kristofferson lately has turned actor, playing the heavy in the film Pat Garrett and Billy the Kid. Best of his albums is his first, "Kristofferson," re-released as "Me and Bobby McGee" (Monument Z 30817).

Charlie Rich grew up in the same part of the South as Presley, Perkins, and Cash and wound up at Sun Records shortly after they did. Now with Epic, he is beginning to become an important face in country. More blues-oriented than most, Rich possesses an especially expressive voice as displayed on "Behind Closed Doors" (Epic KE 32247).

Porter Wagoner looks like a country preacher and has been a major force in country music for nearly twenty years. While a clerk in a supermarket, Wagoner played guitar during the quiet times and attracted the attention of his boss, who bought a fifteen-minute radio program for him. Before long he was up to his neck in the usual citations, Grammies, and other awards. His Porter Wagoner Show is one of the busiest on the country circuit, and his duets with Dolly Parton are justly famous. Recommended: "The Best of Porter Wagoner" (RCA LSP 3560); "The Best of Porter Wagoner, Vol. 2" (RCA LSP 4321); and "The Best of Porter Wagoner and Dolly Parton" (RCA LSP 4556).
Merle Haggard is the son of a country fiddler from Checotah, Oklahoma, who moved to Bakersfield during the Depression, like so many other Okies. He held a lot of odd jobs, including some of dubious legality, and spent three years in San Quentin for armed robbery. Eventually, he began playing guitar in a small country club in Bakersfield and drifted into the world of country music. His huge hit in 1970 was "Okie from Muskogee," a controversial put-down of dope-smokin' hippies. Its performance has become obligatory for many long-haired folksingers. "The Best of the Best of Merle Haggard" (Capitol ST 11802).

Bill Monroe is credited with originating bluegrass, the name he gave to one of his early bands, though the music was actually a variant of the same country string music that had been bouncing around the southern mountains for generations. Monroe formed the Blue Grass Boys in 1938 and a year later began a thirty-two-year association as a member of the Grand Ole Opry. He was elected to the Country Music Hall of Fame in 1970 and still performs often. "Father & Son" (with James Monroe; MCA 310).

Loretta Lynn is the daughter of a Kentucky coal miner, a fact she made use of in one of her better and better-known compositions, "Coal Miner's Daughter." She was married at fourteen to a West Coast rodeo rider and began singing professionally in 1962 after her husband mounted a barroom table and announced that she could outsing the singer who was on-stage at that moment. She signed with Decca and now owns the 1,450-acre town of Hurricane Mills, Tennessee. "Loretta Lynn's Greatest Hits" (MCA 1), previously released by Decca as "Greatest Hits" (DL 75000).

Tom T. Hall has had one record or another on the country charts continuously for the past eight years, an incredible accomplishment. Country songs are inclined toward true balladry; they tell stories. Even in this environment, Hall is called "The Story Teller," and he lists as his major influences country guitar picker Clayton Delaney and author Ernest Hemingway. He is best known for writing the popular hit "Harper Valley PTA," but his best tunes are along the lines of "The Ballad of Forty Dollars," a sardonic look at a mourner at the funeral of a man who died without paying back a loan. "Tom T. Hall's Greatest Hits" (Mercury SR 61369).

Carl Perkins was one of the original innovators of rock and roll, his Blue Suede Shoes and similar tunes setting the style for what came to be called rockabilly. For years after his initial exposure, he stayed in the shadow of Johnny Cash, playing lead guitar in his band. Now Perkins is emerging as a country performer—considering what he did for rock, one is advised to stick around and see what he can do for country. "My Kind of Country" (Mercury SRM 1-691).
Continued from page 37

several hours worth of TV are devoted to it each week. In Southern California, televised country shows are virtually inescapable, and there is so much country-music activity in Bakersfield, California, that the city has nearly become another Nashville. About a dozen country performers have their own syndicated shows. The best known program, "Hee Haw," though cancelled by the CBS-TV network in 1971, made a comeback through syndication and now is seen on 205 stations by 33 million viewers. "Hee Haw" has made superstardom of its principals, Roy Clark and Buck Owens.

Last summer the replacement for NBC's "Dean Martin Show" was a country program, featuring no fewer than seventy-eight performers. Three hundred TV stations carry country regularly, and approximately one out of every four records sold in the U.S. is country.

Despite this great commercial appeal, country music has maintained an essential purity—a devotion to the ethics of rural southern and western America. Rural values abound in it: Simple emotions and common experiences are the rule. Song heroes are haggard by the price of bacon, not by the loss of individualism in an acquisitive society. And who can blame them? A man doesn't worry over some incident of savage office politics, he wonders if the car will start. True, country has become slick in the process of becoming commercial, to the extent that purists talk about "old-time country music" and "modern Nashville." Yet in the transition from fiddles and banjos to electric guitars and coordinated outfits, the values have remained intact.

Country music resulted from the addition of twentieth-century pop music to a wealth of folk music that has lived in the southern Appalachians since Colonial times. The great majority of colonists were British, Scottish, and Irish, and inevitably they brought their music with them. Those who moved into the southern mountains became more isolated and therefore more conservative and possessive of their traditions than those who settled in the heavily trafficked coastal areas. The mountain people held tightly to their music, and the similarity even today between Appalachian mountain music and traditional British folksong has surprised some folk musicologists.

"Our continent is crammed full of British-born folk music," folk historian and singer Oscar Brand writes in his book The Ballad Masters. This is, he maintains, "the single most important generating factor in our American music."

Brand cites as an example the case of the c&w hit The Battle of New Orleans, which was number one on the national survey during 1959. "The words were written by balladeer Jimmy Driftwood of Arkansas to the... old fiddle tune, The Eighth of January. According to all the newspaper and magazine accounts, this melody had been written in 1815 to celebrate the victory at New Orleans. But, in fact, the tune has been fiddled around the British Isles for centuries," he says.

The mountain music was performed almost exclusively by string bands—that is, guitars, banjos, fiddles, and an occasional bass fiddle. The music was nearly all up-tempo and exuberant. It was mainly instrumental. Vocalists were seldom heard, and when they did appear the vocal was a nasal afterthought, window dressing for the all-important string pickers.

Mandolin picker Bill Monroe is the leading exponent of this music, which we now call bluegrass. In a book by James Rooney, Newsmen: Bill Monroe and Muddy Waters, he describes an early memory: "The first music I heard was Uncle Pen and Uncle Birch and a man by the name of Clarence Wilson, and they played numbers like Soldier's Joy. Each town maybe had a little band, you know. I knew a little band eight or ten miles from us by the name of the Foster String Band—that was back in the Twenties—and I remember a band that had a fiddle, a Hawaiian guitar, mandolin. They might have had a banjo. They played breakdowns, dance music, a few waltzes, and a little Hawaiian music. Maybe there would be one man who would know a solo, and there was one fellow singing Greenback Dollar."

To this turkey-in-the-straw funkiness came the world of twentieth-century pop music. The radio brought to rural areas the strains of jazz, blues, gospel, and swing. In the Twenties and Thirties, there began to emerge performers who took a basic bluegrass bias and added to it influences from the various pop strains that drifted in from the ozone. Instruments were augmented by vocals. The tempo slowed down to allow the vocalist to warble a song of romantic love or of homage to the Creator. The familiar string lineup occasionally was augmented by a drummer. Necessarily, as the vocal replaced the fiddled melody, the singers tended to get better. And as they got better (which is to say, more acceptable to the public), the music became more popular.

Under the banner of "cowboy" or "western" music, country earned a wide audience during the Twenties and Thirties. Contributing to this popularity were radio, especially the Grand Ole Opry, which began broadcasting over Nashville's WSM during the 1920s; western movies, which employed country music and singing cowboys; and the development of "name" singers. The greatest of the big names, and the man considered the father of country music, was Jimmie Rodgers.

James Charles Rodgers, "America's Blue Yodeler," sold more records than Caruso (who gave recording its legitimacy) and left a lasting mark on popular music. The son of a railroad worker and himself a long-time railroad man, Rodgers sang songs of nearly every popular style, bringing them together under the aegis of country music. Though he sang different styles, he kept throughout a plain-
tive, mournful quality that came to mark nearly all subsequent country. He projected the same feeling long associated with the blues: that life is mean, but that music makes it better. Blues variations did form the largest portion of his 111 recorded titles.

He also set the pattern for lyrical topics. After Rodgers, country music seemed obsessed with loneliness as depicted by travel—especially, as in Rodgers' case, by rail.

His public career lasted only six years, from 1927 until his death from tuberculosis in 1933. He was the first huge star of country; his Victor recordings sold from 5 million to 75 million copies, depending on who's counting. RCA has kept its Rodgers recordings in good shape, with eight albums in the catalogue. Best is "Best of the Legendary Jimmie Rodgers" (RCA LSP 3315), which includes such hits as *Mule Skinner Blues, T for Texas,* and *The Mystery of No. 5."

While he didn't bring country out of the country, he did establish it as a powerful force in rural life. After him, a host of pickers and singers achieved stardom, among them the Carter Family, Roy Acuff, Hank Snow, Ernest Tubb, and Hank Williams. Williams was second only to Rodgers in his influence on country music. There are other similarities; Williams also had an exceedingly short career and died young.

According to Robert Shelton in *The Country Music Story* (Bobbs-Merrill, 1966), the excellent volume he wrote with Burt Goldblatt: "Hank Williams, an extraordinary poet and musician, died at twenty-nine of too much living, too much sorrow, too much love, too much alcohol and drugs."

Williams was born in 1923 in a small Alabama town, learned guitar from a black street singer, and formed his first band at age twelve. Eventually he came to the attention of Fred Rose, partner in the important Nashville music-publishing firm of Acuff-Rose, who put him with MGM. His first recordings, in 1949, were successful. Over a three-year span Williams wrote and recorded some of the all-time country classics: *Lovesick Blues, Cold, Cold Heart; Hey, Good Lookin'; Your Cheatin' Heart; I'm So Lonesome I Could Cry."

He died—officially of a heart attack—in the back seat of his Cadillac on the way to a concert New Year's Day, 1953. Twenty-five thousand persons showed up for the funeral. Williams was immortalized when in 1964 he was portrayed by George Hamilton in the film *Your Cheatin' Heart.* The view of country singers as hard-drinking pill-poppers who die young in Cadillacs was created in the public mind by Williams and recorded on film in 1973 by Rip Torn in *Payday."

MGM Records has displayed a tendency to package the few successful popular singers it has, including Hank Williams. Suggested is the two-disc anthology, "24 Greatest Hits" (MGM S 4755).

Like Jimmie Rodgers, Williams failed to bring country before the general pop-music audience. But he created enough excitement within the music industry to pave the way for the spread of country.

In an interview, Paul Ackerman, retired editor of *Billboard* and long-time observer of the country scene, made some comments on the growth of country music: "In the old days, pre-1945, like black music, country was one of the so-called specialty fields. Music was recorded by major labels and a sprinkling of indies, most of them in the specialty fields. In the 1940s, there were r&b indies, like Imperial, Atlantic, Aladdin. Country music was also a self-contained cultural entity. A record made for the country field was expected to sell in the country field and nowhere else.

"As the Forties went on, times were changing. Communications were developing. Population migrations put into motion by World War II brought awareness of the music of the rural South to persons who had been unaware of it. At the same time, there was the virtual collapse of the big-band business, leaving a vacuum. People began to tell us that the specialty stuff was beginning to sell pop. In the 1950s, the indies began to sell to a general audience."

"The advent of rock and roll in the mid-Fifties brought prosperity to such independent record companies as Imperial, Aladdin, Chess, and Atlantic. Both r&b and country artists became stars in the pop field, and hits recorded initially for one or the other specialty market often found their way onto the pop charts."

"One man crucial in all this," Ackerman says, "is Sam Phillips of Sun Records. Sam opened a recording studio in Memphis and discovered Elvis Presley, Jerry Lee Lewis, Carl Perkins, Johnny Cash, Roy Orbison, and Charlie Rich."

Another crucial figure in the spread of country, according to Ackerman, is Mitch Miller, who during the 1950s was head of a&r for Columbia. "Mitch didn't dig rock and roll," Ackerman said, "but he loved country songs. He dug down into the country bag and had his biggest pop artists record country music. Tony Bennett did *Cold, Cold Heart,* Rosemary Clooney did *Half as Much.* Jo Stafford sang *Jambalaya."

"Country music was breaking out of its bonds. This true root music of America came into the pop idiom. It's never retreated, though its entry was fought."

Country music was caught up in the ASCAP-BMI struggle that disrupted the world of music publishing in the middle to late Fifties. Many r&b, r&r, and c&w songwriters, feeling that ASCAP disapproved of their music, signed with BMI, the rival organization monitoring the receipt of royalties by songwriters for air play of their tunes. ASCAP waged a loud and ultimately unsuccessful struggle to have BMI outlawed.

"Publishers were very important in those days," Ackerman says. "The establishment, Tin Pan Alley, didn't understand or like this music, so ASCAP..."
didn't do very much for it. In country it was common for the performer to write his own songs. This is closer to the folk process, but it went against the grains of some of the Tin Pan Alley songwriters.”

ASCAP lost and later began paying attention to songwriters from what had been the specialty fields.

Ever since the Fifties, country has steadily grown in popularity across the nation. It broke through with the young rock audience in the late 1960s, when such superstars as the Byrds and Bob Dylan began recording it, starting a trend by rock groups and folksingers to record in Nashville using country musicians. Network programs like The Glen Campbell “Goodtime Hour” and “Hee Haw” brought country before prime-time TV audiences.

Finally, the concert-performance circuit for country performers expanded from the county fairs and rodeos of the South and West to New York’s Carnegie and Philharmonic (now Avery Fisher) Halls. A concert series featuring big-name country singers was held at Madison Square Garden this spring, and many northern cities have sprouted clubs offering country as regular fare. For example, Irish barkeep Hugh O’Lunney over a year ago adopted a country format for his popular East Side New York club, O’Lunney’s.

“When I opened this place, I tried traditional Irish,” he says. “Then I went through jazz and rock. I didn’t stick with either of these for too long a time. As time went on, I became dissatisfied with rock. It was just beat and volume. Then I got the feeling country was catching on in New York.”

The response has been good. “There’s a group of people who have been in every night for a week,” O’Lunney says. “They’re Texans and told me the club was the nearest thing to being home. Another fellow who’s been in all week is from Butte, Montana. He went to the Visitors Bureau, and they sent him here.

“People ask me how come an Irishman is into country music. My response is that country music had its origin in Ireland, Scotland, and Wales. Country is big in Ireland. Charley Pride sells very well over there.”

One of the more publicized events in the spread of country was the switching of prominent northern radio stations to that music. Early in 1973, the adoption of country music by old, large, middle-of-the-road WHN in New York coincided with a number of successful concerts in the city, and the result was unprecedented publicity for the moving of country into the urbs.

A talk with WHN general manager Chuck Renwick was instructive. He said, “Our parent corporation, Storer Broadcasting, changed WDEE in Detroit from a classical to a country station in 1970. That was a big success. Then we did the same with WCJW in Cleveland, and that also worked out well. . . . We began looking at the problem of New York. WHN was in a MOR format duplicating to some degree the offerings of a dozen other stations, . . . I had a strange and instinctual feeling that country would make it here. We were about the only major market without a large country station.

“We undertook a major piece of research. We hired the market-research firm of McHugh-Hoffman to measure the potential interest in country in an eighteen-county area. They took cassettes and played a representative sample of what might be heard on the air, then asked if the respondents would listen to it. Twenty-five per cent of the nonethnic (white) men and women over eighteen said they would. This would make us a lot better off than we were. We switched in February of 1973. . . . We’re quite ahead of what I expected. We have increased our audience by fifty-seven per cent and moved from fourteenth to around eighth in the ratings for adult listeners. I don’t feel that the growth is over.”

Renwick credits the Country Music Association, a Nashville-based trade group representing various facets of the industry, with a major role in the switch-over of WHN. “The Country Music Association is a very unique organization,” he says. “They said they would assist with just about any project their help was needed for. They have a sort of traveling road show, where spokesmen from the industry help convince advertisers as to how much country music is good business. They put on such a display for our advertisers. There’s no doubt it was helpful.”

The association was formed in 1958 to promote country music and subsequently formed such outgrowths as the Country Music Foundation and the Country Music Hall of Fame and Museum. It runs the annual country music awards in addition to the seminars for radio and TV stations seeking advertisers.

In the course of becoming popular, there was for country music an element of popularization. Rodgers popularized country by introducing the “weeper,” or schmaltzy love song. In more recent years, country artists have popularized their music by using instruments once considered alien to the form. Guitars and basses turned electric. Now some fiddles are fed directly into an amplifier. The electric steel guitar became a staple of country bands. Recently, country artists have recorded with full brass and string sections and even backup choruses. A few country singers, such as Glen Campbell, now are virtually indistinguishable from easy-listening warblers like Tony Bennett.

“Nevertheless,” Paul Ackerman says, “a country record still carries that country feeling. It’s a gutsy kind of material,” which describes accurately the day-to-day lives of a vast number of Americans.
Scott challenges you to find another speaker system in this magazine which offers the value of the Scott S-71.

There are many three-way acoustic suspension speaker systems on the market which, like our S-71, have 12" woofers and advanced design tweeters and cover the full audio frequency range. Five of these produce clean, uncolored sound free from audible distortion even at high listening levels. They, like our S-71, come in tastefully designed walnut cabinets and fit on bookshelves. They are made by respected manufacturers and widely advertised.

Where our S-71 separates itself from these competitors is in the value you receive for the price you pay. The speakers which compete in quality with the S-71 are priced at $285, $199, $273, $199, and $299 respectively. We sell our S-71 for $189.95.

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It's the feeling you get when the music really reaches you. Which may not be often unless you frequently go to live concerts.

Until now, no sound system could give you the "ambiance" and sense of realism that you hear at a live performance. That's why two CBS engineers invented the Leslie Plus 2® Speaker System. On October 16, 1973 Leslie Speakers/Electro Music was awarded U.S. patent #3,766,317 for a breakthrough in sound design. It was the first patent ever granted for effectively dealing with the "standing wave problem"—a technical phenomenon that robs stereo of its "live" qualities.

The new Leslie system produces a dynamic multi-directional or "Multi-planar" sound, thereby providing the listener with the sense of realism of a live concert. The Leslie Plus 2 system consists of two high-performance speaker systems with their own built-in and matched amplifiers. When added to conventional stereo systems, they expand the capabilities of the system to play either stereo or quadraphonic records with dynamic "Multi-planar" sound... at any location in the room... and at any sound level.

Test your stereo for 50¢. We have produced a special first-quality test record with isolated signal tones and test music. Put your stereo through its paces. Then take the record to your franchised Leslie Plus 2 dealer. Listen to the same music. And you be the judge!

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Leslie Speaker Model 430

Leslie Speaker Model 450

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 LESLIE PLUS 2 SPEAKERS, ELECTRO MUSIC/CBS, INC., 56 WEST DEL MAR AVENUE, PASADENA, CALIF. 91105

□ I want to put my stereo to the test! Please send your 7" LP test record. 50¢ is enclosed for postage and handling.

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Electro Music, CBS Musical Instruments, A Division of CBS, Inc. Leslie and Plus 2 Speakers are registered trademarks of CBS, Inc.
Dyna Adds Super AM to an Excellent FM Tuner

The Equipment: Dynaco AF-6, an AM/stereo-FM tuner available in kit form or factory-wired. Dimensions: front panel, 13⅞ by 4 ⅛ inches; chassis depth behind panel, 10 ⅞ inches. Warranty: factory-built units, one year on parts and labor, shipping paid one way; kit-built units, one year on parts, nominal service fee, shipping paid both ways by owner. Kit warranty void if unit is not completely assembled or if other than rosin core solder has been used. Price: factory-built, $325; kit, $225; optional CAB-1D wood case, $17.95. Manufacturer: Dynaco, Inc., 3060 Jefferson St., Philadelphia, Pa. 19121.

Comment: True to its long tradition, Dynaco once again has come up with a unit that offers uncontestable value in terms of performance vs. cost. If you build the kit version, the bargain becomes even more striking. The AF-6 is, in short, a top-quality tuner whose performance is exceptional on FM and simply the best we have yet encountered on AM. In terms of station-pulling power, clear sound, and low distortion, the AM section of the AF-6 has to be heard to be believed. Given a good clean AM signal, this tuner may begin to convince you that there is, after all, something to the oft-heard claim that AM can be a high fidelity medium, or nearly so.

The AF-6 is essentially a slightly updated version of the company's FM-5 tuner (HF test report, September 1972) with the AM section added. The front panel contains a generously spaced tuning dial with channel markings for FM and AM and a logging scale between. At the far left of the dial is a signal-strength meter for both FM and AM. There are two indicator lamps: One lights up when you tune in a FM station, the other for stereo reception. The tuning knob itself is at the right of the dial.

Also on the front panel is a combined off/on and output level control followed by three rocker switches. The first switch serves two uses. When the set is switched for FM—via the second rocker switch—the first chooses between mono FM, stereo FM with filter, and stereo FM without filter. The filter reduces high fidelity separation and also rolls off the extreme highs to improve the signal-to-noise ratio on weak stereo signals. When the set is switched to AM, the first rocker selects narrow-, medium-, or wide-band operation; the position to use is the one that suits the kind of AM signal being received.

The third rocker also has three positions: off, muting, and Dynatune. In off position, the interstation muting and the automatic Dynatune feature are disabled. In the middle position, muting action silences the noise between stations. In the Dynatune position, automatic "logic" circuitry locks in on a tuned station even if the dial is set somewhat off frequency.

The rear of the AF-6 contains twin stereo pairs of output jacks wired in parallel and intended for connections to an amplifier and a tape recorder simultaneously, although you also can run two separate amplifiers or two tape recorders at the same time if you choose. Both sets of outputs are regulated by the front-panel level control. For FM there are screw terminals that accommodate both 300-ohm twinlead and 75-ohm coaxial cable directly. For AM there's a swing-out loop antenna plus terminals for connecting an external long-wire antenna. The set's line cord, a switched AC outlet, and the fuseholder complete the picture here.

Readers of the original report on the Dynaco FM-5 (reprinted, by the way, in the 1974 edition of High Fidelity's Test Reports) may recall the excellent performance we described for this set. Just to recap the highlights, mono sensitivity came in at 1.4 microvolts across the dial, with the mono quieting curve descending to -50 dB for a mere 10 microvolts of RF input. Added to this were such favorable characteristics as very low distortion, linear response, excellent signal-to-noise ratio, and ample channel separation. We concluded then that the FM-5 was a real winner, and it has remained so.

The new version strikes us as no less worthy on FM, with the added fillip of a definitely superior AM section.
With its built-in loopstick antenna, the set pulled in more AM stations more clearly than any previous tuner or receiver we can recall. (But performance was still better with the Dymek antenna—see the following report.)

Building the kit version of the AF-6 is reminiscent of the work in putting together the FM-5, except of course for the few additional steps involved in the AM section. One area that we found tricky in the FM-5 and that has been simplified in the AF-6 is the wiring of the FM antenna-matching coil; this is still a delicate job but not as pesky as in the older tuner. The first step in the kit-building work is mechanical assembly of switches, connectors, and the like. You then make wiring connections to the various chassis parts. Next you begin wiring to and from the printed circuit boards. There are three of them, and they come with all components pre-installed. You install the boards, finish the wiring, string the dial cord, trim the AM antenna (with the aid of the front-panel meter), slip the outer case over the chassis, and you're done. Total work time should come to no more than seven hours, depending on how skilled you are in kit building.

There were two steps in the work that required some elementary ingenuity on our part. One step refers to a disc capacitor whose leads are to be trimmed to 1/2 inch. In our kit the leads came pretrimmed to about 1/4 inch. We thus had to extend the leads by soldering to them some wire taken from the ample supply in the kit. A later step involves a very stiff, heavy wire going to the AM front end. As it happened, this wire was a bit short to reach; we therupon took some of the leftover stranded wire from the power cord, tinned it to stiffen it, and added it to the original wire for a suitable connection.

Other than these little "problems" the work went smoothly as per instructions, and the set performed superbly upon completion without any need for alignment, either in FM or AM. Chalk up another winner for Dyna.

**CIRCLE 141 ON READER-SERVICE CARD**

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**Believe It or Not:**

**A High Fidelity AM Antenna**

![Image of a high fidelity AM antenna](image)

**The Equipment:** McKay Dymek DA-3, a directional ferrite-rod AM antenna assembly. Over-all dimensions: 13% by 9 1/16 by 11 inches. Price: $127. Warranty: one year parts and labor; customer pays shipping both ways; nationwide free telephone service available for maintenance questions. Manufacturer: McKay Dymek Co., 675 N. Park Ave., Pomona, Calif. 91768.

**Comment:** At the outset one tends to suspect McKay Dymek of being a bit peculiar. After all, who in his right mind manufactures a high-performance AM-only tuner? (See Equipment in the News, May 1974.) The AC-powered DA-3 antenna was designed specifically for that tuner, although it also works with any medium-wave (regular AM broadcast band) receiver or tuner. Assuming most readers own equipment other than the Dymek tuner, we tested the antenna with three units representing a cross section of stereo systems.

The DA-3 looks a little like a fluorescent table lamp with a swivel connecting the housing around the ferrite antenna element (where the fluorescent tube would be) to a pedestal base. The swivel allows the antenna element to be rotated horizontally in a complete circle or tilted diagonally; its movement is limited only by physical contact between one end of the element and the unit's base. A knurled knob at the top of the support bracket fixes the antenna in optimum reception position.

A calibrated circular dial in the base controls a tuning capacitor inside. There also is a knob for varying the sensitivity of the internal circuitry and another that acts as an on/off switch. The only other feature of this front panel is a pilot light. A panel at the back of the base has a socket for an external 6-volt DC power supply (not supplied), the AC cord, a pin-type output jack to feed the antenna terminals of your receiver or tuner, and another pin jack for the input from a separate AM antenna should you choose to use one in conjunction with the DA-3.

A 3-foot shielded interconnect cable is supplied for the output from the DA-3. McKay Dymek says cable length is not critical, and we observed no difference in using 3-foot and 10-foot extensions (the regular audio kind with a male connector on one end and a female on the other, available in most audio stores). You may want to do likewise, since—particularly in a reinforced concrete apartment building—a windowsill seems the best location for the antenna and you may want your electronics elsewhere in the room. The auxiliary antenna input on the DA-3 could be used for an outdoor long-wire antenna; when you turn on the DA-3 the auxiliary antenna automatically is disconnected and the ferrite element substituted. Long-wire antennas, though a standard alternative to the ferrite antennas commonly built into tuners and receivers, have two signal disadvantages: Unless specially built for the purpose, they can't be reoriented at will when you change stations, and often—particularly if you live in an apartment house—it may even be impossible to string up one that is effective.

In our tests we used a high-performance separate tuner (the Dyna reviewed in this issue) and two recent quadrophonic receivers (they happened to be from Harman-Kardon and Kenwood, but many other models presumably would have provided similar results). Our testing location combined two common AM reception problems: a few relatively strong local stations (one only a mile away) with many weaker ones nearby on the dial, and a good deal of electrical interference. Testing was conducted during early afternoon hours, when long-range propagation is at a minimum but local, daylight-only stations are still on the air. (Sunlight falling on the
What Is High Fidelity AM?

We have commented repeatedly that the AM sections to be found in typical modern high fidelity components are "good." How good is good, and why would anyone be interested in spending over $100 on an antenna to make good better?

It seems to be a foregone conclusion among designers of high fidelity electronics that when such equipment is used for AM it will be on local signals of reasonably high strength and good inherent quality. If the listener is chasing far-off stations (a whole hobby in itself, known as DX-ing), he will choose quite different equipment: communications receiver of high sensitivity and selectivity that ignore the quality of the received audio in favor of bare intelligibility on as many stations as possible.

There are several reasons for this dichotomy. Advertising for fine FM tuners in recent years has suggested one of them: if (intermediate-frequency) filter characteristics. Both FM and AM tuners use these filters as "windows" to admit the tuned station but exclude its neighbors on the dial. If the band-pass window is too wide, it will admit too much of the neighboring signals and cause interference; if it is too narrow, it will cut off the "skirts" of the tuned signal, which can both limit the audio bandwidth of the received signal (that is, limit its high-frequency response) and introduce distortion. No band-pass filter is perfect in this respect, and for that reason its design is to some extent a matter of compromise.

High fidelity products usually make this and similar compromises in favor of solutions that will inhibit an already-good signal as little as possible. Such a signal will therefore be reproduced cleanly and fully—and probably sound much better than it would on a communications receiver. But if the incoming RF signal is weak, and particularly if there are much stronger signals in this part of the dial, the high fidelity product can suffer much more severe interference than the communications product. which should be designed to handle this particular problem with equanimity.

To some readers it may seem like an anomaly that any receiver would even try for wide frequency response on AM; isn't AM limited to an 8-kHz top at best, while FM can cover the full range to 20 kHz? The answer is no. FM can reach 20 kHz in mono, but not in stereo because of interference with the 19-kHz pilot signal. The FCC specs FM performance to only 15 kHz, and though stations are required to provide proof of performance to this frequency, signal-processing techniques in common use (see "What's Wrong with FM Sound?" in the November 1973 issue) may keep actual flat response below that frequency on many stations. AM response is limited partly by the bandwidth assigned to the station, partly by its own engineering standards, and partly by the intentional limiting of the high-end response (to reduce noise) in typical AM radios. So a "clear-channel" station with high engineering standards, and received on good equipment, can in fact make it to 10 kHz—or about the same top limit as many FM stations.

So a "good" high fidelity AM tuner section is one that will make the most of good incoming signals. For some music listeners (and apparently the number is increasing—see "Too Hot to Handle" in the May issue) this is not enough; they want both maximum quality in the received signal and maximum station-pulling capacity. And in this respect both the McKay Dymek antenna and the Dyna tuner reviewed in this issue give new meaning to the concept of high fidelity AM.

upper atmosphere affects ionization and changes propagation drastically. At night AM signals can "bounce" for extremely long distances; local stations assigned to the same frequencies would interfere with each other and hence are given daylight-only licenses. At night most equipment will pick up the strong "clear-channel" signals of major stations even hundreds of miles away.)

We logged the stations each unit could receive on its built-in antenna and then noted the increase in signal strength and number of stations logged when we added the DA-3. To test the antenna's sensitivity, selectivity, and ability to null unwanted, strong local signals, we searched out several stations normally "hidden" by the nearest AM station's signal.

We first tuned the receiver or tuner to an AM frequency using the signal strength meters. We then matched the DA-3's frequency dial as closely as possible and rotated the head for strongest signal as shown on the tuning meter. The dial is calibrated at 550, 600, 700, 800, 900, 1,000, 1,100, 1,200, 1,400, and 1,600 kHz, and—particularly in the lower part of the range—those calibrations proved fairly exact. Following instructions in the brief (but adequate) booklet provided, we found we also could null out interfering stations by positioning the antenna element correctly. No instructions are given for operating the selectivity control, but we found it easiest to start in the fully clockwise (most sensitive) position and then reduce sensitivity only when stations interfered with each other.

Using just the built-in antennas, receiver A logs 18 stations, of which 3 are essentially clear; receiver B logs 23 stations, of which half a dozen are quite clear; the tuner, which has a narrow/medium/broad AM bandwidth selector, logs more than two dozen stations, of which about 10 are quite clear.

Once the DA-3 is added, conditions improve dramatically. Both receivers log more than 40 stations, a dozen with virtually no noise. In the critical area around the strongest local station, we can isolate, with only a hint of background noise, stations 20 and 50 kHz below and 20 kHz above the local station by detuning the selectivity control and positioning the antenna correctly. These stations were judged unlistenable on both receivers in the tests with built-in antennas only. The separate tuner provided us with an unexpected treat. We did not log a significantly larger number of stations with the tuner/Dymek combination than we did with the receivers and Dymek, but the signal quality with the tuner is so fine on the best stations that the sound actually is exciting in its realism. While the tuner's AM section is excellent, its performance is even better with the DA-3. In all cases, apparent signal strength, as measured by the signal meters, was increased between four and eight times.

Obviously our reaction to the Dymek antenna was very positive. In essence it adds an extra tuned RF stage with variable gain to the front end of your AM section, and on typical stereo receivers this can sharpen up AM performance to a striking degree. If you are one of those readers who must fall back on AM for a significant portion of your music listening, the DA-3 could offer a really striking improvement to your high fidelity system.

CIRCLE 142 ON READER-SERVICE CARD
An Impressive FM Receiver from Yamaha

The Equipment: Yamaha CR-1000, a stereo FM receiver in wood case. Dimensions: 20 by 6% inches (front); 13½ inches deep excluding controls and backpanel connections. Price: $799.95. Warranty: five years on parts, three years for labor; shipping to warranty service center paid by customer. Manufacturer: Nippon Gakki (Yamaha), Japan; U.S. distributor: Yamaha Audio Division, P.O. Box 6600, Buena Park, Calif. 90620.

Comment: The prospect of testing Yamaha's top receiver—the $800 FM-only CR-1000—intrigued us. We wanted to see what their engineers would do when they could pull out all the stops, so to speak. It turns out that this unit is the sort of design an engineer comes up with when he's been given his head and allowed to include the little touches that normally get ruled out on grounds of keeping costs down.

Let's begin with the tuner section. There are signal-strength and channel-center meters at the left of the dial and three red pilot lights at the right for stereo reception, AFC operation/station, and AC power. The tuning knob at the extreme right also controls the AFC via a capacitance switch. When you touch the knob, the AFC automatically disengages and its light dims. When you are satisfied with the tuning and release the knob, the AFC automatically locks back in and the lamp resumes full brightness. If you tune beyond the station, the AFC light goes out altogether, indicating that it has no carrier to lock onto.

This feature disturbed us a little at first, since we associate AFC with drift-prone inexpensive equipment and hence with distorted reception. Not to worry. We could detect no drift whatever in the CR-1000. And when we “outraged” the capacitance switch by using a string around the knob to detune without defeating the AFC, we discovered that its action is very gentle. It will correct minor mistuning—the only kind we would ever expect in the CR-1000—without introducing audible distortion and without pulling in adjacent, strong channels if you're tuned to a weak one.

One of the six sliders in the middle section of the front panel controls FM muting threshold. The minimum position turns it off altogether; the maximum position overrides all incoming signals weaker than 30 microvolts. The signal-strength meter is calibrated in microvolts (instead of the usual, arbitrary divisions). The back panel has knurled binding posts for both 300-ohm and 75-ohm antenna lead-in, plus a coaxial connector for 75-ohm cable. There are pin jacks for both IF output and multipath, to be used in conjunction with an oscilloscope unit, if you have one, in optimizing antenna orientation.

FM performance is truly excellent. In mono sensitivity measures 1.4 microvolts; more important, the quieting curve descends below 50 dB before input signals have reached 3 microvolts and is better than 60 dB for all inputs above 25 microvolts. Stereo performance is equally spectacular. From the stereo threshold at 7 microvolts, quieting descends from 38 dB to beyond 50 dB for inputs of 100 microvolts and more. Only in the response and separation curves could we find anything to cavil about—or any measurements that did not meet or exceed Yamaha's unusually comprehensive specifications. The peak at the high end of the right-channel stereo response is larger than we would have expected in a unit of this quality, and the separation as measured at CBS Labs is a little less than Yamaha's rating of 45 dB at 400 Hz and 35 dB from 50 to 10,000 Hz. But the separation is excellent nonetheless.

There are two phono inputs at the rear, one of which has an input impedance switch with positions for 30k, 50k, and 100k ohms. The sensitivity and S/N figures shown in the Additional Data table apply equally in any position of this switch or in using the phono 2 connections, which have an unswitchable impedance of 50k ohms. A phono impedance of 47k ohms is standard in this country; the 50k figure, often used in Europe, is a close match. Outside of a slight droop in the extreme bass, RIAA response is near-perfect; few receivers can match it. The rear also has connections for two aux inputs and for two tape decks, with front-panel switching for monitoring from either deck or for dubbing from either one to the other. The mode switches include stereo, reverse stereo, left-plus-right mono, left only, and right only. The back panel is equipped with two switched and two unswitched AC convenience outlets. Two knurled binding posts are provided for ground connections.

The front panel has a mono mike input (a phone jack) feeding both channels via a separate microphone volume-control slider. The mike's signal enters the receiver's circuity beyond the tone and filter controls and therefore is unaffected by them. If you want to record from the microphone, you can do so by connecting the tape deck's input to preamp-output jacks on the back panel, a setup that will also allow you to mix the mike pickup with signals from another input, using the volume control as the mixer level control for that input. (The other input will be altered by any tone or filter compensation set on the front panel.) The preamp-output jacks can also be used in conjunction with amp-in jacks next to them for insertion of a speaker equalizer, electronic crossover, or other outboard unit. A switch below the jacks, held by a plastic latch so it can't be activated inadvertently, separates the preamp section from the power amp should you want to use an outboard unit.

The tone controls are sliders (one for bass, one for treble, each calibrated from 0 to 5 in both directions, cut
Yamaha CR-1000 Receiver Additional Data

**Tuner Section**
- **Capture ratio**: 1 dB
- **Alternate-channel selectivity**: 88 dB
- **S/N ratio**: 78 dB

**Harmonic Distortion Curves**
- 70 WATTS OUTPUT
  - Left channel: < 0.05%, 20 Hz to 20 kHz
  - Right channel: < 0.13%, 20 Hz to 20 kHz
- 35 WATTS OUTPUT
  - Left channel: < 0.08%, 20 Hz to 20 kHz
  - Right channel: < 0.12%, 20 Hz to 20 kHz

**Intermodulation Curves**
- 8-ohm load: < 0.073% to 95.3 watts
- 8-ohm load: < 0.18% to 127.6 watts
- 8-ohm load: < 0.08% to 61.6 watts

**Amplifier Section**
- **Damping factor**: 61
- **Input characteristics (for 70 watts output)**
  - **Sensitivity**
    - phono 1 & 2: 2.6 mV
    - mike: 2.9 mV
    - aux 1 & 2: 140 mV
    - tape A & B: 138 mV
  - **S/N ratio**
    - phono 1 & 2: 69 dB
    - mike: 70 dB
    - aux 1 & 2: 89 dB
    - tape A & B: 90 dB
- **RIAA equalization accuracy**: +0, −1.5 dB, 20 Hz to 20 kHz
The nature of the compensation they introduce is controlled by a pair of three-position switches nearby. That for the treble selects turnover frequencies of 2.5 kHz or 5 kHz; that for the bass, 250 Hz or 500 Hz. In addition there is a high filter switch with settings for 6 kHz and 12 kHz; and a low filter switch with settings for 20 Hz and 70 Hz. All these switches have "off" or "defeat" settings too. In each case the indicated frequencies are confirmed by the lab's curves as approximately the "3-dB points", where output is doubled or halved by tone-control or filter action. The loudness control is a slider with click stops from 10 to 1 plus "flat". By providing this separate loudness slider, Yamaha has freed the compensation action from dependence on volume-control settings and therefore from any limitations imposed by speaker efficiency or input levels—either of which can upset the degree of compensation assumed necessary for various volume-control settings with conventional on/off loudness switches.

The amplifier section is unusually powerful for a receiver and is rated at 0.1 per cent THD—a low figure, though not uniquely so. It meets its rating of 70 watts per channel handily, with both channels driven, in all respects but one: the very slightly over-spec readings in the deep bass in the right channel only at full output.

The Miracord 760 (Or: How to Save $60 Without Haggling)

The Equipment: Miracord Model 760, a three-speed (33, 45, 78) automatic record changer. Dimensions: 14¼ by 12½ inches (chassis plate); requires 5½ inches above mounting board and 3½ inches below. Price: $199.95. Accessories: VB-50 vinyl-laminated base, $12.95; WB-700 wood base, $19.95; DC-1 dust cover, $7.95; DCP-7 dust cover (can be used with changer in operation), $16.95; SA-383 changer spindle for large-hole 45s, $11.95. Warranty: one year on both parts and labor. Manufacturer: Elac, West Germany; U.S. distributor: Benjamin Electronic Sound Co., 40 Smith St., Farmingdale, N.Y. 11735.

Comment: The Miracord 760 is, knob for knob and screw for screw, almost identical to the 50H Mk II (HF test report, November 1972) with the exception of the motor. Whereas the 50H uses a hysteresis motor, the motor in the 760 is of a high-performance nonsynchronous design. A hysteresis motor, it's true, will lock onto the power-line frequency (60 Hz) for ultrastable rotation speed (though sudden changes in power-line voltage can cause the "lock" to loosen momentarily), while an asynchronous motor will not. But the 760 has such good speed stability and is otherwise so excellent that many purchasers will cheerfully save the $60 by buying the newer model.

First, a brief recap of the 50H/760 operating features. Four buttons near the tone-arm rest are for selection of outer diameter for automatic operation (7, 10, or 12 inches) and stop. A switch at the front left has three positions for the operating speeds. A vernier knob at the back left adjusts rotation speed within a range of approximately ±3 per cent. (A strob disc built into the platter cover is for 33 rpm with rings for both 60-Hz and 50-Hz lighting; no strob rings are provided for the other speeds, though accessory strob discs can be bought for the purpose.) An antiskating control knob near the arm pivot is calibrated in whole grams, and the tracking-force dial built into the pivot, in quarter grams. The control lever for a damped cueing system is just to the right of the tone arm. The arm rest locks the arm securely when not in use.

The unit comes with two spindles: a "Magic Wand" for changing records automatically and a stub spindle for single-play operation with or without all other automatic features. The stub can be inverted in the spindle hole, causing continuous repeat play of a record. No adapter is provided for large-hole 45s, but a changer spindle for them can be purchased as an accessory.

A clip-in adapter holds the cartridge in position in the arm and also makes the necessary electrical contacts. Calibrations on the adapter are aligned with the stylus for correct overhang, which is confirmed by contact between the stylus tip and a small cleaning brush mounted below the at-rest position. (The brush mount itself also serves as an overhang gauge as in past Miracords; the mounting's calibration seems preferable since a care-
less user conceivably could damage a stylus on the older gauge.) Balance is achieved via a rectangular counterweight; then tracking force and antiskating are set on their respective dials.

As the Additional Data table shows, CBS Labs found the tracking-force calibration to be quite accurate. Antiskating is a little on the high side for tracking forces below 0.5 grams (a range one would not normally need anyway), very close to "ideal" values for elliptical styli tracking between 0.5 and 1.0 grams, and close to ideal for spherical styli at 2.5 to 5 grams. The action therefore is most accurate in the ranges most owners may be expected to need. Ellipticals generally shouldn't track above 2 grams, where antiskating is somewhat below ideal values for them; nor are most sphericals designed for use in the 1-gram range, where antiskating will run a little high. If you do need to track these configurations in these ranges, however, and are fussy about antiskating, a small compensation could be made in the setting.

The changer action can be characterized as "slow but gentle." The cycle time at 33 rpm is 16 seconds, and damping in the cueing causes the arm to drift down onto the disc. Moreover, no side drift can be detected in the arm when the cueing lever is used manually to interrupt play. Both lateral and vertical planes have negligible arm friction (less than 20 milligrams). A mere 0.15 grams trips the changer cycle.

The dynamically balanced platter weighs 6 pounds, 2 ounces. Flutter averages at the low value (ANSI/IEEE weighting) of 0.05 per cent (0.1 per cent peak), and rumble is extremely low at -63 dB (CBS/ARLL), which in common with the best single-play units is the lowest rubble figure we have ever measured. In fact the 760 measures some 10 dB better than Miracord's own 50H Mk II. (The latter, however, was measured over a year ago; there may have been upgrading in the meantime.) Arm resonance (with a Shure V-15 Type II Improved cartridge) is entirely satisfactory: a 6-dB rise at 6.5 Hz.

The 760 is, all told, a very fine changer indeed, and it operated flawlessly during our tests. If you don't feel you need the fussier features (stylus wear indicator and adjustment of vertical tracking angle for the height of the record stack) of the 770H, and if you can live without the hysteresis motors of the 770H and the 50H Mk II, this is the Miracord to own.

CIRCLE 145 ON READER-SERVICE CARD

Miracord 760 Additional Data

<table>
<thead>
<tr>
<th>Speed accuracy</th>
<th>Set Measured</th>
</tr>
</thead>
<tbody>
<tr>
<td>33 rpm</td>
<td></td>
</tr>
<tr>
<td>0.5% slow at 105 VAC</td>
<td>1.0</td>
</tr>
<tr>
<td>0.2% fast at 127 VAC</td>
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</tr>
<tr>
<td>45 rpm</td>
<td></td>
</tr>
<tr>
<td>1.1% slow at 105 VAC</td>
<td>1.9</td>
</tr>
<tr>
<td>0.4% slow at 120 VAC</td>
<td></td>
</tr>
<tr>
<td>0.2% slow at 127 VAC</td>
<td></td>
</tr>
<tr>
<td>78 rpm</td>
<td></td>
</tr>
<tr>
<td>1.3% slow at 105 VAC</td>
<td>2.8</td>
</tr>
<tr>
<td>0.6% slow at 120 VAC</td>
<td></td>
</tr>
<tr>
<td>0.1% slow at 127 VAC</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Speed vernier range</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>33 rpm</td>
<td>-2.5 to +2.9%</td>
</tr>
<tr>
<td>45 rpm</td>
<td>-3.3 to +2.6%</td>
</tr>
<tr>
<td>78 rpm</td>
<td>-3.0 to +2.2%</td>
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</table>

<table>
<thead>
<tr>
<th>Stylus tracking-force gauge accuracy (grams)</th>
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<th></th>
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<tbody>
<tr>
<td>Set</td>
<td>Measured</td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>1.0</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>1.9</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>2.8</td>
<td></td>
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<tr>
<td>4</td>
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</tr>
<tr>
<td>5</td>
<td>4.8</td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>6.0</td>
<td></td>
</tr>
</tbody>
</table>

Comment: Considering the modest price, the A-260 is a very attractive product indeed. It both looks and sounds like a more expensive job; and though some corner-cutting is evident in both the lab findings and in the control features, the design is well conceived for its purpose.

The controls are simple. The selector knob at the left has positions for tape, tuner, phono, mike, and aux—all of them mirrored by magenta input indicators that light in the dark glass strip at the top of the front panel. At the center are five pushbuttons: main speakers, remote speakers, Quadraphase, mono, and tape monitor. The monitor does not duplicate the tape position on the selector; the former is for use with the normal input and output jacks on the back panel, while a separate playback-only pair is connected to the selector. The mono button combines signals; there are no left-only and right-only mono-mode selectors. Use of the first three buttons will be explained in a moment.

Flanking the pushbuttons are a pair of sliders with calibrated click-stop settings to control bass and treble. No filters are provided. A right/left balance slider is below the pushbuttons. There is no front/back balance control for the Quadraphase mode. At the right is the volume-control knob, and below it are on/off pushbuttons for loudness compensation and AC power. At the lower left are separate (mono) phone jacks for left and right mike (or aux) inputs and a stereo headphone jack, which is live at all times.

The back panel has input and output jacks for the sig-

Superscope's Stereo and Quasi-Quad A-260 Amp


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nal sources already catalogued, plus two pairs for preamp-out and main-in. A switch nearby uncouples the amp from the preamp section should you decide to use these jacks for an outboard equalizer, quadraphonic decoder, or whatever. There are aux selectors on the back panel that parallel the mike inputs when the selector is in the aux position; when the selector is moved to the mike position, the back-panel aux inputs are disconnected and a stereo mike preamp inserted into the front-panel input circuit, converting it for mike use. A ground terminal is provided near the back-panel inputs.

Aside from two convenience AC outlets, one of which is switched with the main AC switch, the major remaining feature of the back panel is the collection of spring clips (accepting bared-wire leads) for speaker connections. There are three sets—for the main speakers, the remote speakers, and the back speakers. With the Quadraphase button on the front panel out (and the unit therefore in the regular stereo mode) you can select either the main or the remote speaker pair ad lib. When you push in the Quadraphase button the remote speakers are turned off (to prevent amplifier overload). At the same time, the back speakers are connected in a differential or speaker-matrix configuration to the amp’s output. We’ve discussed the virtues of such a configuration several times before; suffice it to say that the results can be uncannily like real quadrophonics.

The amplifier itself is good without being in any way special. Superscope has used widely accepted practice as the basis of its power ratings—which are stated only with the channels driven individually and, with reference to distortion, only at 1 kHz. The resulting rating of 20 watts per channel for 0.5 per cent harmonic distortion may seem a little optimistic by the standards presently expected in more expensive components, where rating practices have become notably more conservative over the last year or two. CBS Labs found the output at clipping to be a little under 20 watts per channel with both driven, and distortion in the extreme bass rises well beyond the rating (which, again, is not claimed to extend to these frequencies) at 20 watts’ output. The right channel, in fact, barely meets its specs.

But as long as you’re not making maximum power demands on the amplifier, distortion will stay comfortably below spec. We were able to drive all four speakers (representative bookshelf models) to pleasantly loud levels in a moderate-sized room with no sense of strain on the amp. S/N ratios, while not generous, are certainly adequate for such use.

The features of the unit, while omitting some “standard” items like filters, are certainly more than adequate in other respects. The convertible aux/mike inputs on the front panel are a novel and useful idea; the mike signals can be recorded via the tape-output jacks at the back if you wish. And of course the Quadrapha option has its own special charms. All told, the unit strikes us as an excellent value.

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**Superscope A-260 Amp Additional Data**

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Damping factor</td>
<td>40</td>
</tr>
<tr>
<td>Input characteristics (for 20 watts output)</td>
<td></td>
</tr>
<tr>
<td>Sensitivity</td>
<td>S/N ratio</td>
</tr>
<tr>
<td>phono</td>
<td>1.9 mV</td>
</tr>
<tr>
<td>mike</td>
<td>2.1 mV</td>
</tr>
<tr>
<td>tuner</td>
<td>120 mV</td>
</tr>
<tr>
<td>tape</td>
<td>120 mV</td>
</tr>
<tr>
<td>aux</td>
<td>120 mV</td>
</tr>
<tr>
<td>RIAA equalization accuracy</td>
<td>+0.25% , -3 dB, 20 Hz to 20 kHz</td>
</tr>
<tr>
<td>Intermodulation distortion</td>
<td></td>
</tr>
<tr>
<td>8-ohm load</td>
<td>&lt;0.08%, 0.1 to 16.0 watts</td>
</tr>
<tr>
<td>4-ohm load</td>
<td>&lt;0.25%, below 0.4 to 14.2 watts</td>
</tr>
<tr>
<td>16-ohm load</td>
<td>&lt;0.10%, below 0.1 to 11.9 watts</td>
</tr>
</tbody>
</table>

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Square-wave response
How Do Speakers Work?

by Robin Lanier

Even the person who calls an electrician to change a light bulb needs some knowledge of what makes speakers operate if he is to choose the right system for him.

When you come right down to it, you don't need to know how speakers work. But understanding can tip the balance of dangers and rewards in your choice of speakers toward rewards, and your use of speakers can be made more productive. Then there is the pure pleasure of knowing what an audio device or system is up to when it performs its transformations—its re-creations.

In choosing speakers you will want to know the rationale behind each of the main types of speaker and the principal technical features that are the common currency of speaker promotion. The amateur can do a thoroughly valid job of evaluation by putting together his knowledge of general expectations with the information he receives through his own ears. Some aural training is vital, to be sure, but it is both pleasurable and extremely useful.

A basic examination of speakers must start with the stream of electrical power coming from the amplifier, power which represents the music or other sound we are calling on the system to reproduce. Electrical power is not sound; it resembles it only in that the two vary—in time and in intensity—in the same way.

The variations in air pressure that we perceive as sound actually are tiny. The trick is not so much in building a device that will produce these variations as in making one that will translate electrical power into mechanical energy and mechanical energy into radiating waves of air-pressure variation without losing too much in the translation. A loudspeaker is hence not just a transducer, but an electro-mechano-acoustic transducer.

The most common motive force for accomplishing the two transformations—the speaker that has dominated every form of sound reproduction since its invention in 1925—is electrodynamic. The basic plan of this workhorse of modern communications is sketched in the first drawing. A coil, the "voice coil," is suspended near a strong magnet; the coil is firmly attached to a broad cone or diaphragm. (There has been a good deal of experimentation with flat diaphragms recently, though cones are used in the vast majority of speakers.) The diaphragm is free to move a short distance back and forth. When the pulsating power from the amplifier is fed through the voice coil, the coil will be pushed back and forth along its axis by the magnet, in step with the pulsations of the electricity. The cone follows and pulsates against the air. The resulting air-pressure waves travel out in all directions, reaching a listener's ear at a speed of about eleven hundred feet per second. They therefore take about one-hundredth of a second to cross the ten feet of an average living room.

The relation between electricity, magnetism, and mechanical motion used here is a fact of nature: the basis for the millions—or perhaps billions—of electrical motors that make our civilization go. And a reasonably good dynamic transducer is inexpensive, rugged, and a cinch to design, does a solid, no-nonsense job, and has enough fidelity to make highly acceptable music in many situations. These easily attainable virtues explain why the dynamic speakers have had such a hold on sound reproduction for so long.

Good Is Not Enough

When we want the speaker to reproduce the entire musical range, including lowest bass and highest
overtones and with distortion so low it is not perceptible in the most careful listening, the weaknesses of the dynamic speaker crowd in upon us. In one sense, all speaker developments of the last several decades have been attempts to overcome these weaknesses, and we can survey the field rapidly by considering each of the main weaknesses and the remedies devised.

Speakers fall from high fidelity grace for three main reasons: failure to reproduce the low bass and high overtones; unevenness of action through the range, with some frequencies sharply overemphasized ("peaks"), or whole ranges out of balance with others; and harmonic and intermodulation distortion that blurs the sound by altering the input wave forms.

It is obvious what a lack of low bass does to the music: low organ, drum, or tuba notes, for example, will be much weaker than they should be or missing altogether. Weakness of high overtones makes the music sound soft or muffled—lacking in natural sharpness and bite.

Peaks, a besetting sin of speakers, should be discussed along with high and low weakness, because design approaches to the two sets of problems usually are interdependent. Peaks in the bass lend the music a boomy, "one-note" quality; peaks in the mid-frequencies make it "honky" or hornlike; peaks in the highs make it too sharp, harsh, hard, or scratchy.

Distortion also contributes to boomy, false-sounding bass by adding harmonics—the artificial "doubling" of the fundamental frequency fed into the speaker coil, producing audible output one or even two octaves above the fundamental. And this is not the only kind of distortion that afflicts loudspeakers. The means for reducing distortion are as various as its causes, but the success of each depends in large part on how well integrated the overall design is. For example, larger magnet structures tend to reduce distortion by providing a firmer "grip" on the voice coil (that's one reason why so many speaker ads mention a "heavy magnet"), but a hefty magnet alone is by no means a guarantee that distortion will be low.

Always keep in mind that one grand "feature" does not a fine speaker make. Any high fidelity speaker is a very complex mechanism, and successful design means handling a hundred interacting factors. No matter how brilliantly the designer may handle some factors (or how brilliantly his ad writers may describe his handling), his failings elsewhere can be all too audible.

**In Search of Big Bass**

The output of a dynamic speaker tends to fall off in the low bass for several reasons. A cone of moderate size gradually loses its "grip" on the air as the frequency goes down the scale. This effect can be postponed by making the cone larger, but not eliminated within the audible range for a cone of any feasible size. It can be offset, too, by making the cone "pump" over a greater distance (its "excursion") for lower notes, and this is the approach taken in most of the better bass systems today. Speakers that can move very far have come to be known as "long-throw" types, meaning that the suspension they have allows the cone to move widely without significant restraint.

The question of the best cone size is fairly complex. Generally speaking a good bass speaker—often called a "woofer" or a bass "driver"—must be ten to twelve inches across, because of the air-gripping problem. Making the bass cone extremely large—drivers two feet across and even larger have been built—while it does improve the low-bass "air grip," raises other problems. Such speakers can be used for a narrow range of frequencies only, because they are likely to be poor at handling the mid-bass and higher frequencies. They are very expensive and take up a lot of room, especially if they require extra drivers to handle the mid-bass. For these and other reasons, it is more convenient to use only moderately big speakers with a greater throw.

One important reason why very big cones are not recommended for mid-bass and middles is "cone breakup," a general and most serious difficulty for all dynamic speakers. When a cone made of a thin, flexible material is pushed at its apex and held at the outer edge, it will tend to ripple and bend during vibration, rather than pulsate as a single surface. Such ripples introduce peaks into the music, giving it the false color of honk or harshness, or a tendency to cling to one particular note. Breakup is kept reasonably low in a good driver, but the larger the cone, the more difficult this is to do. It may prove impossible when the cone also is called on for mid-bass and middle frequencies.

Three other general facts about bass action in
cone speakers must be borne in mind. The first is the necessity for separating the bass sound produced by the back surface of the speaker from that produced by the front. These two tend to cancel each other if they mix, because they are "out of phase"—the cone obviously pushes the air in front while pulling that in back. So the air pressure is raised in front while it's being lowered at the back and vice versa. A speaker is said to be "baffled" or "in a baffle," when front and back waves are separated by the enclosure.

Another important fact is the "bass resonance." It is an inherent characteristic of every mechanical device having both mass and elasticity to have a resonance—a frequency of natural vibration. The whole-cone or bass resonance in a cone speaker is most important because, with minor amendment, it is the bottom of the speaker's response range. Below the resonance, speaker action falls off sharply. Unless remedial measures are applied, a note at the bass-resonance frequency will be exaggerated, boomy, and distorted. In typical cone speakers, the resonance usually is somewhere between about 25 and 150 Hz. The heavier the cone and voice coil, or the "floppier"—more yielding—the flexible suspension, the lower the resonance.

And finally, the box in which the speaker is mounted affects bass performance fundamentally, particularly in its effect on bass resonance, but in other ways too. In a comparatively small box the trapped air, pressing against the back of the cone, stiffens cone action and raises the resonance. This may be used in a positive way, as we'll see in a moment.

Let's run through the main dynamic bass systems now offered to the speaker buyer.

**Infinite baffle.** This is a very large box, or a wall with the speaker mounted in it, the back being open into the adjoining room. The idea is to give the energy from the back surface of the cone "infinite" space to radiate into, at the same time effectively preventing any mixing of the back wave with that from the front surface. For a twelve-inch speaker, such a box should have six to eight cubic feet of interior volume—the more the better. Sound-absorbing material inside the box helps to make it "neutral"; that is, prevents internal reflections that can "color" the sound. The result can be very good with a naturally excellent speaker, but the mounting as such does not substantially improve bass performance in the resonance region, as the next system does.

**Bass reflex or vented.** For a long time the most popular high fidelity bass speaker mounting, this one keeps coming back in one new form or another. Ducted-port or "phase-reversal" systems use this principle. In its simplest form an opening in the front of the box is dimensioned precisely so that the box becomes an open "tuned column" a little like an organ pipe. With the box tuned to the driver's bass resonance frequency, there are some good results. First, the resonance is thoroughly tamed—smoothed out, making tones near it solid and clear rather than boomy and distorted—and cone breakup is greatly reduced. Second, though the bass notes coming from the back of the speaker via the opening are out of phase with those from the front in the resonant-frequency range (and hence control the resonant peak), those a bit above this range are in phase as they come out of the port, so they reinforce the bass directly from the speaker.

When the bass reflex principle first "arrived" about thirty years ago, it made such an improvement in the bass that it seemed a miracle. But its
weakness is that, below the resonance, the response falls off even more rapidly than it does without the tuned box. Some of the newer systems are significantly better in this respect. In some speakers the duct is shaped in such a way as to act like a “velocity transformer” for reinforcement of the deep bass. (The speakers are called Venturi after the principle on which the design is based.) Some designers use an array of holes for the opening, which introduces an “air resistance” or filtering effect for additional smoothing. Others use a large vent covered by what looks like another speaker cone—often called a “passive radiator.” Its flexible edge design, similar to that of the woofer itself, allows this “seal” to vibrate in response to the motion of air within the box. But the physical properties of this otherwise undriven cone are chosen—again, according to a complex of interrelated variables—so that its “loading” will smooth response of the driven speaker in the resonance range, while its own motion will reinforce the sound from the driven speaker at other frequencies.

The meaning of all this for the prospective speaker buyer is that he must learn to listen critically to the low bass. When you shop take along an organ record with a passage that goes up and down the pedal notes, hitting all or most of them, not just one or two. (I like the Bach D minor Fugue, as recorded by Biggs on Columbia KM 30648, for this purpose.) This is vital for judging any bass system. Listen to the record on what you know is a superb system, noting that the pedal notes are all there, well differentiated and approximately equal in strength with no tendency to wide skips (octave jumps) in the scale. Try for the same result in any speaker you are considering.

Rear loading. In this design, also more than thirty years old, an internal tuned tube attached to the back of the speaker is crammed with sound-absorbing material. This does more smoothing, over a wider range, than the conventional bass reflex type.

A recent resurgence of the idea has borne interesting fruit (particularly among European manufacturers) in what are known as the “transmission-line” systems. Similar to bass-reflex designs in basic description, they use the port-and-duct system specifically as a way of loading the bass driver to control resonance properties, rather than to convert some of the back wave to front-radiated sound to “help” the front wave—a key aim of conventional bass-reflex designs. A correctly designed transmission line can produce very clean, tight bass.

Aperiodic. This very recent approach aims in a sense at the opposite of the bass reflex and is capable of putting excellent bass into small boxes. The objective is to produce a box-speaker combination that has no resonance in the bass at all, and fairly complex construction achieves this. Bass can be clean over a wide range.

Air suspension. This has become something close to the standard in the last decade and often is called acoustic suspension. Pioneered by Acoustic Research, it is used by dozens of speaker makers. The basic idea is simple: Using a speaker that is extremely floppy, for a very low bass resonance (say below 20 Hz), it is possible to use a relatively small box that raises the resonance to, say, 40 Hz. Advantage: The air in the box is now part of the “spring” in the cone. Over wide excursions, air is a much smoother spring than the plastic or paper suspensions used in dynamic speakers.

The result is extremely smooth, boomless response right down through the resonance and for some notes below. The air-suspension system revolutionized our expectations for bass that can be produced by boxes of three to four cubic feet and smaller. But the best air-suspension systems still are not perfect.

Slots, air couplers, and others. The pitfalls of going all out for just one big idea are devastatingly demonstrated by the remains of bass speaker systems dotted across the high fidelity landscape of the last several decades. We have had a parade of trick boxes that were going to bring hi-fi glory—enclosures with slits, slots, V-cuts, internal horns, “air couplers,” and a lot more. Survival is the test; careful listening is the audiophile’s way to assay survival value.

The horn. The horn is an idea that never dies. It has been used for music reproduction since Edison’s day and was used with loudspeakers at the very beginning of electrical reproduction.

A horn can be added to any dynamic speaker; it’s a question of making the throat (entry) big enough to accommodate the speaker. A horn does for a loudspeaker just what it does for a human voice: It provides a “grip” on a much larger volume of air than could be controlled without it and so greatly increases the volume of sound that any given effort will produce. As an engineer would say, the horn “matches the speaker to the air.” The horn is, in short, an acoustic transformer.

This means that the speaker cone has to work much less (move a much shorter distance) to produce loudness, which in turn means lower distortion. In addition it needs less power from the amplifier, also making for lower distortion. Further, correct design of the horn will tame the bass resonance of the speaker for a firm, clean sound.

But horns are scarce in high fidelity today, for two main reasons. Every efficient horn has a bass cutoff, a note in the bass below which practically no sound comes through. The frequency of this cutoff depends on the dimensions of the horn. To get the bottom low enough to reproduce the whole bass range down to, say, 40 Hz—the horn has to be huge: 12 to 14 feet across the mouth (outlet) and 10 to 12 feet long. Second, even above the cutoff frequency a horn imposes peaks and valleys that color the sound—to give it a “horn character.”
The awkward size of bass horns often has led to their being folded: wound back and forth within the speaker box and open at the bottom or back or sides. The most successful of the bass-horn systems over the years is the Klipsch corner-horn speaker, which uses the walls of the room as extensions of the folded horn to increase its effective size. This system has survived for so many years because it does produce very solid bass of tremendous power.

Even with the recent, and striking, advances in bass-speaker design, a certain minimum of size—cone size, box size, magnet size—is needed for the lowest bass. If you buy a very small speaker, one cubic foot, for example, don’t expect to hear the lowest one or two octaves. A very small speaker may be a valid choice if space and budget are limited, because music still can be enjoyable without that last octave, which is needed for only a handful of instruments and then only for the lower extreme of their ranges. A speaker that handles those extreme bass notes will have several times the size, and the price, of a one-footer.

The Trouble with Treble

The problems in high-frequency reproduction are, like those in the bass, getting good response at the extreme of its range and maintaining smoothness of response throughout the range. Peaks are especially distressing in the treble, because they make the music hard, sharp, offensive. And there is a new problem: directionality, or beaming, which is peculiar to the propagation of high frequencies.

Sound waves of about 500 Hz and below spread out almost equally in all directions, no matter how they are produced. But from about 2,000 Hz up, the sound tends to concentrate into a beam traveling straight out from the speaker and becoming progressively narrow as the frequency increases.

The aural effect of severe beaming of highs is this: The sound may be well balanced, with treble fully reproduced, for a listener directly in front of the speaker but may be seriously lacking in highs—muffled, dull—if he sits a little to one side. You can hear a distinct change in quality as you walk across the front of a beamy speaker.

There have been several remedies for beaming, and most of them can work well if properly handled. The smaller the cone, the less air beams at any given point in the scale; so very small “tweeters” (high-frequency drivers) are preferable on this count. Many systems use two or more tweeters pointed in different directions, which also can spread the highs. Everything else being equal, a dome tweeter has better “spread” than a cone. And a horn can be so shaped that it spreads the highs out widely.

Successful dynamic tweeters have taken a variety of forms. The intimate complexities of the design—cone materials, magnet design, and a score more—are more important than the over-all configuration in keeping peaks low. Among the better tweeters, however, a fairly high proportion have been of the dome type.

Horns can be used with special drivers for the treble range. They help to spread the sound horizontally but may have more coloration than the best open-cone tweeters available as alternatives at around the same prices. A sensible approach for the prospective buyer is careful listening with an awareness that strong highs aren’t necessarily pure highs.

Note that highs need spread only wide enough to cover the seating area, which means from about 90 to 150 degrees in most living rooms. If you hear roughly the same strength of highs wherever you sit, the design is a success on this score.

Great virtues have been claimed for omnidirectional speakers, which really means omnidirectional tweeters because the bass is omnidirectional in any case. There are many ways to achieve uniform propagation in all directions—in the horizontal plane at least—the most obvious probably being the use of separate tweeters facing in different directions. The highs projected toward the walls bounce back into the room a small fraction of a second behind the highs radiated directly from the
A number of recently introduced systems, like the Jans-Zen below, use electrostatic elements for higher frequencies plus conventional cone woofers. Full-range electrostatics must be relatively large in area and can look very much like the speaker at right—which is, however, the Magneplanar. It applies the electromagnetic principle to drive a large, flat diaphragm similar to that in a full-range electrostatic speaker.

A speaker. This design does spread the highs well in the room, but it does not, as some proponents imply, create a concert-hall effect by having some highs reach the listener later than the highs directly from the speaker. The sense of space we get in a concert hall is produced by reverberations, delayed many times as much as the bounced sound in a living room. It is purely a question of distance: An echo may have to travel 150 extra feet or more in a large concert hall before it gets to the listener; in a moderate-sized living room the delay path seldom is more than a few yards. The effect on the listener's perceptions is totally different.

**Nondynamic Speakers**

Speakers need not be electrodynamic, of course. So far most nondynamic speakers have been more successful in producing high fidelity sound in the treble range than at very low frequencies. **The electrostatic.** By far the best known “other” speaker is the electrostatic, which is almost as old as the dynamic. It has had spurts of commercial success, including some use in theaters, especially in Europe. But it occupied a relatively small corner of the high fidelity scene until the last several years. We now are seeing a renaissance of the electrostatic in very large speaker systems, almost entirely as a means of covering the treble.

The “motor” in an electrodynamic, as described earlier, uses the reaction between a current-carrying coil and a magnet. The motor in an electrostatic uses a different relation between electricity and mechanical force: The attraction and repulsion between two conductive members carry the high voltages. If the voltages on the two conductors have the same polarity, they are pushed apart; if the voltages have opposite polarity, the two are pulled toward each other. The forces involved are proportional to the electrical charges of the members.

In the electrostatic speaker one member can be a fixed metal grid, the other a flexible, metalized plastic membrane. The fixed member must have openings to allow passage of the sound generated by the moving one, and there may be fixed members on both sides of the moving one. If high voltage, rising and falling to represent the music, is applied to the plastic member, it will be alternately attracted to and repulsed from the fixed grid, in step with the electrical pattern. So the flexible member acts as a diaphragm. The grid or grids are polarized by a constant electrostatic charge for the fluctuating charges to “work against.”

The great advantage is that every point on the diaphragm is pushed equally, with no breakup like that in a conventional cone driven only at its apex. The diaphragm can be made to have very little mechanical resonance to further reduce peaks. Hence an electrostatic's sound can be extremely pure.

But the members have to be very close together if their electrostatic fields are to interact correctly, so
The ESS Air Motion Transformer has an accordion-pleated diaphragm (removed, foreground) with conductors running in folds. Large magnet structure (background) has pole pieces at center that focus magnetic field in conductors, alternately squeezing and opening pleats when alternating audio current is applied to it.

The diaphragm can't move far. Thus the bass is weak unless the diaphragm is very large—perhaps twenty square feet or more. For this reason only a few full-range (bass and treble) electrostats have lately had much success, despite their inherently low distortion. And those whose response extends into the deep bass generally are both large and expensive—over $1,000.

Electrostats are making more of an impact as the treble partners of cone bass speakers in a number of hybrid systems. The rationale of the hybrid is that you get the extreme purity of the electrostatic where it is needed most, in the mid-highs and highs, and the strength of the dynamic where that is needed, in the bass.

And it works well in a number of cases. Just keep in mind that the designer of such a system has to balance an unusual number of complex factors. Thus the fact that he is using the electrostatic-electrodynamic combination is not in itself a guarantee of excellence. It's rather the opposite, because more things can go wrong.

The Magneplanar. There is one type of speaker that closely resembles a full-range electrostatic without being one. The Magneplanar has long strip magnets within its panel-like construction, which is only an inch thick. The current from the amplifier follows a conductive path on a membrane comparable to the metalized plastic member in an electrostatic. But it is the interaction between the magnets and the magnetic field caused by the current in the conductive path (rather than electrostatic fields) that produces the necessary attract/repel action.

The design has more than mere physical resemblance in common with the big electrostatic panels, however. It also is relatively expensive and offers much the same virtues and limitations in terms of sound output. For example, the excursion distance is limited (for much the same reason as in electrostats), again requiring compensation by an increase in the total radiating area (which is, in fact, the reason for the physical resemblance).

The Air Motion Transformer. Just in the last year a radically different kind of tweeter has appeared, to general applause: the Heil Air Motion Transformer, named for its inventor and built by ESS. The diaphragm of the speaker has deep vertical folds; on the sides of the folds are metalized strips that are in a strong magnetic field. With the current going back and forth through the strips, alternate pleats move toward each other, squeezing the air alternately toward the front and toward the rear.

It works well; highs are notably strong and free of distortion. At this writing, the design has become known as a tweeter for use with cone dynamics for the lows, but a full-range unit is said to be in the planning stage.

Perhaps I should point out that, to the extent that both the Magneplanar and the Air Motion Transformer still operate on the principle of an alternating current passed through a fixed magnetic field, they are comparable to conventional drivers. In the Heil design it is essentially the driven membrane and the way this membrane moves the air in contact with it that are different.

The Walsh driver. Even more like the conventional cone speaker is the Walsh driver used in some of Ohm Acoustics' speakers and, in modified form, as a tweeter by Infinity Systems. In turning electrical energy into mechanical energy, in fact, the Walsh driver uses the same elements as a conventional cone: a voice coil moving in the field of the speaker's magnet and driving a cone whose outer edge normally is connected to the speaker's superstructure by a compliant, airtight ring. But there the similarity ends.

The Walsh driver radiates from what would be the back of a conventional cone, and the cone faces vertically, rather than out into the room. Sound is produced not by air "held" within the moving cone, but by shock waves (so to speak) that travel from its apex to its outer edge. The cone material is chosen so that these waves will move diagonally along the surface of the cone with a speed whose horizontal
vector is equal to the speed of sound moving in air; hence the wave in the cone stays in step with an ever-growing and ever-expanding cylindrically propagated sound wave in the air around the driver. The compliant edge serves more as damping to prevent the "shock wave" from reflecting back toward the apex (which would disrupt the neat formation of the cylindrical acoustic waves) than to allow the pumping motion inherent to a conventional woofer.

Ohm's speakers are large (and relatively expensive at present) and cover the full audible range, with the cone driven from the top. Infinity's tweeter is much smaller, is driven from below, and has a periphery that is unteminated except for damping material within the "mouth" of the cone—which doesn't function as its mouth, of course.

The sound from such a driver is said to be "coherent," meaning that the sound propagated in every direction is exactly in phase with that propagated in every other direction. This is not inherently true of conventional cones, whose back wave is out of phase with the front wave. But, as we've seen, the back wave can be thrown away (as it is in an infinite baffle system), suppressed (by damping material), or held back by what might be called an acoustic delay path (in a bass reflex system, for example) so that it emerges in phase with the front wave at certain frequencies and hence reinforces them.

In some systems—specifically, the Air Motion Transformer, the Magneplanar, and typical full-range electrostatics, as well as some "panel" speakers in which flat diaphragms are driven by conventional coil-and-magnet transducers—the sound radiated by the back of the speaker is identical to that from the front except in being out of phase with it. These are known as bi polar radiators. The sound from the back surface (half of the driver's total output) reflects from walls and furniture and back into the room, of course. What you hear will depend even more on the nature of the reflective surfaces with a bipolar speaker than with a conventional one.

It's a moot point, however, how the phase relationship between the front wave and the back wave will affect what you hear. Because of what is known as the "precedence effect," our perception of sound "locks onto" the direct radiation—which precedes the reflections, with their longer travel paths, in reaching the ear. Again, you must listen for yourself.

You must know what you're listening for, of course; and I hope this article will help you in that respect. With some practice you can train your ear to spot promising new directions and avoid dead ends in loudspeaker design. The general rules of testing speakers by ear are: have two or three recordings that are totally familiar (organ music and orchestra à la Strauss or Mahler are excellent); hear them on many kinds of speakers, including some of the very best; keep renewing your memory of how they sound. You will not only become expert, but also enjoy yourself in the process.

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Diagram from Ohm Acoustics indicates how Walsh driver works. Conventional magnet-and-coil driver (top) produces wave in cone, which in turn excites air in contact with it. As wave moves down cone (second and third diagrams) it stays synchronized with acoustic wavefront (dotted vertical lines), progressively reinforcing it.
In America, designers start with a goal—whether it’s a new concept in sound reproduction or merely a desire to beat the competition.

Probably no other component in the audio chain is subject to a mystique like that surrounding loudspeakers. The average audiophile may regard his cartridge or amplifier as an inanimate piece of hardware to be selected with little more care than in choosing a waffle iron or power lawnmower. But when it comes to loudspeakers, he’s more likely to make his choice with all the care of a concert pianist selecting his Steinway for the evening. For some men, choosing a loudspeaker is almost as complicated as choosing a mate.

Perhaps that explains why there are at least ninety manufacturers of component high fidelity loudspeaker systems hard at work filling the almost insatiable demand for more speakers in the U.S. Last year Americans bought some $255 million worth of loudspeakers, and the industry expects to do better this year. At an average price of $100 per speaker system, that works out to about one stereo pair per year for each eighty families in the country.

With so many companies producing speaker systems, it’s not at all surprising that there are differences in objective, basic philosophy, and technique as well as in the finished product. A physicist from Massachusetts Institute of Technology may start manufacturing loudspeakers to prove his theories about direct vs. reflected sound. A hi-fi dealer in southern California may start making speaker systems in the back of his shop because he thinks he can match the sound of a name brand at a fraction of the price. An audiophile on Long Island may start assembling speaker systems for friends who admire one he designed for himself. An audio engineer in southern New Jersey may simply want to see how good a speaker he can build for his own enjoyment.

All have different objectives, making generalization problematic. Particularly where new technology is involved (one thinks immediately of Ohm Acoustics and the Walsh driver, ESS and the Heil Air Motion Transformer, and similar projects), all rules of thumb go by the board. The loudspeaker industry has many fine craftsmen and more than a few visionaries, who may work in unique and even "unapproved" fashion.

But the vast majority of the speakers sold in this country are not the products of such offbeat efforts. Including both so-called private-label speakers—which account for a large and generally uninnovative portion of the market—and brand-name products, perhaps eighty per cent of the systems sold to-
day are of conventional design: bookshelf systems or somewhat larger models that are similar in basic type. These models are the bread and butter of the American loudspeaker industry, and it is primarily the manufacturers and designers of such systems that I investigated in preparing this article.

Who's a Manufacturer?

Not all of the ninety-odd companies in the business actually make speaker systems from the ground up. Only a handful stamp or cast the metal baskets that hold a woofer cone, make the cone itself, create the voice coil, and fabricate their own magnets. The majority buy parts from outside suppliers. In some cases the “manufacturer” operates nothing more than a woodworking shop, with a few employees to install woofers, tweeters, and crossover networks in boxes. A few manufacturers don’t even make the boxes but order them from a local cabinet shop. Some of the best names in the business buy tweeters from Peerless (a Danish supplier) or Matsushita, woofers from Jensen or Electro-Voice, and so on. Companies like CTS and Utah make drivers for other manufacturers and use only a small fraction of their output in their own branded systems.

Obviously some speaker companies have better facilities for designing and testing their products than others do. About twenty U.S. and foreign manufacturers have both scientifically designed listening rooms and their own anechoic chambers, permitting accurate evaluation of the systems they produce. In addition, another twenty or so have access to somebody else’s anechoic chamber—perhaps a chamber at a nearby university engineering school or at an independent testing organization, or one maintained by a supplier. Actually some anechoic chambers are available, for an hourly fee, to anyone who wishes to use them. To that extent, any speaker manufacturer can lay claim to having “his” anechoic chamber.

Sound vs. Sales

In theory each designer is after the best sound he can possibly get in his speakers. But is he really? And just how close is it possible to come to the ideal?

Once I started talking frankly to speaker manufacturers, I discovered that the obvious goals are by no means universally accepted. “We’re in business to sell loudspeakers,” said the president of a large company. “We design speakers that sell.” But in admitting that good sound is not the beginning and the end of loudspeaker design, he—and the other manufacturers I spoke to—declined to have his name, or that of his company, used in print.

One manufacturer of speakers that are sold under the “private” brands of several large audio chains in the East explained: “In order for a speaker to sell, it must sound exciting. The sound must excite the dealer, to persuade him to stock it in the first place: the salesman, so that he’ll push it; and the customer when he first hears it, so he’ll buy it.” Translated into performance terms, this means a bass that booms and a peak in the upper midrange.

“Most people who go into a store are impressed by lots of bass and a bright midrange, so that’s what we give them,” he continued. “The bass has to be reasonably clean, but we emphasize all we’ve got. Then we add a boost in the midrange to make those frequencies sound brighter.”

A small East Coast manufacturer of quality speakers said, “We live by reviews. We don’t have the money for lots of advertising, and we’re not in every store. So we have to depend on getting our products favorably reviewed by magazines.”

Then does he tailor his product to please the ears of the reviewers? “Oh absolutely,” he replied. “We read all of the reviews of other people’s speakers and compare them carefully with the products until we have a pretty good idea what kind of sound the reviewers like, and we try to supply it. Most critics want to hear lots of highs. If a speaker doesn’t have plenty of highs and isn’t able to disperse them reasonably broadly, it’ll draw bad reviews. I suppose you could say we’re designing our product to please a very small—but very discerning—group of listeners.

“Is that so terrible? After all, these are supposed to be the most carefully trained . . . ears in the country. They act as proxy ears for hundreds of thousands of others around this country.”

Although none of the speaker manufacturers I interviewed admitted doing so, several suggested that their competitors “soup up” speakers for the benefit of reviewers. “What Brand X sends out to the reviewers isn’t what they sell to their customers,” was the general feeling. “They hand-make a few units strictly for the critics.” (The interesting thing about the comments is that the same brand was never cited twice as an example.) Reviewers seem to have suspicions as well, though I know of no instance in which an equipment critic was able to prove that his sample had been tampered with.

More to the point is the manufacturer who produces a sensational-sounding speaker and wins raves from the critics but later changes the ingredients inside his box. Most good loudspeaker systems remain on the market for several years, during which time the ingredients used in them change—due to rising costs, unavailability of some parts, or perhaps an improvement by the designer. As a result, some audiophiles are discovering that, when they upgrade a stereo system to quadrophonics, the XYZ-4 bookshelf speakers they buy today don’t sound exactly like the XYZ-4s they bought in 1970.
Still another approach is taken by another producer of private-label loudspeakers. "There's my 'JBL L-100' model," he said, pointing out a system. "And here's our 'Dyna A-25.' Over there's our 'Advent.'"

I asked if he seriously meant to imply that each of these Brand X speakers was intended to compete directly with the name-brand model. "Listen for yourself," he suggested, setting up a direct comparison between his "Advent" and the real thing. "You'll hear the same bass qualities. And our midrange matches theirs, note for note. The only difference is that ours is $30 less."

Speaker design in this factory, he said, involves buying a best-selling speaker and pulling it apart to find out what's inside. He explained, "If the box measures 11 1/4 by 10 by 20 inches, we build a box 11 1/4 by 10 by 20. If there's a 10-inch woofer inside, we put in a 10-inch woofer. We match the tweeter and the over-all construction. Then we listen to see how close we came to the original sound." If there are differences, the president of the company (who is not an engineer) makes whatever alterations may be necessary to produce a fuller bass, tone down a squawky tweeter, or jack up a sagging midrange.

**Back to the Sounding Board**

But that still leaves a handful of companies that are serious about designing a musical instrument. Said the chief engineer for one of these: "Price always is a factor. I can make the most marvelous-sounding speaker you ever heard. But it'll cost you $1,200, and it may stand eight feet high. We're more likely to start out with the intention of making a speaker to sell for $99 or one of a certain size—or both. So I begin by trying to figure what ingredients I can put into a box that size or how much I can afford to put in. Because the laws of physics apply to loudspeaker design, once we've set the size of the box, a number of other decisions have been made for me. If it's a small box, I'm limited in how much bass I can get from it. If I use a speaker with a very heavy magnet, then I need a thicker wood for the box. And so on."

Actually the list of variables in speaker design is almost endless. A single loudspeaker in a simple bookshelf enclosure can produce satisfactory sound reproduction at very low cost, free from such problems as the need for crossover networks or matching of two or more speakers. But what type of speaker?

As any audiophile knows, it takes a large heavy cone moving comparatively slowly to provide rich, full bass. Such a speaker requires a fair amount of power to drive. And try as it might, it simply can't reproduce treble tones—those in the range from 4,500 Hz up. For that, you need a small, lightweight cone moving at high speed. The more conscientious
speaker designers shop as carefully for these ingredients as the chef of a fancy restaurant does for green vegetables or prime cuts of meat.

Using a two-way or three-way may simplify some problems of selection, but it also multiplies others. Drivers must be matched not only in frequency response, but in efficiency as well—and very carefully. A treble reproducer that's more efficient than the woofer can produce a forward or bright sound—considered desirable under some circumstances, undesirable under others. If the woofer’s response curve drops off before the tweeter really gets rolling, there’s a gap in the midrange. Adding a midrange driver may help, but as one designer commented, “Each time you introduce a crossover network, you face problems with phase and inter-modulation distortion.”

“Actually, some sixty-five per cent of all the music occurs in the midrange—roughly from 500 to 5,000 Hz,” observed another designer. “That’s why it’s so important to make sure that there are a minimum of complications here. Everybody hears it when you goof.”

He noted that most two-way systems cross over somewhere within this range. “That’s why I much prefer to design a three-way system. It avoids the problems,” he said.

He observed that the tweeter handles only about fifteen per cent of the music “and thus can have a low power-handling capacity. The woofer handles the remaining twenty per cent, but because the electromagnetic system and cone must work so much harder, they’re usually of heavier construction, with greater power-handling capability.”

Let’s suppose the designer has elected to build a three-way speaker in a standard bookshelf enclosure, approximately two cubic feet in size. His first attempt sounds fairly good in the midrange and treble, but the bass leaves something to be desired. This is a typical situation. According to the textbooks he can (1) use a bigger woofer, but that requires a bigger box; (2) use the same woofer in a bigger box; or (3) increase the stiffness and mass of the woofer cone. An alternate version of the third solution involves sealing the box so that the speaker cone rides on a cushion of air trapped inside. This is the principle used in the acoustic suspension loudspeaker to obtain good bass response from a small box.

Each of these options implies changes in cost as well as performance. If the enclosure size is to be increased, for example, woodworking costs go up and must be offset by a saving somewhere else. Perhaps using a different tweeter will result in a simpler crossover design without seriously altering performance. But if the selling price has been decided, the designer must juggle costs as well as electrical and acoustic performance factors while he works. And that juggling act is basically what loudspeaker design is all about.

Not all of the choices involve serious cost factors, however. In choosing just the right tweeter, for instance, the designer must consider that the harder the cone, the more efficient the speaker and the brighter the over-all sound seems to be. A cone that’s too hard sounds shrill (or is said by engineers to be crying). A soft cone has a tendency to absorb high frequencies, making them subtler and the tweeter less efficient. The trick is to find one that will match the sound in the rest of the system.

As we’ve noted previously, while some manufacturers actually produce their own drivers—or at least their own paper cones and suspensions—a large number buy ready-made tweeters, woofers, and crossover networks from outside suppliers. If many designs use the same driver—say, the Peerless tweeter—don’t the finished systems tend to sound alike? The answer, surprisingly, is no. One characteristic common to all bookshelf systems using Peerless tweeters is very wide treble dispersion. But some Peerless-equipped systems seem to have very bright highs, while others seem subdued. The reason: the balance achieved between each of the elements in the system affects its over-all sound. An overprominent woofer, for example, or a system in which the tweeter and midrange overlap, tends to make the highs seem softer and more diffuse.

“We’ve been using speakers from an outside supplier since we’ve been in business,” a producer of brand-name speakers told me. “They’re quality units, made by a quality source. But they differ in sound characteristics by as much as 1 to 2 dB. We match ours within ½ dB, so that a customer buying a pair won’t hear any difference between them. But another manufacturer buying from the same supplier and putting the same tweeter into a system similar to ours could get a different sound.”

When all is said, the biggest differences in the processes by which various speaker systems evolve stem from disparities between the premises on which the products are planned. Some designers begin with an abstract concept, like omnidirectional radiation, and explore the means toward this end with little (initial) regard to costs. Others begin with a successful system (say, the AR-3a) and look for ways of beating it at its own game, so to speak—perhaps by shaving $50 from the cost or by increasing its efficiency. Obviously the variations are endless.

Once the premise is established, there follows a complex process of selection, compromise, and evaluation to reconcile opposing forces of cost, physical design, and acoustic performance. Some designers establish and pursue the realization of their objectives with the perfectionism of an Antonio Stradivari. When a real craftsman is in charge, the result can indeed be compared to a fine violin; the surprising thing is that, even with an amateur or a cost accountant at the helm, the results are successful as often as they are.
Over the past few years HIGH FIDELITY has become increasingly aware that Japanese speaker designers have been using computers and statistical-analysis techniques in ways almost unheard-of in the West.

One paper from the Acoustic Research Laboratory of Matsushita Electric Industrial Co. Ltd. (Panasonic) in Osaka, for example, described the collection of data on several sound sources using a panel of ten girls from the factory (presumably chosen on the basis of hearing acuity) and applying a methodology worked out in previous tests with scores of subjects and sound sources. The girls were asked to make value judgments on each of three speakers, presented only two at a time, in terms of ten “bipolar” pairs of adjectives (bright/dark, clear/unclear, etc.) selected from among hundreds of Japanese adjectives on the basis of the previous tests. The girls’ preferences in each pair of sounds, and with respect to whatever adjective-pair they were asked to apply, were registered on punched tape and the results collated by computer.

While these particular tests concerned themselves primarily with the over-all sound of the speakers in question and were unrelated to technical performance characteristics as such, tests carried out at the Toshiba Research and Development Center sought to analyze actual performance factors as well as those associated with aural perception. An article published in 1971 by one member of the research team said the company’s total listening panel consisted of 644 persons, though in one group of tests only nine (presumably handpicked) members were used and the data for only the five “most reliable” were collated.

Closer to home, U.S. Pioneer has told us something of the research that it did on American audiophiles’ tastes and preferences before making some of the final design decisions on the R series of loudspeakers. This seemed particularly significant because of the snide attitude that some have taken toward the Japanese statistical approach, apparently believing that Japanese speakers were built “for Japanese factory girls—not American music lovers.”

Obviously a lot more is involved than simply whether a group of Japanese factory workers happens to like or dislike a given speaker. So for this special speaker section we have asked our Japanese correspondent to fill us in on just how and why manufacturers are using group listening tests and statistical analysis as design tools in Japan. He surveyed the field, and this is what he found.—ROBERT LONG

It would be no exaggeration to say that through the years fifty million Japanese have lent their ears to help their country’s audio industry improve its loudspeakers.

In Japan during the early days of hi-fi, when the term was misread as “high fee” at Tokyo’s famed Akihabara radio center, scores of open-front stores were offering raw speaker units (and separate enclosures) at “I-can-get-it-for-you-wholesale prices without the national commodity tax. Invariably these driver units were demonstrated at each stall through a horn enclosure made out of an upended soapbox with a speaker opening cut into the top, rather than the front. In this way, would-be purchasers could compare the sound of different brands as the retailer placed each unit over the hole, with the cone looking into the box.

In upgrading to the high fidelity speaker system that we know today, it became obvious to the Japanese manufacturers that the Akihabara soapbox

by Hideo Eguchi

In Japan, a listening panel often decides on the final sound.
could no longer be used for consumer listening tests. But it has been possible, from the beginning, to classify Japanese manufacturers of high fidelity speaker units and systems into several highly competitive groups. And, as it happens, these classifications are closely related to the way the manufacturers use statistical analysis today and to the extent to which they incorporate the results of group consumer listening tests into commercial design.

The Specialists.

The most competitive group consists of the manufacturers who first established themselves as mass producers of loudspeakers. Among them are Pioneer and Onkyo, which is now a Toshiba subsidiary. Both companies have helped put group listening tests to direct use in high fidelity speaker system design.

Pioneer makes constant use of three distinct listening groups in evaluating the cost-performance of each new prototype. "Blindfold" tests pit two competitive brands of speaker system (typically, American Brand X and Japanese Brand A) against Pioneer's own, using each of the three listening groups. In addition, Pioneer uses up to three different sources of sound (perhaps a phonograph record, a music tape, and a live performance) for comparison. There also are three kinds of music used: say, symphonic, international popular, and Japanese rock.

The first listening group is usually composed of Japanese consumers whose names are listed at the Pioneer Audio Specialty Stores (PASS) as buyers of the manufacturer's products. The second group includes interested Japanese distributors and retailers of the company's high fidelity speaker systems. Last but not least, Pioneer has its own listening committee of twelve or thirteen members representing all sections of its speaker manufacturing and marketing divisions. The hearing characteristics of each member of the committee are analyzed and the information used for evaluating the results of tests in conjunction with all other technical data. The consumer-group listening tests usually are conducted in a hotel room whose acoustics have been measured.

The Giants.

At the start of the high fidelity boom in Japan (the Japan Audio Society held its first annual fair in 1952), loudspeaker manufacturers found themselves competing against household electrical appliance manufacturers, including Matsushita (National/Panasonic), Mitsubishi (MGA), Sanyo, Sharp, Toshiba, and—more recently—Hitachi.

Generally speaking, the electrical giants became involved in the manufacture of high fidelity speakers because they already produced audio equipment for the broadcasting industry. The heavy electrical manufacturers like Hitachi, Mitsubishi, and Toshiba have been working with the General Research Laboratory of the Nippon Hoso Kyokai (NHK)—Japan's counterpart of the British Broadcasting Corporation (BBC)—in the field of sound reproduction. They maintain central research laboratories equipped with sophisticated testing apparatus.

These manufacturers have greatly expanded their mailing lists of consumers available for group listening tests, while NHK maintains a list of close to 25,000,000 households paying the mandatory radio/TV receiving fee. The light electrical manufacturers like Matsushita, Sanyo, and Sharp have a firmly established place in the consumer market through their sales of major appliances and TV receivers.

Besides conducting consumer-group listening tests, the electrical manufacturers attract potential buyers of high fidelity speaker systems through their plush showrooms, where the products can be tested on the spot by the visitor. These showrooms serve as a source of statistical data. In terms of pure numbers, the Technics showroom in the Ginza Core building draws up to 25,000 visitors daily.

...And the In-Betweens

The speaker specialists and the electrical giants are, however, merely the extremes; there are many other companies between these extremes. Some started out as manufacturers of other components.

JVC is one example. In its audio research laboratory a computerized "sound quality evaluation system" records the data derived from blindfold listening tests by three separate groups. One listening panel includes thirty professionals; another is made up of twenty audio specialty dealers; the third comprises at least twelve consumers, though it also draws on JVC employees at the Yamato plant, where the lab is located.

Each of the twelve seats in the JVC listening room, whose acoustics are accurately known, is equipped with a pushbutton device; each listener can indicate his reaction to the sound quality of the speaker system under test. Thus the results of each phase of testing is immediately recorded on punched tape.

Nippon Columbia (best known to Japanese audiophiles under its Denon brand name) takes quite a different approach. It has long been engaged in the production of loudspeakers, but it does not use consumers in its group listening tests. Members of the company's recording division—as well as the design and production staff—monitor
prototypes of its high fidelity speaker systems. Nippon Columbia does not believe that laymen can contribute significantly to the design of its speakers. It says that typical rooms—either Japanese or American—do not provide an appropriate environment for speaker tests. Even though high fidelity systems may be designed to match the acoustics of such rooms. Comparisons of speaker systems in consumer group tests set up by distributors and retailers in “typical” rooms certainly cannot be considered objective, the company adds.

Though both JVC and Nippon Columbia today operate as subsidiaries of giant parents—Matsushita and Hitachi respectively—both carry out their loudspeaker programs independently. The engineers (understandably) prefer charting their own courses; but it should be pointed out that the objectives of the relatively small and specialized subsidiaries are not necessarily consistent with those of the giant, mass-market-oriented parents.

Competing against the Japanese manufacturers who started out with loudspeakers, the electrical giants, the audio-sentiy manufacturers, and the two major phonograph record/music tape producers are at least two others: namely, Yamaha and Sony. The Yamaha brand of Nippon Gakki, the world’s largest piano manufacturer and Japanese exporter/importer of musical instruments, was associated in the initial days of high fidelity with sets assembled from the leading brands of audio components. Yamaha’s consumer-group listening tests have concentrated on the tastes of Japanese music lovers rather than dyed-in-the-wool audiophiles. But with Yamaha’s unusual promotions at recent All-Japan Audio Fairs, where it has used two types of listening rooms, and its growing line of quality components, this situation is changing.

In testing its prototypes, Sony discovered that the reactions of consumer groups can be misleading because of the myriad subjective factors involved. Its “consumer group” for its listening tests, therefore, consists of employees, who can readily be checked out and replaced in the event that they prove to be unsuitable. Sony believes the consumer tests held by some of its competitors are more or less publicity stunts, with little or no technical value to the designer of high fidelity speaker systems. While its own designers believe there is room for further development of speaker systems, they are confident that such improvements can be made through careful evaluation of data derived from technical experiments and listening tests in the lab. Incidentally Foster—a name long associated with speakers in Japan and now a Sony subsidiary—is conducting separate consumer tests under its new brand name, Fostex.

Generally speaking, however, the use of statistical analysis in determining criteria of merit is of greater importance to those Japanese speaker manufacturers that are interested in capturing a broader and bigger domestic market for their products, and there is some question whether such an approach would be of equal use in exports.

Another Japanese manufacturing group has been producing speakers and drivers for U.S. audio-store chains and mail-order houses for sale under their own brand names. Manufacturers in this, the so-called OEM business, tend to “design” speakers and enclosures by listening to U.S. brands instead of evaluating them through purely technical means. These listening experts are compared with Japanese tea and wine tasters, and their number is a closely guarded secret. Not only are they reputed to identify each particular brand, but they can also presumably “taste” the kind of material used for the cone and “smell” the species of wood for the enclosure.

The Meaning of the Tests

Basically, therefore, the “ear, not gear” approach is common in different ways to all Japanese manufacturing groups. Where the group listening tests are used—and depending on the outcome of those tests—it may take up to two years before a prototype is finally approved for manufacture and/or for export. In certain cases, prototypes are made available to audio specialists for individual testing. For example, JVC distributes up to thirty samples for such testing tests. Other Japanese manufacturers invite audiophiles, picked on a random-sampling basis, to try out new models a few months before they are marketed. A questionnaire comes with each sample speaker system, and the replies usually are evaluated by the designer and other personnel.

Speakers have improved to the point where, some believe, the residual distortion in the system cannot immediately be detected by group listening.
tests. One Japanese audio specialist recently ventured the opinion that a really fine modern speaker system will reveal any distortion in the amplifier; a correctly matched speaker will sound distorted, for example, when a transistorized power amp driving it is unable to handle short, sudden peaks.

Although it may be of little value to conduct group listening tests for harmonic or other distortion in a high fidelity speaker system, or for its frequency response from various listening positions, such tests have been found essential for manufacturing products to suit the musical tastes, financial situations, and living quarters of different consumer groups. Such obvious differences cannot readily be ascertained by laboratory test equipment alone. Broadly speaking, Japanese speaker manufacturers are primarily interested in producing the most accurate possible speakers at any given price level; at the same time they actually are turning to models tailored to the immediate needs and expressed preferences of the music lover. In this respect, statistical analysis as a design technique probably will be extended in Japan to other items of audio equipment.

The group listening tests also take into account the important factor of the listening room. At the JVC and Sony audio research labs, there are Japanese-style and American/European listening rooms as well as music rooms for rock groups and studios for classical music. Modern Japanese houses and apartments of ferroconcrete construction present new acoustical problems to the speaker designer; the rooms often are cluttered with reflective objects and, by Western standards, are comparatively small. The traditional Japanese room has plaster-covered walls and wooden ceilings and thick straw mats covering the wooden floor. The walls also have sliding doors framing panels of thin glass or paper. There is no furniture to speak of. Consequently, the older Japanese audiophiles, many of them doctors or musicians, are used to listening in a comparatively "dead" room, while the younger Japanese music lovers have come to expect more of a live room sound.

Thus, in using statistical analysis to determine criteria of merit, a Japanese speaker designer still must make two distinctly different evaluations. He is aware, too, that the Japanese manufacturers face rising competition from American and European speakers, since these may tend to sound better in the new Japanese homes—apart from their highly competitive cost performance. So although the Japanese speaker designers have the most sophisticated facilities for testing their products and the greatest number of "guinea pigs" for their statistical analyses, these techniques by no means supply all of the guideposts necessary in determining the directions they must take.

This report may reinforce the minds of some American readers the image of the Mysterious Orient. Obviously there are many marked differences between Japanese and American practice in both the design and the marketing of high fidelity products. Does this mean that there is a Mysterious-Oriental sound in speakers in the same sense that one can talk of the New England sound in bookshelf speakers or a West Coast sound in speakers of relatively high efficiency? We think not. As Mr. Eguchi's report makes plain, there is no unanimity of approach among Japanese speaker manufacturers, and even superficially similar means can be used for strikingly different purposes. And our experience of Japanese speakers themselves, while limited to export models, of course, confirms that each should be taken on its own merits.

There is one notable parallel between some American speaker designs (as explained by Mr. Angus in his article) and some Japanese designs (the Eguchi report): the attempt to tailor the sound to regional or national tastes. But American companies have not adopted the consumer-testing approach for that purpose. Is that approach, as the spokesman for one Japanese manufacturer said, largely a question of "publicity stunts"? The companies that use the approach have indeed demonstrated their awareness of the publicity value of these tests. At the same time the tests provide the manufacturers who conduct them with valuable information about the way in which typical listeners actually perceive the sounds they hear—why measurably similar speakers don't necessarily sound the same and why listeners can disagree so sharply about the relative merits of some loudspeaker traits or designs.

The fact that our patterns of perception are only imperfectly understood helps foster the mystique surrounding loudspeaker design referred to by Mr. Angus. It puts a premium on the "golden-eared expert" in loudspeaker design—not because his hearing is necessarily more accurate than that of others, but because his perceptions lead him to design speakers that will satisfy other users. In this sense, loudspeaker design remains—as it has been all along—more of an art than a science. Perhaps the Japanese will change that.—R.L.
Columbia’s Black Composers Series

The four-disc initial release features a wide variety of worthwhile music, superbly performed and recorded.

by Kenneth Furie

Mixing sociology and art is a risky business, so I approached the initial release in Columbia’s Black Composers Series, a joint venture with the Afro-American Music Opportunities Association, with no little trepidation. Does a piece of music warrant attention merely because it was written by a black?

The question remains, but the quality of the music on these four discs renders it inoperative. Everything here deserved to be recorded. Everything here would provide a welcome change of pace on our concert programs. And at least two composers, George Walker and Roque Cordero, are represented by works that belong in the standard modern repertory. The variety and consistent interest of these offerings bode well for the future; Columbia and AAMOA project an average of four discs annually over a five-year period.

Equally important, Columbia has committed itself to the best possible presentation of the music. The project’s artistic director, Paul Freeman, conductor-in-residence of the Detroit Symphony and principal guest conductor of the Helsinki Philharmonic, is a first-rate conductor (one notes with anticipation the jacket indication that he will be recording other repertory for Columbia), and he has been given excellent soloists and two first-rate orchestras (the London Symphony and the Detroit Symphony).

Any unfamiliar piece deserves to be heard under optimal conditions, and it is particularly encouraging to see a fine American orchestra used for this purpose rather than third-rate European ones. The use of orchestras of this caliber is made possible largely by foundation or other financing to cover personnel costs. Next year, in addition to these orchestras, Freeman will make a disc with the Helsinki Philharmonic and, he hopes, another with the Baltimore Symphony.

The four works by the Chévalier de Saint-Georges (1745–99), Guadeloupe-born but an adopted Parisian, were written between 1773 and 1782. They’re tuneful and engagingly direct, with an unmistakably Gallic flow and grace, and with little evidence of significant stylistic evolution in that decade. The earliest of these works (the ten-minute String Quartet, Op. 1, No. 1) and the latest (the fifteen-minute Symphonie Concertante, Op. 13) are in two-movement form: a moderately elaborate sonata movement followed by a short rondo. The fifteen-minute Symphony No. 1 has three nearly equal movements; but the first movement here has only a rudimentary development section—with the repeat observed, the movement seems virtually all exposition.

The predictability of key relationships and the almost invariable lodging of melody in the first violins place all three symphonic works at the beginning of the classical...
The excerpt from Saint-Georges' opera *Ernestine*, sumptuously sung by Faye Robinson, is more baroque than classical: an accompanied recitative followed by a da capo aria in which the heroine laments her separation from her beloved. Ms. Robinson's French, alas, is rarely intelligible, and Columbia has provided neither text nor translation.

As heard on the second disc, the American William Grant Still (born in 1895, and now living in Los Angeles) and the Englishman Samuel Coleridge-Taylor (1875-1912) share a great professional skill in using melody, harmony, rhythm, and instrumental color for crowd-pleasing effect. Still's twenty-five-minute Afro-American Symphony, written in 1930 and revised in 1969, makes up in color and approachability what it lacks in structural interest; this is, by the way, the only work in the lot that makes conscious use of "black" musical materials. Like the large-scale works on the two later discs, it benefits from an absolutely stunning performance and recording. Tenor William Brown is heard to good effect in the vocal works, and his clear English pronunciation makes the omission of texts less damaging than in the Saint-Georges scene.

The third disc offers one major work each by two major contemporary American composers, Ulysses Kay (born in 1917) and George Walker (born in 1922). Kay's name is, of course, the most familiar in the batch, and he has been recorded a number of times—never, however, in a work of such substance and in such a performance as this 1966 *Markings*, inspired by the posthumous Dag Hammarskjöld book. While uncomplicated in structure and development technique, the nineteen-minute work is imaginatively conceived and scored, though Kay seems to have heard The Firebird a couple of times too often.

Better still is Walker's seventeen-minute trombone concerto (1957), a tremendous contribution to the meager trombone literature, a bold virtuoso vehicle of considerable melodic and rhythmic power that speaks with a deeply personal voice. The concluding Allegro is a special delight. According to the liner notes, Walker, since 1970 on the Rutgers faculty, has developed substantially since this work. Further exploration of his output rates high priority.

Finally, the Panamanian Roque Cordero (born in

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**behind the scenes**

**The Detroit Symphony**

**Returns to the Microphones**

At a time when American symphony orchestras are recording less and less, the Detroit Symphony is recording again—after a silence of thirteen years. Last November, Columbia Records producer Jay David Saks, engineer Bud Graham, and a battery of electronic gear settled into Ford Auditorium, the orchestra's home, to tape two works by the Panamanian composer Roque Cordero for Columbia's Black Composers Series. Graham had scouted the hall the preceding April, with the help of Paul Freeman, the orchestra's conductor-in-residence and artistic director of the series. The fruit of his labors—a forest of eighteen mikes—was a novelty to the musicians, whose last recordings were made in the days of conductor Paul Paray when stereo was coming into its own.

The orchestra was placed far forward on the stage platform, with a newly constructed shell behind it to deflect sound. The basses were snugged in close behind the cellos; the percussion, in three groups, encircled the periphery of the shell, with each group separately miked for more distinct pickup.

The first two movements of Cordero's violin concerto were scheduled for the three-hour 9:00 a.m. session, the final movement and the Eight *Miniatures for Small Orchestra* for the 5:00 p.m. session. The major problem to be solved before recording was placement of soloist Sanford Allen and his mike so that the orchestra wouldn't bleed into the soloist's pickup. After experimentation it was considered best to have Allen at the conductor's left, facing the orchestra rather than with his back to it as in concert. Some producers prefer to isolate a soloist for recording, but Saks feels that quadrophonic recording benefits from the natural mix of orchestra and soloist.

When final tests checked out, recording began. Except for a loose mike connection, which took some searching out, the morning session ran smoothly. The evening session, however, provided high drama.

The violin concerto was completed without incident in the first hour. With an hour of recording time left, four of the Eight *Miniatures* had been completed and the test take for the fifth just approved when Saks heard an unscheduled hum. He suggested the musicians break a little early to afford him search-and-destroy time. With overtime looming—in half-hour chunks at about $1,200 each—Freeman was concerned. Closed-circuit conversation flew back and forth between the conductor on the podium and the producer in the green room, converted into a recording booth for the sessions.

Freeman maintained that, in his experience, more is accomplished at the end of a session, when tension and concentration are maximized by the impending deadline. It was decided to forge ahead and try to avoid overtime. As the final chord faded away, Freeman looked at Saks with an expression of relief. Time and the music were running neck and neck; in a photo finish, the music had won by a sweep of the second hand.

"Gentlemen and ladies, bravo!" Saks exclaimed. "Bravo, maestro!"

JEFFREY K. CHASE
1917) deservedly gets a disc to himself. The violin concerto, completed in 1962 with the help of a Koussevitzky Foundation commission, is a major discovery. Loosely serial, it blends the textures and techniques of Berg and Shostakovich with a strongly individual lyric sense and rhythmic vitality. The result is an immediately rewarding piece of great integrity. Cordero’s writing for strings is especially idiomatic: He makes excellent use of the contrast between their ability to project the most angular rhythmic motifs and their role as the orchestra’s legato voices par excellence. The concerto plainly belongs in the regular repertory.

As indicated, the performances are consistently strong. The Juilliard men dig into the Saint-Georges quartet with relish—if also less then flawless intonation. In the other Saint-Georges works, Freeman shows a sure grasp of the classical style: rock-steady, pointed rhythms and clear orchestral textures. The large-scale works (the Afro-American Symphony, Markings, and the two concertos) are beautifully controlled and projected.

In addition to the two fine singers, there are superb instrumental soloists: Sanford Allen of the New York Philharmonic in the Cordero violin concerto (I assume this is his first solo recording); Denis Wick, the LSO’s sensational principal trombonist, in the Walker concerto; violinists Miriam Fried and Jaime Laredo in the Saint-Georges symphonie concertante. The sound is similarly first-rate. One fringe benefit of Columbia’s London recordings is the sure hand of producer Paul Myers.

Each of these discs is, in its own way, highly recommended, and I urge you at the very least to hear the Walker and Cordero pieces. Since Columbia and AAMOA will not repeat any composers from this first year until at least the third year, we face a long wait for more of their work—unless someone else sees fit to take a look at these enormously talented composers.


**KAY**: Markings. **WALKER**: Concerto for Trombone and Orchestra. Denis Wick, trombone (in the Walker); London Symphony Orchestra, Paul Freeman, cond. [Paul Myers, prod.] COLUMBIA M 32783, $5.98.

**CORDERO**: Concerto for Violin and Orchestra; Eight Miniatures for Small Orchestra. Sanford Allen, violin (in the concerto); Detroit Symphony Orchestra, Paul Freeman, cond. [Jay David Saks, prod.] COLUMBIA M 32784, $5.98.

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by Dale Harris

**After Fifteen Years, a New Mefistofele**

Norman Treigle sings the title role in Angel’s new recording of Boito’s eccentric opera.

*Mefistofele* had a difficult birth. Originally performed at La Scala on March 5, 1868, it was howled down by the first-night audience and withdrawn after only one further hearing—though this, because of the opera’s length, was spread over two nights. After undergoing extensive and painfully slow revisions, including abbreviation, the work was presented anew in Bologna on October 5, 1875, and further revised in Venice a year later. This time it was a success. In 1881 it returned triumphantly to La Scala.
Scalia. Ever since then Mefistofele has been a staple of the operatic repertory in Italy.

Outside Italy Mefistofele has fared less well. Though readily mounted for singers on the order of Chaliapin and Didur at international houses like the Met and Covent Garden, the opera has not survived the departure of such stars from the scene. Neither the Mei nor Covent Garden has heard Mefistofele since 1926.

All the more surprising, then, that the New York City Opera should have made so great an impression with the work in 1969. The enormous success of this production—both critical and financial—was not solely attributable to Norman Treigle's effectiveness in the title role. Part was due to a flashily eclectic production by Tito Capobianco and part to the desire felt by many at that time to use the City Opera as a cudgel against the Metropolitan Opera, then at a nadir of its artistic reputation. However, since Treigle's departure from its roster, the City Opera has not revived Mefistofele.

Boito's opera, though no masterpiece, is certainly worth hearing. The opening scene with its cosmic vistas, its majestic sonorities, and its undiminished harmonic power never fails in its effect. Nor does the prison scene, including as it does Margherita's lament, "L'altra notte in fondo al mare," and her affectingly reiterated duet with Faust, "Loniano, loniano." In the hands of a first-class tenor "Dai campi, dai prati," and "Giunto sul passo estremo" can be eloquent. In addition to his appearance in the Prologue, the bass has two further opportunities for striking musical characterization in "Son lo spirito che nega" and "Ecco il mondo."

The rest, however, is much less convincing. The Easter Sunday crowd scenes are little more than diligently put together; the garden quartet is clumsy; the Witches' Sabbath no less banal in inspiration than its counterpart in Gounod's Faust but not half as skillful or enjoyable. Act IV, the Night of the Classical Sabbath, is a trivial conception, the aural equivalent of an Alma-Tadema canvas.

But the surprise of Mefistofele is not so much that Boito was only an intermittently capable composer as that he revealed such dramaturgical ineptness. It is hard to understand how the intentions of so masterly a librettist—Boito was responsible for the texts of Otello and Falstaff, as well as the immensely professional Gioconda—could have become so muddled on this occasion.

Nearly two-thirds of Mefistofele deals with Faust's search for sensual gratification and his betrayal of Margherita. The brief Grecian act, which follows upon Margherita's death, confuses everything that goes before by suggesting a parallel search for ideal love. In the Epilogue, in fact, Faust declares that both have proved unsatisfactory: Reality has brought suffering, and the Ideal was a dream. Yet only the former is dramatized. The latter is presented statically, like a decorative vignette. To represent Faust's aspiration toward the Transcendent, Boito offers only a tableau whose principal feature is Helen of Troy warbling a barcarolle-like tune that might have come from Rossini's Sins of Old Age.

Despite the starry names of Monserrat Caballé and Plácido Domingo, top billing on this recording goes to Norman Treigle. Indeed, it is not unreasonable to suppose that the very idea of a new Mefistofele stems from Treigle's éclat in the title role. But what comes across on disc is very different from what one experiences in the theater, and a lot of people may well be disappointed with this album.

I can testify to the vividness of his physical presence and to the large part played in his stage success by his ceaseless posturings and capers. Unfortunately, the voice by itself does not convey very much of interest. Like Chaliapin, he is prepared to sacrifice musical fidelity for dramatic forcefulness, to ignore ornaments, to change note values, alter the pitch, repeat words for emphasis. Yet in Treigle's case the results are unconvincing. Unlike Chaliapin, he hasn't enough voice to give musical validity to his histrionic intentions.

On a recent HMV album (RLS 710)—available at certain dealers specializing in imports—Chaliapin can be heard in excerpts from Mefistofele recorded in 1926 at a Covent Garden performance. The difference is instructive. At fifty-three Chaliapin had a plenitude of voice that enabled him to color his phrases at will, to play with dynamics, to suggest the vast resources at the command of God's adversary. Treigle's dry, unresponsive timbre undercuts his power. In the Brocken scene, when he is about to smash the globe, all he can bring to the climax of Mefistofele's invective against man is extra throatiness.

Treigle's colleagues are in greater vocal command. Domingo, above all, sings with sweetness and fervor, though Faust is a role he has not yet made his own. There is a great deal of vocal pleasure in this performance but not very much in the way of insight. Caballé does not have the tonal resources to sound the depths of Margherita's agony in "L'altra notte," but she is appropriately girlish in the garden scene and is both exquisite and touching in the final duet with Faust.

The rest of the cast is good, especially Thomas Allen, who enunciates the role of Wagner splendidly. The youthful Josella Ligi (Helen of Troy) sounds like a genuine find. Apart from a little tightness at the top, her voice is warm and lustrous; she makes an immediate sensuous impact. The chorus is very satisfactory, though the boy trebles are rather pallid, even for cherubim.

Julius Rudel, like Treigle a veteran of the New York City Opera production, obtains good playing from the London Symphony Orchestra but never really takes hold of the score. His rhythms in particular tend to flabbiness, and this diminishes the power of Boito's climaxes, from the finale of the Prologue to Margherita's "Spunta l'aurora." The sound is very rich but somewhat overresonant for my taste.

Despite its age, London's complete Mefistofele still sounds excellent. In addition, Tullio Serafin is greatly preferable to Rudel. Under Serafin the music is both lively and poetic. He even manages to bring a certain awesomeness to the Witches' Sabbath. Cesare Siepi, a more accurate Mefistofele than Treigle, is also more vocally expressive and therefore dramatic. Renata Tebaldi is in quite good form here, though she often sounds overdriven. The real drawback, however, is Mario del Monaco, who, unremittingly brazen throughout, quickly grows wearisome.

By comparison Giuseppe di Stefano, who began the complete recording but was replaced by Del Monaco, is very pleasing on the recently released disc of excerpts. Despite the fact that the top of his voice is in parlous con-
dition here (there are a couple of disastrously flat Bs). Di Stefano sings with real sensitivity. Tebaldi, not having to keep up with Del Monaco's insistent manner, is better than on the complete recording, being more varied and tender. Nicolai Ghiaurov's excerpts disc concentrates on the devil's share in the proceedings (the Prologue ends after his "Ave Signor!") and does so to great effect. Unfortunately, the supporting Faust of Franco Tagliavini is not very good, and the conducting of Silvio Varviso is weak.

There are texts and translations for both complete performances.

**BOITO: Mefistofele.**

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Wandsworth School Boys' Choir, Ambrosian Opera Chorus; London Symphony Orchestra, Julius Rudel, cond. [John Mordle, prod.] Angel SCLX 3806, $18.98 (three discs).

**Comparison—complete opera:**

Slepi, Del Monaco, Tebaldi, Serafín/Santa Cecilia

**Comparison—excerpts:**

Slepi, Di Stefano, Tebaldi, Serafín/Santa Cecilia

Ghiaurov, Tagliavini, Varviso/Rome Opera

---

Aloys and Alfons Kontarsky—dispelling forever the idea that Debussy and Ravel require weightless interpretations.

**by Royal S. Brown**

**An Unfamiliar View of Debussy and Ravel**

The Kontarsky brothers give "well-nigh perfect" performances of the four-hand piano music for DG.

**EXCEPT FOR** the miserably uninformative and inaccurate liner notes, this new album is a major addition to the catalogue. Not only does it feature beautifully recorded and well-nigh perfectly performed versions of such familiar four-hand piano works as Debussy's *Petite suite* and *En blanc et noir* and Ravel's *Ma Mere l'Oye*, it also offers some rarities, either in the form of seldom-heard arrangements of often-heard works (Ravel's *Rapsodie espagnole*, for example) or in the form of works you almost never hear in any version.

Who, for instance, would even associate the word "symphony" with the name Debussy? Yet one of Debussy's earliest composition attempts was a "Symphony in B flat" (1890), sketched out for piano duet (not two pianos, as indicated on the DG jacket) but intended for an orchestration that never materialized. As might be ex-
Chords (based around the five-note theme) whose diacritic polyrhythmic and polytonal structures. This is interrupted by a second part in Debussy-esque parallel chords (based around the five-note theme) whose simplicity is the antithesis of the first part's complexity. This two-minute miniature is a rare Ravel gem with facets and reflections of unusual beauty and hue.

Another fascinating Ravel obscurity is the Entire deux cloches (1896), the second part of a two-piano work entitled Les Sites auriculaires. Here Ravel exploits the piano sonorities for all they are worth in order to suggest variations of bells chiming; and in the spectacular ending—whose dynamism is captured with incredible sonorous élan by the Kontarskys—it is not difficult to see the point of departure that led to some of the vast and revolutionary expanses of pianistic sound exploited by Olivier Messiaen.

The first of the two Sites auriculaires can be heard as the Habañera of the famous Rapsodie espagnole. Of course, the Rapsodie is just not the same piece without the lush orchestral colors Ravel devised for its off-shifting moods. But I doubt that many composers could have maintained as much of the color as Ravel did in the transcription without hopelessly weighing the work down in the density and clutter to which the two-piano idiom is highly susceptible. In the two-piano version, in fact, the listener is able to feel the movement of the infectious dance rhythms all the more strongly because the rhythms do not shift from timbre to timbre, an asset clearly brought out in the Kontarskys' remarkably clear and vivacious performance.

Much the same can be said of Debussy's Marche écossaise (1891), whose orchestral version represents one of his most neglected minor masterpieces. There is probably less justification for Ravel's de-orchestration of Debussy's Prélude à l'après-midi d'un faune (the liner notes imply that this is Debussy's original version of the work, which just is not true), although, as I pointed out in my February 1974 review of the Eden/Tamir rendition (London CS 6754), it is far more effective than it probably should be. And I much prefer the Kontarskys' more transparent and atmospheric interpretation to the romanticized approach of Eden and Tamir.

On the other hand, I have always liked Ravel's piano-duet version of Ma Mere l'Oye much better than the orchestration. Nothing could be more simple or achingly evocative of the beauty of childhood than the opening Pavane, with its mysterious chromatic motive in the accompaniment; or Tom Thumb's wistful melody above the quiet, spiraling parallel thirds; or Beauty's Satie-esque waltz that later combines with Beast's motive in a miraculous unity that only music can communicate in so total a fashion.

The remaining Debussy pieces all reflect to one degree or another the aesthetic preoccupations that helped him expand musical frontiers. The Petite suite, written in 1888 and later orchestrated by Henri Büsser, seems like so many Debussy compositions to have been inspired by the simplest forms of movement—movement frequently frozen by the Impressionist painters (a boat on the water, a danseuse rehearsing), movement for its own sake. Musically, the work reflects a buoyant Debussy beginning to emerge from the cocoon of French Romanticism, whose influence can still be strongly heard nonetheless in the
Fauré-esque barcarole of the En bateau movement. The 1890 Ballade, originally composed for piano solo and entitled Ballade slave (the liner notes imply—again erroneously—that the Ballade later became an orchestral work), already moves away from the aesthetic of the Petite suite and could just as easily belong to the Suite bergamasque, which is remarkably similar in style.

The two-piano Lindaraja, written in 1901, is quite a different story. Like the later Ravel Frontispice, much of Lindaraja is dominated by a motive—this one longer and more exotic than Ravel’s—that continually repeats throughout much of the piece. A device greatly developed much later by Messiaen, Lindaraja is also filled with Hispanic ostinatos and rhythms that turn up in dozens of Debussy and Ravel compositions, what with this, the drone melody, and the cyclically repeated thematic fragments, the normal characteristics of Western musical temporality are stretched about as far toward the East as they can be without losing contact altogether.

In the Six Epigraphes antiques, arranged for piano duet in 1914 from the 1901 incidental music for the Chansons de Bilitis, Debussy carried the archaism already apparent as early as the menuet from the Petite suite to an extreme that can immediately be heard in the sunny Mixolydian of the opening theme. Here, too, Debussy’s inspiration seems to have shifted from the linear movement of the Petite suite to the ambiguous or cyclical movement inherent in the natural symbolism (the wind, rain, night) that pervaded French art of that period.

Finally, the 1915 En blanc et noir, for two pianos, consists of three pieces dedicated to three acquaintances (including Koussevitzky and Stravinsky). The second, written for a friend killed at the front in 1915, is one of Debussy’s strangest and most lugubrious compositions, reducing the musical language at certain points to almost utter silence and introducing in other parts echoes of bugle calls and the Martin Luther “Ein feste Burg” choral in a kind of collage. Nothing could show better the distance traveled from the optimistic youth to the embittered composer surrounded by war than the contrast between the En bateau of the Petite suite and the bleak starkness of En blanc et noir’s second movement.

Much of the Kontarsky’s well-deserved reputation has come from their performances of avant-garde music. But they prove to be unparalleled interpreters of Debussy and Ravel (who certainly helped pave the way for much of the music championed by the Kontarskys), and the clarity, precision, and energy of their playing should dispel once and for all the notion that these two composers are best served by weightless fingers on gossamer keyboards. Not that the artists’ interpretations are all granite. Few duo pianists I have heard are capable of producing sustained pianissimos with greater effect than the Kontarskys. Nor are there many—if any—teams capable of imparting the pulse and spirit that can be felt from the very opening work on Side 1, the piece dedicated to Serge Koussevitzky (erroneously referred to by Debussy as “A.” Koussevitzky) from En blanc et noir. But the Kontarskys also bring out as well as I have ever heard the frequent and sometimes jolting contrasts that give much of the music here its character.

Deutsche Grammophon’s sound is both rich and remarkably smooth, equally highlighting all the sonorities of the duo-piano range, which has been extended about as far as it can go by Debussy and Ravel. My only regret, apart from the reticent liner notes, is the omission of Debussy’s 1882 Triomphe de Bacchus for piano duet (intended for orchestration). But it would take many more reservations than these to make me consider this set anything other than indispensable—one of the year’s outstanding releases to date.

An added note: In spite of the importance of each and every piece included on these discs, except for those works listed from previous recordings you will find nothing more than a “Piano Music (four-hands)” entry under Debussy and Ravel in the Schwann catalogue (even in the February “new listing”), which becomes, for my money, less and less useful each month. Protest!

DEBUSSY AND RAVEL: Complete Works for Piano Duet and Two Pianos. Alfons and Aloys Kontarsky, pianos [Rudolf Wernher, prod.] DEUTSCHE GRAMMOPHON 2707 072, $15.96 (two discs).

DEBUSSY: En blanc et noir. Petite suite; Lindaraja; Comèque et Air de danse; Ballade; Six Epigraphes antiques; Symphonie in B Flat; Marche écossaise; Prélude à l’après-midi d’un faune (arr. Ravel). RAVEL: Ma Mère l’Oye; Rapsodie espagnole; Entre douces; Frontispice.
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The opening Allegro holds together well in this imperious rendering, and the slow movement is masterfully treated. Segal draws moving playing from his forces throughout, projecting the music with judiciously chosen tempos, finely accented rhythms, and firm, lyrical phrasing. Especially noteworthy is the orchestral prologue to the Adagio, which completely avoids any feeling of routine. It is really the measure of exceptional musicianship (and musicality—by no means the same thing) when one's attention is newly riveted on what the music is doing at every turn in literature as thrice-familiar as this.

For all the freshness, however, there is abso-

complex of detail never gets entangled. In a word, this is proportioned playing, pretty wonderful to experience.

But not quite so wonderful, I feel, as it was on the older recordings. The simultaneous appearance of old and new albums, and the substantial monetary saving offered by the Musical Heritage, poses a real dilemma. A side-by-side, piece-by-piece comparison of the London set and the older Columbia and Epic/MHS versions reveals that something slight but tangible has disappeared from De Larrocha's art. Although the timings are almost identical, the more recent performances seem a bit faster, less rhythmically vital, and at times even verging on the perfunctory. I don't wish to overstate the case—the newer readings are still virtually incomparable—but I don't quite sense the adventurousness and elan that have given me so much pleasure from the earlier versions.

But here's the rub: The MHS Iberia and Navarra are notoriously difficult to reproduce properly. The treble is jangly, almost xylophone-like, and the bass is rather hollow and boomy. On some systems you may be able to re-equalize the sound satisfactorily.

So in the case of those two works, the London, with its sleek, resonant, unblemished reproduction, wins by default. Even the price differential is narrowed somewhat when you realize that the four books of Iberia, occupying three and a half sides on MHS, fill on three sides in the London album.

(Musical Heritage, incidentally, has also announced the reissue of the older Cantos de España as part of a two-disc album. MHS 1571/72, but the new pressings have not yet reached me.)

The differences between De Larrocha past and De Larrocha present are as nothing when one sets either against another pianist. Rena Kyriakou, for example, is a sensitive, assured keyboard technician, but her competent account of Iberia seems small-scaled, broken into fragments, and tonally limited after De Larrocha's sublime re-creations. The problem seems to be several-fold. First of all, Kyriakou lacks the ability to sail easily into climactic passages. Always she seems to play for safety, to relax into a different gear. Second, there is about Kyriakou's playing a methodical, typically Paris Conservatoire-oriented reliance on wrist action and digital uniformity that drains the music of its requisite evocative atmosphere and massive power. The result, not very satisfying, comes out sounding like poor man's Chabrier.

The Vox Box, however, does have a raison d'être: Collectors will want to have the early salon works of Albéniz, which De Larrocha has never, and may not ever, record. Mlle. Kyriakou acquires herself admirably in these technically less Olympian essays. Here her playing has more charm, lift, and even more color at times. The Vox sonics are a bit studio-bound but entirely unobtrusive.

H.G.

ALBÉNIZ: Iberia (complete); Navarra; Cantos de España. Alicia de Larrocha, piano. LONDON CSA 2235. $11.96 (two discs).


Mme. de Larrocha's name has long been associated with this music. Her earlier recording of the Cantos de España, originally produced by Spanish Hispavox, used to be available on Columbia MS 6603, coupled with the same composer's Suite española. As for Iberia, Albéniz' magnum opus, there are apparently at least two prior editions. Columbia M2L 268, which appeared domestically as a mono-only set in the early days of stereo (c. 1959), was probably taped much earlier (by Hispavox). A stereo version, also from Hispavox, was a short-lived Epic release of the late Sixties. I assume it is the latter that Musical Heritage has now reissued. The London performances, by contrast, are from recent sessions and benefit greatly from up-to-date piano reproduction.

The value of the London release cannot be minimized. Mme. de Larrocha is an extraordinary virtuoso and has wonderful insight into the idiom. She has a zestful, energetic rhythmic sense, great tonal variety (which the London engineering does full justice to), and a feeling for flowing continuity. The sonority she strives for, and obtains so successfully, is basically lean and oriented toward line rather than mass. The sustaining pedal is used skillfully but never obtrusively: One tends to hear ostinato accompaniments and countermelodies with spare directness. The pianist's view is so uncluttered, so well balanced, and her digital command so diversified that, although you hear everything, the elaborate

Explanation of symbols

Classical:

• Budget
• Historical
• Reissue

Recorded tape:
•• Open Reel
••• 8-Track Cartridge
•••• Cassette

From the evidence at hand, Rudolf Firkusny and Uri Segal might be logical candidates for a complete Beethoven concerto cycle. This Emperor is sturdy, plant, and musical—a performance with certain fresh treatment of detail which nevertheless preserves the best of tradition. Firkusny is a pianist of aristocratic line and poised phraseology. In the concert hall, I have sometimes found him a trifle lightweight and small-scaled, but on this recording skillful microphoning has minimized any such deficiencies (only in the rondo does the passage work seem occasionally thin, and never seriously so).

Alicia de Larrocha
An extraordinary virtuoso.
olutely no reliance on eccentricity or cheap novelty—it is simply that these musicians feel and love every aspect of Beethoven's genius and are eager to communicate their findings to the listener. Such down-to-earth, unslick responses are rare in this era of uneventful machine-tooled "perfection." In the transition passage leading to the rondo, incidentally, Segal opts for the arco reading of the first low B flat, also favored by Solti (with Ashkenazy) and Szell (with Fleisher and Gilh昊). In the first and all subsequent printed editions, this detail in the manuscript was altered to pizzicato. Segal plays up his unusual variant more strongly than either Solti or Szell by having the double basses swell slightly on the note in question. Up to now I had no preference, but Segal, I think, persuasively won me to the arco reading.

The Phase-4 engineering, aside from the aforementioned amplification of the pianist's sonority, is modest and notably ungimmicky. There is some close spotlighting of woodwinds in the first-movement development section, but on the other hand, certain string triplets are not brought out with any particular insistence. Mainly, this is a very warm, musical sound.

Certainly this disc ought to be on anyone's short list for this work—a very fine account of a sublime, thoroughbred warhorse.

H.G.


One of Serkin's earliest recordings for Columbia coupled Beethoven's Op. 78 Sonata with his curious, quasi-improvisational Op. 77 Fantasy. The Op. 22 Sonata, on the other hand, is new to the pianist's recorded repertoire (the only time I remember hearing him play the work was at a series of Beethoven bicentennial concerts in 1970).

Op. 22, happily, shows Serkin in rare form. Though the coloristic range is intentionally a bit restricted, there are shadings and lyrical touches that indicate an unusually relaxed frame of mind. Serkin, as always, is after power and structure, but these elements are leavened by a rare vein of elegant humor. This is, for my taste, the most convincing Op. 22 since the Kempf piano edition.

Serkin begins the G minor Fantasy rather deliberately, and one is surprised at the outset by his breaking of hands à la Paderewski. Schnabel's faster, more objective interpretation flowed more succinctly, but Serkin's rendering leaves no doubt that a compelling artist with an absorbing personality is at work. The rondo is a lute-like, even gauche at times, but it adds up to a very powerful and moving listening experience.

Among the many times I have heard Serkin play the Op. 78 Sonata, I recall a wonderfully mellifluous, songful, relaxed account (c. 1969) and at least two others that were hard-hitted and nervous. The new recording falls between. The opening movement, taken slowly in an obvious attempt to appear benign, is rather blooby and listless. It sounds as if he were forcing himself to be relaxed (just as Toscanini must have done when he made his unsatisfactory recording of the Brahms Third Symphony). The finale, on the other hand, is a shade hard-toned but lacking the usual Serkin rhythmic élan.

Serkin's sonority is a difficult one to reproduce; this facsimile—on the brittle, bloodless side—is reasonable enough. Highly recommended for Opp. 22 and 77.

H.G.

Boito: Mefistofele. For a feature review of a recording of this work, see page 73.


I have never encountered a score by Carlos Chavez that did not contain something vital, and these ballet scores are no exception, even if they fail to equal the power or sustained intensity of spirit in the finest of his symphonic works.

Both are well suited to four-channel recording, since the performing forces are large and varied in the timbre and color of the music they produce. There is, for a start, an orchestra with an oversized percussion section that contains the characteristic Latin-American instruments as well as the usual items. Then there are voices, both men and women in large and small groups, singing together or in juxtapositions of rhythms and melody that seem made for front-back effects in quadraphony.

Most of all, there is the sense of spectacle. The scores are used by the Ballet Folklorico de Mexico and, with staging, must be impressive totalities of sight and sound. Even with the visual element lost, there is much to capture and hold the ear, and I found this to be a record that grows in excitement with re-hearing. But watch those levels. They can pop a speaker fuse or two before you know it.

Chavez, of course, has unique skills as a conductor of his own music. He is an orchestra figure of reputation and long experience, and he conveys to his English players vividly the style of his work. The chorus, also a very fine one, traverses the intricacies of its music with true bravura. The percussionists are first class.

The quadraphonic effect is that of being surrounded by the performance, and the usual device of placing most of the percussion in the back is followed successfully. The chorus is used flexibly, and passages that lend themselves to front-back antiphonal effects are generally heard that way. I would give the quadraphonic remix engineers a score of about 85 per cent for sensing and achieving all the possibilities of the medium.

The result is a thoroughly attractive record—stimulating and decidedly offbeat repertory. We are treated to a really exciting display of quad virtuosity. If Latin music has a special appeal for you, this is an indispensable disc. R.C.M.

Coleridge-Taylor: Hiawatha's Wedding Feast: Onaway! Awake, beloved; Dansé nègre. For a feature review of a recording of these works, see page 71.

Cordero: Concerto for Violin and Orchestra; Eight Miniatures for Small Orchestra. For a feature review of a recording of these works, see page 71.


New Music for Violin and Piano. Paul Zukofsky, violin; Gilbert Kalish, piano. MAINSTREAM MS 5016, $5.98.

Crumb: Four Nocturnes (night; Music II). Yuse Gasa, Woumami: The Long and the Short; Cada: Six Melodies.

George Crumb is one of the most original, and yet also more accessible, voices in new music, and he is fast becoming one of the most recorded of the younger generation. These four newly released pieces, all dating from the past...
nine years, provide an excellent overview of his work.

The Four Nocturnes for violin and piano (Night Music II), written in 1964, is the earliest of the compositions. Like most of Crumb's music, this work is extraordinarily delicate, being essentially a quiet, almost ethereal dialogue between violin and piano. Rarely do the two instruments play simultaneously; rather, they follow a sort of statement-response continuity punctuated by long silences during which the accumulated resonances are allowed slowly to fade. It is a work etched on a small scale, yet an effective and expressive one. The performance by Zukofsky and Kallish is accurate enough, though strangely detached (which is not, however, without its effect in this somewhat "cool" and reserved piece).

The two works on the Columbia disc follow chronologically, Night of the Four Moons, one of Crumb’s series of Lorca settings, was composed in 1969 during the Apollo 11 flight, and all of the texts deal in some way with the moon. (They are, according to the composer, meant to "symbolize my own rather ambivalent feelings vis-à-vis Apollo 11." ) There are four songs, of which the last is the longest and most complex, so that the first three really seem introductory. Scored for alto (or mezzo), alto flute (doubling piccolo), banjo, electric cello, and percussion, it is as crumb ambises an “occasional” piece, yet it is one that makes a strong impact.

And here the performance is extraordinarily good. Jan DeGaetani, whom Crumb followers will remember for her fine recording of his Ancient Voices of Children (Nonesuch 171255), sings the piece magnificently, with a dark and full timbral quality, a sure sense of pitch, clear projection of the sonorities of the text, and—above all—a wonderful grasp of the dramatic qualities of the work as a whole. The instrumentalists from the Aeolian Chamber Players are also first-rate.

The only weak point is the ending, when the performers (except for the cellist) leave one at a time until all are off-stage, at which point they perform a final tonal passage “in sile Mahleriano” superimposed over the cello’s closing music, which consists mainly of a high pedal A. This makes a striking effect in live performance but is less effective on the recording. Although the sound of the instruments becomes more distant as each player departs, this by itself makes little sense. But of course this will be an unavoidable problem in any recording of this piece.

(An obvious detail: In the score each performer is required to strike a glissando plate (sounding A) as he leaves the stage, but in the recording an antique cymbal is used. Moreover, whereas there are four such exit signals in the score—one for each performer who leaves—there are five in the recording.)

Composed for The Voice of the Whale (Vox Balanica), was, according to the composer, “inspired by the singing of the humpback whale,” a tape recording of which he heard in 1969. Crumb continues: “Each of the three performers should wear a black half-mask (visor-mask) throughout performance of the work; the visors, by the sense of human projection, are intended to give a symbolic representation of the powerful, impersonal forces of nature (nature dehumanized).” The work is composed for “electric trio”—i.e., flute, cello, and piano, each of which has been fitted with a contact mike, thus providing for amplification of the instrument’s traditional sound, a psychological displacement of its effect: “music dehumanized,” I suppose.

The work is not, it should be understood, an attempt to “imitate” the sound of the whale, but rather to evoke something of the quality suggested by its subtle, extended, and total musical and psychological image. The piece is organized according to a sort of “chronological” program related to the periods of geological time. It opens with a solo prologue by the flutist, who simultaneously sings and plays the notes, creating a strangely expressive music, which Crumb entitles “Vocalise (… for the beginning of time).” There then follows a “sea” theme and five variations, each of which is designated by one of the five main geological ages: Archeozoic, Protozoic, Paleozoic, Mesozoic, and Cenozoic. Actually, the variations are not so much on the theme itself as on fragmentary elements drawn from it, focused upon, and developed individually. It is only in the closing movement following the variations, “Sea-Nocturne (… for the end of time),” that the theme is again taken up as a complete unit, and here it is “transfigured” by appearing in a more clearly tonal context (B major) than has been heard anywhere before in the score.

The piece is tightly unified. The lower three strings of the cello are retuned so as to form with the fourth string the chord B-F-Sharp-D-Sharp-A, a sort of basic sonorities from which virtually everything is derived. The overall pacing is very slow throughout, a point that to me car represents a problem. There is very little contrast in regard to the larger rhythm of the piece relative to the smallest (in a more surface level). It is an impressive work, but one that—despite the extreme local juxtapositions—tends toward blandness when perceived as a whole. Again, the performance by the Aeolian Chamber Players is excellent.

The most recent, and also the longest, of the pieces recorded here is Makrokosmos, Vol. 3, a thirty-five-minute work for solo piano. The title, of course, is related to Bartók; the formal layout is related to Debussy’s preludes: the composition consists of two volumes of twelve pieces each. Vol. 1 was completed in 1972, and Vol. 2 was finished in 1979. I have not seen the score of the latter work, but according to the composer the formal scheme of Vol. 1 “has its exact counterpart in Vol. 2.”

The twelve pieces of Vol. 1 are each named for a sign of the Zodiac (in addition, they have separate descriptive titles) and are grouped into three parts of four pieces each. (I have not seen the score of the latter work, but according to the composer the formal scheme of Vol. 1 “has its exact counterpart in Vol. 2.”)

The over-all sense of Makrokosmos reminds me of Schumann in that the larger form evolves gradually out of a series of short pieces, which taken together nevertheless create an impression of a single musical progression. There are other aspects of the score that form strong ties with past music, a characteristic of Crumb’s work in general. The piano writing frequently contains, in addition to all of the composer’s usual “special effects,” the sort of elaborate figuration associated with nineteenth-century virtuoso piano music (and twentieth-century avant garde music). Also, the whole-tone scale, so prominent in music composed around the turn of the century, plays a central role throughout most of the piece, although it is “dissolved” to a sort of distorted echo in the essentially diatonic final piece. (It is, incidentally, an indication of Crumb’s skill that he is able to use the scale without making the music sound banal.)

Perhaps most impressive, however, is Crumb’s extremely sensitive handling of the slow rhythmical pacing. I know of no composer writing today who is able to present such a sparse and attenuated sonorous image without producing a corresponding sense of disruption. By various means—most particularly, I think, by the spanning and connecting of temporally dislocated segments through very simple, even obvious timbral and registral associations so as to point the ear to the larger relationships—he is able to keep the motion of the piece under control.

Indeed, one of the most interesting aspects of Crumb’s music is just the tension that arises from having to wait over such long spans for interrupted ideas to be taken up again and continued. It is a delicate process, and in some cases almost a correspondence of the sort of “action” in such a way as to produce a corresponding musical “action” in Crumb’s case it does with a high degree of conviction. The result is some of the most compelling music being written today.

Makrokosmos was written for the pianist David Burge, who plays it here; and about his performance (which includes singing, whistling, speaking, and groaning, as well as playing his instrument and playing it on the keyboard up to the piano, and occasionally even with a vibrato, I can only say that it seems quite perfect to me. He plays everything with great conviction and with a fine sense of both the individual effects and total shape of the piece.

A word about the other works on the mainstream disc. Cage’s Six Melodies, which was written in 1951, is direct and simple. The violin uses no vibrato, and the entire work is limited.

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to a very few elements that are combined into constantly changing arrangements and varying rhythmic contexts. (The piece is very reminiscent of the composer's String Quartet in Four Parts, which was written about the same time.)

The compositions by Isang Yun, a Korean now living in Berlin, and Charles Wuorinen are considerably more complex. Yun's Gaua (1963) contrasts slow and fast sections in a sort of neo-Expressionist manner: Wuorinen's The Long and the Short (1969) for violin alone also makes much of contrasts of different rates of speed but here juxtaposed in more immediate contexts. Both works seem quite strong to me, and they are well performed by Zukofsky and Kalish.

R.P.M.


Dvořák's impressive F minor Piano Trio of 1883 stands at the chronological center of his output for this combination of instruments. Two youthful trios had come seven and eight years earlier, the Dumky eight years later. And spanning the whole period, of course, were the eight string quartets. All of which gives an indication of the composer's absorption in chamber music throughout these vigorous years and helps account for the notable strength of the F minor Trio.

The composer's hand is sure: The three instruments are well knit in their interaction; themes vary from typically Dvořákian breadth and sweep to an almost sweet melodiousness (in the second-movement trio); the character of the music varies from the concerted surge and forward push that reminds us so much of Brahms to a really captivating delicacy in part-writing. The interweaving of violin and cello upon occasion is succinct—no other word will do—and the cello in particular is set forth in attractive moments of dirge-like and idiomatic proclamation (the third movement provides some of its finest moments).

The performance by this Israeli-based ensemble matches the music in bite, thrust, and the need to sing. However, it is full of a kind of elemental energy that doesn't give way to roughness or indelicacy; the rather refined confrontations between the two strings are cleanly and affectionately handled, and the piano encourages or commands, as the score calls for. On the whole, the Yuval displays a shade more zest than the Beau Arts, which inclines toward a gentler, smoother, more elegant approach. But the Beau Arts makes its own case. Both versions are good.

S.F.

FAURÉ: Ballade for Piano and Orchestra—See Saint-Saëns: Le Carnaval des animaux.

HALÉVY: La Juive: excerpts.

Rachet
Etoile
Eliezar
Leopold
Cardinal Brogni

Ambrosia Opera Chorus, New Philharmonia Orchestra, Antonio de Almeida, cond. [Richard Mohr, prod.] RCA Red Seal ARL 1-0447, $5.98.

Martina Arroyo (s) Anna Moffo (s) Richard Tucker (t) Juan S.bottom (b) Bonaldo Giaiotti (tb)

The Yuval Trio Matching Dvořák in vigor.

The historical significance of French grand opera, its ascendancy over the musical outlook of a whole generation. its influence on surviviving masterpieces like Aida, are both indisputable and tantalizing. Now that we seem to be on the threshold of rediscovering the greatest work of this genre—the original. French version of Verdi's Don Carlos—the importance of further acquaintance with its neglected progeny, Guillaume Tell, Le Miser de Portici, Les Huguenots, and La Juive, hardly needs stressing.

Even without the fascination they hold for anyone interested in operatic history, these operas would surely yield a lot of musical pleasure if occasionally heard in the theater. They all contain fine music. Act II of Guillaume Tell and Act IV of Les Huguenots are superb conceptions grandly carried out. So is Act II of La Juive. Yet the obstacles to theatrical revival of works like this are many. The casing of any of the aforementioned operas would be a nightmare to present-day impresarios: La Juive, for example, calls for a heroic tenor, a lyric tenor, a dramatic soprano, a lyric soprano, and a basso cantante—all of them, moreover, capable of great technical finish. Even though the principal tenor role of Éléazar is essentially a character part, it requires the singer, right after "Rachel, quand du Seigneur," to launch into a cabaletta bristling with B flats and even a top C. Les Huguenots needs the services of seven stars, Guillaume Tell the kind of tenor and baritone now almost extinct.

In addition, since the opera is by definition spectacular, since it plays off individuals against vast historical and ideological forces, the costs of an adequate physical production and of engaging the huge forces required by librettist and composer (including a full ballet troupe) are bound to be prohibitive for all but a few opera houses. Were these works unblemished masterpieces, the difficulties in their way under today's stringent conditions would still be prodigious. As it is, we must, I suppose, be grateful for the odd staged performance, for concert versions, and for recordings.

RCA is to be praised for its initiative in tackling even as much of the score as it has been able to get on a single LP. Much of the fifty-plus minutes of music is impressive: Cardinal Brogni's pacifying address to the crowd in Act I: "Si la rugeur," a beautifully shaped cavatina; the charming Act III Bolero; the second half (all we are offered on this recording) of the Act IV duet between Rachel (the title character) and her rival Eudoxie. Éléazar's music is especially fine. Here we are given only the Passover Scene, the superb Act IV aria "Rachel, quand du Seigneur," and the brief female to the opera, in which Éléazar bids fare- well to Rachel and then, just as she is being thrown into a vat of boiling oil as an infidel, turns to his enemy Cardinal Brogni to reveal—shades of Azucena—that Rachel is really the cardinal's daughter. Only the Act II duet between Rachel and her lover Léopold seems inferior. And that, I suspect, is as much due to its being heard out of context as anything. The music reaches its natural climax only with the arrival of Éléazar on the scene to foil Rachel's intended escape with a Christian.

Richard Tucker, who recently achieved one of his life's ambitions in New Orleans by performing Halévy's opera on stage, makes an effective Éléazar. The voice, though it betrays its age at the top, is still a splendid instrument. Tucker has clearly made a very successful effort to purge his style of exaggeration, and he creates a figure of dignity and consequence.

Only at the climax of "Rachel, quand du Seigneur" does he betray a momentary disbelief in the music's efficacy by sobbing his way into the final scene.

Martina Arroyo, though her voice is uneventfully produced, does some good work here. What she lacks, however, is the ability to enunciate the text with vigor. Still, next to the Léopold of Juan Sabaté she sounds like a champion. In the love duet the tenor is wholly inadequate: His voice is small and throaty, his musicianship primitive.

Anna Moffo is, by her own recent standards, in fine form. By more absolute standards, she is not very satisfactory, the voice nowadays being thin in sound and especially deficient in the middle register. She is remarkably clumsy at the opening of the Bolero, and though she improves as she goes along she never really sounds anything but overambitious. Bonaldo Giaiotti is good. His tone lacks true solidity around low E, F, and G, but otherwise he sings with distinction. Antonio de Almeida leads his forces carefully. Ideally, though, one would say more sweep.

The French pronunciation is consistently commendable in this recording. Notes and, though I haven't yet seen them, texts and translations.

D.S.H.


Comparison—F. J. Haydn concertos: Biggs, Rozsyjai/Columbia Sym. Col. MS 6682
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Haydn's early keyboard concertos, dating mainly from the years between 1755 and 1765, are simple, unassuming miniatures exhibiting many of the same characteristics as Mozart's "church sonatas" or Handel's or Bach's keyboard concertos. The solo writing is not demanding—usually confined to a single line for the right hand while the left follows the orchestral bass line—and, on the whole, these early works only hint at the masterpieces that were to come later. Still, Haydn's sunny disposition does peek through often enough so that, in spirited performances like these by Chorzempa, a great deal of enjoyment can be found.

Musicologists have been struggling for years with these three concertos, and still there is not universal agreement as to dates of composition, precise orchestration, or even what solo instrument is intended (organ, harpsichord, or possibly even pianoforte). For instance, H. XVIII: 1 is here scored for organ, strings, and two oboes, while Biggs's recording also includes two horns. Similarly, Biggs's recording adds trumpets and drums in H. XVIII: 8; these are omitted in Chorzempa's edition. It is interesting to be able to hear both versions.

As for the performances, Chorzempa's are flawless: lively, nicely ornamented, and accompanied by a really superb band of instrumentalists. And the recording is rich and warm and clear in spite of the considerable amount of reverberation. Still, I slightly prefer Biggs's old (only recently deleted) single disc of these concertos. The orchestral playing and recording aren't quite up to Philips', but Biggs infuses this work with a personality and sparkle and lift that are unique and irresistible. You won't be disappointed by either set, though.

Haydn's Eisenstadt is a tiny Austrian town near the Czech and Hungarian borders that even today boasts not one or two, but four more or less "authentic" Haydn organs. Chorzempa plays on three of them in these recordings, and Biggs plays on the fourth (in the Stadtpfarrkirche). All are delightfully clear, sweet-toned little instruments, and we are lucky to have recordings of all four now.

Michael Haydn's double concerto for viola, organ, and strings is a rather more substantial piece: longer and boasting plenty of virtuosic material for both soloists. In fact, it's hard to understand why this marvelous work hasn't become as popular as, say, Mozart's Sinfonia Concertante for Violin and Viola, which it resembles in many ways. Chorzempa's and Gurranna's performances are excellent, but there is even stronger competition for this work. Simon Preston's recording with Neville Marriner is altogether more lively and spirited, tempos are faster, and Marriner gets razor-sharp precision playing from his strings that is simply not equaled by the Philips instrumentalists, fine though they are.

Johann Georg Albrechtsberger (1736-1809) was a celebrated organist and teacher in his day but is remembered today primarily as Beethoven's teacher. His concerto for organ and strings bubbles along cheerfully and makes a good disc mate for the Haydn concertos, written at about the same time. However, I can omit it with a clear conscience from my final recommendation, which is to try to locate Biggs's recording of the three Josef Haydn concertos and Preston's recording of the Michael Haydn (coupled with the first of the Josef Haydn concertos). If the Biggs record really proves unobtainable, this Philips set is a very close second choice.

C.F.G.


Symphonies: No. 82, in C (The Bear); No. 83, in G minor (The Heron); No. 84, in E flat; No. 85, in B flat (Le Pape); No. 86, in D; No. 87, in A.

Comparison: Bernstein/N. Y. Phil.

Col. 035 769

Haydn: Symphonies: No. 88, in G; No. 89, in F. Vienna Philharmonic Orchestra, Karl Böhm, cond. [Ellen Hickmann, prod.] DEUTSCHE GRAMMOPHON 2530 343, $7.98.

Haydn was always appreciated in France. His wit and élan, the fast give-and-take that is not unlike spirited conversation in the rapid French manner, was dear to the upper crust of prerevolutionary French society. By about 1780, Parisian publishers not only vied with one another to obtain original manuscripts from the master, but pirated and cheated other composers by publishing their works under Haydn's name. No wonder that eminent...
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scholars, among them especially H. C. Robbins Landon, spend years and years in establishing the order and authenticity of the hundreds of Haydn's symphonies, quartets, trios, and sonatas.

Haydn responded to the admiration of the French by shyly injecting into his music all sorts of French elements calculated to raise an echo in the Paris audiences for whom these symphonies were composed. Yet these are wonderfully personal and characteristic works, the acme of symphonic thrust and idiomatic excellence. By 1784-85, the time of this commission, Haydn looked back upon a quarter century of symphonic composition—eighty symphonies!—yet this set represents a stylistic change in which social elements played an important role. The "Paris" symphonies were written for the concert hall, not for the princely palace, and for a large professional orchestra, not the tiny one at Estérháza. Haydn took advantage of the size and brilliance of the orchestra of the Loge Olympique and wrote in a vein that the best modern orchestras find difficult to satisfy. Once launched on this style, this freedom from technical limitations, there was no turning back; all the subsequent symphonies go beyond the customary limits of eighteenth-century orchestral technique.

The "Paris" symphonies carry nicknames: The Queen, The Bear, The Hen, but these titles originated later and Haydn had nothing to do with them; in his symphonies he seldom composed program music. Take No. 83: The playful repetition of a single note in dotted rhythm in the oboe may vaguely resemble the cackling of a hen, but the serious beginning of the theme and its elaboration and development are quite dramatic; the playful passage is only a little episode. No. 82 became famous for its last movement, which with its ostinato bagpipe-drone bass must have conjured up to audiences the tame bear acts performed at the country fairs. This was an unheard-of intrusion of popular music into the aristocratic symphony, and it bowed over not only the French but a legion of subsequent composers. No. 82 was written in 1787, and its melody was so striking that modern performers are often fooled if they don't watch for the telltale indications in the general texture. Haydn gives the melody steps too short, not realizing that these are not grace notes; the resultant chirp hurts the otherwise fine performance, in which the melodies are played with warmth and good articulation. Haydn's interpretation is musically superior, even though the engineering annuls a good deal of the finesse. The sound is somewhat better here, no doubt, because of the absence of the drums.

No. 84 is well done by the Germans except for some wayward trills, but beginning with this symphony Bernstein draws away; the sound is now excellent and his fine winds are nicely balanced. This symphony has one of those lordly, introspective slow introductions we know from the "London" symphonies; both conductors give it its due. Bernstein takes the finale at a more exhilarating clip. Then in No. 85 he plays the first movement allegro though it is marked vivace; but he is right because of the nature of the theme. In the Allegretto, Bernstein's tempo is excellent.

No. 86 has a remarkably extended and developed minuet, a real symphonic piece that is a miniature sonata structure. Both conductors do well with this symphony, especially with the piquant and propulsive finale, but Bernstein exploits the melodic value of the grace notes as Sanderling does not. No. 87 has no slow introduction and just starts in medias res, vivace, with a typical Haydnesque drive that is irresistible. Again, both conductors catch its spirit admirably. Both sets have good notes, though Robbins Landon (Columbia), being an American scholar, avoids rather far-fetched references to Bruckner so dear to the Germans.

The two symphonies recorded by Karl Böhm with the Vienna Philharmonic were also composed for Paris: No. 88 is one of the great ones—Beethoven's was written with it before working on his Eighth—but No. 89 is a lesser gem. These are acceptable but some flawed performances. The orchestral balance in No. 88 is not very good; the horns are nicely in evidence, but the woodwinds are covered. In the slow movement the solo cello plays á la Sarasate, the solemn and majestic power is, however, put at a disadvantage in Nos. 82 and 83 (recorded before the others); There is a strong echo, the balance is poor, and there is an opaque quality in the tutti. Otherwise the sound on both sets is excellent.
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ing fully across. No. 89 goes better: the woodwinds are still weak, especially the important solo oboe, but the general sound is less dense. The accelerando and the slight second movement finale are well played, and here the balance is good. This is the only coupling of these works in the current catalogue. P.H.L.

KAY: Markings. For a feature review of a recording of this work, see page 71.

KORNGOLD: Symphony in F sharp, Op. 40, Munich Philharmonic Orchestra, Rudolf Kempe, cond. RCA RED SEAL ARL 1-0443, $5.98


One of the most gratifying aspects of Erich Wolfgang Korngold’s musical style is that, in spite of his essentially Germanic, post-Romantic idiom, he never allows his lyrical élan to get out of hand. Not that he is incapable of turning a fine melody; I defy anyone to come up with a more searingly intense theme, more perfectly suited to its idiom, than the one that opens the 1945 violin concerto, one of the composer’s best-known “serious” works. But Korngold’s gifts go miles beyond his ability to write a good tune, and nothing illustrates this fact better than the Symphony in F sharp, finished in 1950.

From the ominous two-note motif that opens the symphony’s first movement to the beautifully startling second theme, which descends in typically Korngoldian wide intervals in an impassioned sigh of the strings, everything seems to grow from a single spark, acquising from the outset a momentum that never loses its vitality, even in the tranquil flute-solo interlude that later furnishes material for the last movement’s marchlike main theme. Much of his genius, as heard in both the symphony and the violin concerto, seems to lie in his combination of an impeccable symphonic logic—incorporating an often scintillating orchestration making prominent use of the celesta, a Korngold trademark—with an emotional depth in which the listener’s joy at the constant unexpected turns of a familiar idiom is balanced by the feeling of unity slowly built up as the work develops.

Thus, although at the opening of the last movement the listener only instinctively feels the rightness of the main theme vis-à-vis the entire symphonic context, this feeling is later perfectly supplemented as the theme is brought back in its original, elegiac, first-movement form to close the symphony. The dashing, monothematic finale of the violin concerto is likewise based on first-movement material, in this case the principal melody. One does hear, particularly in the symphony, hints of other composers (Barber and Mahler in the first movement, for example)—but never masking the masterful originality of a composer whose concert music is only now beginning to get the attention it deserves. Even the early Much Ado About Nothing Suite (1913) with its memorable, scherzolike opening and its dynamic, shifting instrumentation, contains the vibrance and vitality of the later works. And the short Theme and Variations (1952), based on a lullabylike tune, communicates a kaleidoscopic variety of moods that climax in a marvelous flourish.

The appearance of the Korngold symphony on disc is a welcome even if it is a static-filled broadcast transcription. But with RCA’s spacious, warm, sonics, Rudolf Kempe’s beautifully paced interpretation—which seems to communicate every ounce of the symphony’s tension, drama, and subtle lyricism—and the Munich Philharmonic’s excellent playing, the disc must be considered something of an event.

The Angel recording of the violin concerto has the misfortune of competing with Heifetz’s nonpareil rendition. But if Ulf Hoelscher’s playing suffers from a bit of heavy-handedness, making his tone a trifle too full-bodied, this may be more the violist’s than any deficiencies by giving the music and allowing the melancholic Romanticism of the first movement, the misterioso plaintiveness of the second, and the brilliant animation of the finale to rise naturally to the surface. The concerto furthermore benefits from remarkably clean sound that gives its dimension not felt on the Heifetz disc (note the brilliance of the celesta/violin runs in the last movement). And what with the truly excellent performances by Willy Mattes and the Stuttgart Radio Orchestra and the first modern recordings of Much Ado About Nothing and the Theme and Variations, the Angel recording should be hard to resist.

LITOLFF: Concerto symphonique No. 4: Scherzo—See Saint-Saëns: Le Carnaval des animaux.

MAHLER: Songs—See Schumann: Lieberkreis.

MASCAGNI: Cavalleria rusticana (with operatic arias sung by Jussi Björling).

Maggio Musicale Fiorentino Chorus and Orchestra, Alberto Errede, cond. London OSA 12101, $11.96 (two discs) [from RCA Victor LSC 6059, 1959].

WAGNER: Die Walküre.

London Symphony Orchestra, Erich Leinsdorf, cond. [Erik Smith, prod.]. London OSA 151, $29.90 (five discs) [from RCA Victor LDS 6706, 1962].

Both of these sets have been in limbo too long, since the Great Black Diamond Massacre cleared Schwann of so many RCA recordings that reverted to RCA’s former cohorts Decca/London. Both sets have major weaknesses—notably in the conducting departments—but they’re solid productions with strengths unduplicated elsewhere.

Car has jinxed most of those who’ve recorded it; even casts that look fine on paper haven’t worked very well. London, for example, has made three strong Pages, but its own three Cavas are a singularly unsuccessful lot. RCA has the best of both worlds (though it’s pretty well doomed them). Now the company has inherited probably the best all-around Cav to date. Erede’s pacing is unobjectionable. There is nothing distinctive either, and in matters of ensemble and pitch the orchestral playing is, shall we say, undistinguished. But there isn’t a really well-cast recording, and none can touch this trio of principals, all at or near their considerable best. The Side 4 recital is vintage late Björling—darker and more intense than his earlier recordings, but also more laborored. Exceptional singing, in any case.

When the Walküre was released. Conrad L. Osborne began his review [November 1962]: “This is one of those albums which are, by and large, solid achievements but which give rise to enough reservations of the ‘yes, but’ sort to keep one from turning cartwheels over their arrival.” In this era of five complete Ring cycles, it’s hard to believe that there was a time only a decade ago when there was still no complete commercial Siegfried and only the Solti/London Rheingold, the Furtwängler Walküre (a hard-to-find import), and the ghostly Norwegan Götterdämmerung. Fortunately, recordings subsequent to this Walküre have filled many of the gaps, but I have this prophecy, in particular was happily confirmed by the 1966 Solti recording: “I will confess that I am a little bothered by the thought that the Walküre Wotan of Hans Hotter, one of the supreme operatic creations of the past quarter-century, will probably go unrecorded except for some shreds and patches.”

Which enables us to concentrate on the considerable strengths, notably the sheer vocal quality: Only the Karajan recording (DG 2713 002) can match it, and Leinsdorf still has a much stronger bunch of Valkyries to note that within a few years the effective singing days of the then robust George London and Rita Gorr would be over, but here we have a true singing Wotan and the best Fricka I’ve heard. It’s sobering too to go back to the early 1950’s and hear how much less magnetic Jon Vickers’ singing was. Since the affections were always there and took over only gradually, he sounds like two different singers here and on the recent Karajan Tristan. Bournewestin was then at the end of a long career that never had the international success it should have. This is, I believe, her only recording of a complete standard-repertory role, and I find her strong, feminine Sieglinde most satisfying.

If you like Wagner slick and fluent, this set is strong down the line. And while Walküre can stand this treatment better than the other Ring operas, I find Leinsdorf’s work unsatisfying for the reasons David Hamilton described in his October 1973 review of the complete Böhm/Bayreuth Ring on Philips. There is no point trying to pretend that the writing isn’t legato and discursive, the conducting as well, rather try—as Furtwängler and Knappertsbusch did, in quite distinct ways—to characterize each episode as fully as possible. So the Furtwängler/Vienna Philharmonic version (Seraphim JE 6012) remains indespensable, as both Karajan and Solti (London OSA 1509) cut far deeper than Leinsdorf. (For the quality of conducting and singing, Karajan is my own favorite.) But I wouldn’t be without Leinsdorf’s singers. And if you’re par-
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M oss: Elegy; Timepiece—See Riegger: Quartet for Strings, No. 2.

Mozart: Sonata for Two Pianos, in D, K. 448; Sonata for Piano Four Hands, in C, K.

The 361 Serenade has been favored with more recordings—and more good recordings—than any other of Mozart's wind pieces. It is certainly worth all the attention, suspended delicately as it is between the charming formulas of courtly entertainment and more serious, personal artistic expression. The new De Waart, part of his admirable series of wind discs, is a winning performance, but this is a tough field. I myself would place it just below the top because of an almost indefinable lack of elegance as compared to the very best, and because of some slightly pinched oboe tone—a legitimate national or individual characteristic, perhaps, but bothersome just the same. (Totally unimportant eccentricity department: De Waart takes thirty-three of the possible thirty-four repeats, but skips one.)

For me, the top remains the London version by Jack Brymer and the London Wind Solists; their five-disc survey of Mozart's wind music is temporarily out of print, scheduled to reappear on Stereo Treasury. The sound, some ten years old now, is competitive with the Philips, and the performance has a distinction to it that would be hard to over-praise. (Brymer uses a contrabassoon for the bottom line, while De Waart uses the double bass specified in the manuscript—a minor matter, really.)

Of the currently available versions, the Collegium Aureum on BASF lacks the combination of individual excellence and spontaneous precision of the London, but offers a unique pungency of instrumental color through the use of "original instruments," including natural horns. Both Böhm and Klemperer do well by the piece, but both seem to inhibit the chamber-music individuality of the playing; Klemperer in particular sounds too straitlaced. Stokowski's version has its charms, but makes use of sixteen players instead of the prescribed thirteen. J.R.

Christoph Eschenbach
Joining Franz in exemplary Mozart.

Two of Mozart's mature but relatively neglected masterpieces are heard to optimum advantage on this beautifully engineered disc. Both pianists are highly accomplished as soloists, but their teamwork is exemplary. Even more to the point, the technical aspect of these performances—always of the best—is subordinated to the qualities truly essential in this kind of repertoire: phrasing, structure, articulation, and musicianship.

Eschenbach and Franz know the idiom well; better, they know each other well and obviously enjoy combining their talents. Their sense of balance and stress is ideal, and the technical crew has taken it all down with airy ambience and plenty of tonal chiaroscuro. The result is a pair of brilliantly energetic but unshovy readings that compare favorably with the best of the recorded competition: Brendel/Klien (Turnabout TV-S 34064) in K. 448. Joel Ryce/Yalitah Muenhin (Everest, deleted) in K. 521. Highly recommended. H.G.
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In considering Ormandy’s stereo remake, sung like its predecessor in English and thus a contrast to Kondrashin’s Russian-language edition, no purist arguments need apply. Rachmaninoff, after all, never set the Poe original, but the adaptation in the composer’s native tongue of Konstantin Balmont, which in turn was freely translated back into English by Fanny Copley. The score simultaneously matches the prosody of both. Copleland’s text, used by Ormandy, is as different from Balmont’s, used by Kondrashin, as the latter is from Poe’s. (Melodiya/Angel includes a literal English translation of the Balmont text: Everest, in its release of the same piece.)

Linguistic preference aside, both American recordings (the Ormandy mono is still available from Columbia Special Products) convey more of what goes on in the orchestration than the Melodiya/Angel, even though the mono Ormandy is a good decade older than the Kondrashin, a respectable example of early Soviet two-channel technology. RCA, needless to say, is even fuller in its rich detail, notably in the percussion and wind departments, and boasts juster balancing within both strings and chorus.

Ormandy’s solo teams are roughly even. Shirley matches David Lloyd’s bold and affirmative mono account of the “Silver Bells,” but the voice has hints of fatigue. Curtin avoids the scooping mannerisms of Frances Yeend in the “Wedding Bells” movement, while Devlin is both technically surer and more properly mournful than was Mack Harrell in the final apotheosis of “Iron Bells.” Kondrashin’s trio of Shumskaya, Dovenman, and Bolsakov is vocally resplendent and turns in a consistently superb characterization of the poems.

Ormandy has changed his interpretation little. He still anticipates the ritard after No. 28 in the first movement and allows his English horns a reverie to take the sixteenths too slowly in the important solo in the finale. The second movement loses the point of the juxtaposed lento and poco piu mosso temps: Kondrashin is just right here, as he is in the bracing presto of the third movement (taken too amblingly in both Philadelphia renditions). The suavity of the woodwinds is justifiably attractive, but the greater abandon and mystery of Kondrashin’s conception and the wonderfully idiomatic playing and singing of the Soviet forces remain irresistible still to me. (Avoid, incidentally, Everest’s processing of that recording, which is pitched sharp and reverses the two stereo channels, in addition to the above-mentioned absurdity of providing the Poe text.)

Ormandy does, however, offer filler works: an insensitive Isle of the Dead on Columbia and a warm and genial account of the Op. 41 Russian Songs on RCA (they were premiered in Philadelphia and represent the composer’s most unambivalent burst of homesickness ever). Here, though, I’m more troubled by English translation: The folk color of the works cries out for the original Russian, as in RCA’s earlier (and quite fine) Buketoff edition, paired with the only recording of the lovely cantata Spring and a Tchaikovsky 1812 that has everything but the kitchen sink. Even more delectable—with its languorous temps for the second song and raucous humor in the third, and with its true Russian choral sound—is Svetlanov’s ecstatic rendering, coupled with Kondrashin’s exciting Symphonic Dances.

RCA seems to have made this record a bit thicker than recent Dynaflexes but, on my copy, has managed a brief section of warpage anyway.

A.C.

REINECKE: Concertos for Piano and Orchestra; No. 1, in F sharp minor, Op. 72; No. 2, in E minor, Op. 120. Gerald Rabinoff, piano; Monte Carlo National Opera Orchestra, Eduard van Remoortel, cond. [Robert F. Comptage, prod.] GENESIS GS1034, $5.98.

Carl Reinecke was one of Germany’s leading musical conservatives in the latter half of the nineteenth century. As conductor of the Gewandhaus concerts in Leipzig from 1860 to 1895, he stood solidly with the partisans of Schumann and, above all, Mendelssohn against the barbarians at the gates—Liszt and Wagner.

Yet for all his having picked the “wrong” side, he exerted a wide influence all over Europe as a teacher, pianist, conductor, and composer. And thus one stands once again in Genesis Records’ debt: Whatever one may ultimately think of these two concertos’ worth, it is both important and of enormous interest to have them on hand in performances as fluidly executed and warmly recorded as these.

Reinecke’s Mendelssohnian ideals are everywhere apparent in both works. Both pieces flow past the ear in rather watery fashion, simple and uncomplicated. There are pretty tunes, grateful instrumental touches, fluidly pianistic writing, and an all-purpose lack of

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J.R.

**Riegger:** Quartet for Strings, No. 2. **Dona ldo Harris: Fantasy; Moss: Elegy; Timepiece.** New Music Quartet (in the Riegger). Romano Tecce, violin (in Elegy); Jean Dupouy, viola (in Elegy); Raymond Des Roches, percussion (in Timepiece). Paul Zukofsky, violin (in the Harris and Moss works); Gilbert Kalish, piano (in the Harris and Moss works). [Carver Harman, prod. j COmPOSERS RECORDINGS SD 307. $5.95 [Riegger: from COLUMBIA ML 4494; here rechanneled].

I. This record restores to the catalogue a significant piece of American music. Wallingford Riegger’s String Quartet No. 2 was composed in 1948 and first performed in January 1949. It is abstract and individual in the manner of much of Riegger’s work, and it receives here a performance fully worthy of the reputation of the New Music Quartet. That estimable ensemble, which broke up in 1956, consisted of Briand Eric (now leader of the Yale Quartet), Matthew Raimondi (leader of the Composers Quartet), Walter Trampl (enough said), and Cloyd Adam (who is about to retire as cellist of the Juilliard Quartet).

CRI is once again to be congratulated for rescuing an important document of American music from the vaults of a major company. And the major company, Columbia, is to be congratulated for making the material available to CRI.

The rest of the music here is less important, although not without interest. Lawrence Moss’s two pieces reveal solid craftsmanship and an emotionalism that doesn’t quite penetrate up to the surface of the music. *Elegy*, which includes precise instructions as to the shifting positions of the three players, might well sound more effective in a live performance than it can on disc. Donald Harris’ *Fantasy* combines a serial method with a “lyric and romantic” style, to use the composer’s words: the result sounds both pleasant enough and a little inconsequential.

**SAINT-GEORGES:** Symphony No. 1; *Symphonie Concertante in G.* Quartet for Strings, No. 1; Erneskine; Scena. For a feature review of a recording of these works, see page 71.


**SAINT-SAENS:** Symphony No. 3, in C minor, Op. 78. Christopher Robinson, organ; City of Birmingham Symphony Orchestra, Louis Frémaux, cond. [David Mottley, prod.] KLA VIER KS 526. $5.98.

The sonic differences between these two originally EMI programs are markedly greater than can have resulted from their differences in content and producers. In fact, two different recording locales and two different engineering staffs were involved: Birmingham University’s Great Hall and English Columbia “Studio-Two” personnel for the Organ Symphony, the De Montfort Hall in Leicester and HMV technical personnel for the other program.

Personally, I much prefer the unexaggerated acoustic ambience and the open, ungimmicked engineering of the symphony over the excessive reverberance and crudely spotlighted technology of the piano(s)-and-orchestral recordings. But, unfortunately, the provincial British orchestra itself (although Frémaux has done well to bring it to its present level of executant competence) isn’t yet capable of distinctively refined or attractively colored tonal qualities even in the symphony. Of course the unnatural brilliance of the HMV technology exacerbates both the orchestra’s sonic coarseness and the pianos’ razor-edged “sharpness.”

Interpretively, onetime Monte Carlo National Orchestra conductor Frémaux plays everything admirably straightforwardly, but if he is to be praised for his avoidance of bombast in the symphony and of idiosyncratic mannerisms in the shorter works, he scarcely can be credited with any notably “Gallic” stylistic grace and elegance.

The miscellany program is distinguished, however, by the genuinely bravura playing of pianists Ogdon and Lucas in the *Carnival of the Animals* (wisely done without spoken commentary) and by Ogdon alone in the litoff showpiece and the more poetically rewarding *Faure* *Ballade*. Indeed, both discs might have been worth consideration for purchase at budget price. At full price, decisively preferable versions are available for all these works.

R.D.D.

**SCHUBERT:** Sonata for Piano, in A, D. 959. Christoph Eschenbach, piano. [Franz Christian Wurf, prod.] DEUTSCHE GRAMMOPHON 2530 372, $7.98.

Schubert’s posthumous A major Sonata was one of the less successful items on an Eschenbach program at Hunter College five years ago. This performance is much changed—for the better. His playing has become smoother, rounder, more lyrical. Though Eschenbach maintains a certain Teutonic toughness in portions of the work, the music for the most part flows freely and songfully, without any of theicky, straitjacketed rhythmic constraint of the earlier reading.

For three movements, Eschenbach’s interpretation is rather close to Schnabel’s old Pathé recording. Structure is suggested comfortably but not rigorously; markings are treated with respect but not slavish reverence: drama and lyricism are astutely balanced against each other without undue slanting one way or the other. Lili Kraus used to give a more demonic interpretation; Brendel (Philips 6500 284), at the other extreme, nearly drown in his own lyric artifice.

The rondo is for me Eschenbach’s least successful movement. He sometimes permits his lyric juices to overflow, and the basic structure—so magnificently captured by Schnabel—comes dangerously close to being lost. On the whole, though, Eschenbach’s is a cogent, sympathetic account of a great work, and I recommend it along with Foldes (Odeon C 063 29084), Kempff (in his Schubert sonata set, DG 2720 024), and Hungerford (Vanguard 3 GOOD REASONS FOR BUYING AN EMPIRE CARTRIDGE

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VSD 71171. Serkin (Columbia MS 6849) is too squarely metronomic for my taste, and Schnabel—my favorite—is no longer obtainable. Eschenbach observes the long exposition repeat in the first movement and thus leaves no room for a filler.

H.G.

PHILIPS 6500 423, $6.98.

This installment in Arrau's unfolding Schumann cycle is, in most respects, more convincing than the last (with Kreisleriana and the G minor Sonata).

The master pianist takes awhile to warm up in the Fantasiestücke. Des Abends is tonally sumptuous but a shade solid and emphatic for so shimmering a piece of musical poetry. Aufschwung has trouble gaining altitude: The tempo is too cautious, and there are too many shifts in the basic phrase scansion. Warum? is more of an italic than a question mark. Thereafter matters improve considerably. Grillen is texturally clear and vibrantly projected: In der Nacht a bit leisurely but full of obsessive, troubled shadows; Fabel wise yet simple. Traumnummern emerges as a nightmare full of psychological overtones, not merely a finger-twisting etude, and Ende vom Lied comes through as an interesting dichotomy: tortured introspection and vibrant tone-painting.

Arrau, it should be noted, includes the ninth, posthumously retrieved Stück (published in 1935). It is conjectured that Schumann dropped it from the cycle because he was uncertain where to place it when he changed the sequence of the movements. Arrau inserts it between Grillen and In der Nacht, where it makes a pleasant but unobtrusive effect. Surprisingly his reading is rather brisk and un rhetorical—a convincing interpretation but not at all what I would have expected from this usually highly rhetorical pianist.

Arrau brings a stout heart and a stout tone to the charming Waldszenen. Every detail of his reading has been obviously reasoned and scrupulously weighed. Tempos are often a little broader than usual, the phrase-shaping very tender and personal.

The interpretation provides a remarkable comparison with that of another great Schumann interpreter, Richter (DG/Decca, deleted). The Soviet pianist brought a much lighter touch to these miniatures. At times he almost seemed to step aside and let the work assume its own inevitable shape. Richter used rubato sparingly and pedal bewitchingly: Vogel als Prophet, in his seeming noninterpretation, had a shadowy, haunting atmosphere. Arrau makes this piece much more tangible, and I think that he overdoes the cutoffs at the end of each phrase. The imagery is lost: This is no prophet bird; it is rather a peacock in captivity! Nor does Arrau fully reveal the hunter in ambush (or, rather, he does reveal him—that's the problem with these overly close recordings). The other sections, though, are very perceptively re-created, and if you prefer a Van Gogh palette knife in these programmatic miniatures to Richter's synthesis of water color and pastel (Peter Serkin's analytical Waldszenen, RCA LSC 2955, might be likened to a drypoint engraving). Arrau will be your man.

Certainly this disc offers a plenitude of thoughtful interpretation and, of course, high
virtuosity. For me, however, it is a bit heavy-footed. Engineering and processing are up to the best Philips imported standards. H.G.


Robert Tear is a talented musician, at once intelligent, dedicated, artistically ambitious, and versatile. He has distinguished himself in opera (above all, as Dow in Tippett's Knot Garden), in oratorio, and in song. In his native Britain he is almost an indispensable component of today's musical life. Elsewhere, I would guess, he is less likely to achieve the same sort of celebrity. The reason is a voice that lacks ease, charm, or sensuous appeal. The British seem able to cope with vocal production of this kind, as witness the love as well as esteem accorded to Peter Pears. The similarity of Tear's timbre to that of Pears is sometimes astonishing: the same white top notes, the curious creaking half voice, the mewing fable—indeed, the same kind of musicality, the commitment to interpretation at the expense of agreeable sound.

It is clear that Tear's artistic instincts are excellent. He brings the first song of Op. 39, "In der Freude..." to a wonderfully phrased, delicately shaded conclusion. He has the measure of the complex "Schöne Dienste," with its remote, ecstatic vision of joy. But for all the many glimpses of his intelligence and imagination throughout, the majority of these songs finally yield remarkably little in the way of meaning and imagination. "Waldegespräch," "Mondscheinet," and "Zwischen" from Op. 39, "Ich wandelte unter den Bäumen" and "Warte, warte, wilder Schiffsmann" from Op. 24 are especially uncommunicative in Tear's performance.

Partly the problem is vocal (this tenor lacks ease and variety), and partly the problem is interpretive (Tear, though he sounds inhibited, nevertheless lacks intimacy and inwardness). Often he is simply too fuzzy, the middle section of "Ich wandelte unter den Bäumen" being a case in point. Yet, surprisingly, Tear at the same time often ignores Schumann's dynamic markings, especially piano ones, and as a consequence falls into blandness. He begins "Lied der Liebe, jegländlicher", Op. 24, too loudly and quite misses the piece's macabre ruefulness.

Philip Ledger accompanies very well and has the advantage of an excellent recording. Texts and translations. D.S.H.


Ma**HLER**: Lieder und Gesänge aus der Jugendzeit: Scheiden und Maßen; Niedersicht; Der Schmücke Kinder an'ig zu machen; Frühlingsmorgen, Phantasie, Hans und Gretel, Ich ging mit Lust durch einen grünen Wald, Stärke Einbildungskraft, Ermühung.

Anna Reynolds is an attractive singer: the voice is warm, the scale even; she is musically skilled; she observes dynamic markings. But on the evidence of this recital (first released in England in 1969), she isn't really at home in the world of Lieder. The dimensions of the art song, it would seem, are too confining for her.

She sounds genuinely comfortable only in those passages where the music is forthright and slow. In fast, delicate music she is plainly uneasy. She attacks a piece like Mahler's jelly but light-fingered Um schimme Kinder an'ig zu machen in a gingerly manner, as though holding herself in for fear of bursting the music's confines. Forced by songs of this sort to scale down her voice, she sings with obviously diminished resources: Color drains from the voice; her breath runs out a few seconds before the ends of phrases; the tonal quality deteriorates.

All of which is not to say that there aren't many beautiful moments here. To take only one example: The management of the second half of Mahler's Phantasie, a hushed and tranquil reverie marked langsam, is wonderfully skilled. On the whole, Mahler's more dramatic style suits her better than Schumann's poetic introspection. In a song like Die Stille, where she tries to sustain an air of rapt joyfulness by means of a sustained mezzo forte sound, she sounds as if she is singing in a protracted stage whisper. The strain soon makes itself felt in fluttery and unsupported tone.

None of these strictures would matter as much as they did if she showed any special aptitude for infusing this material with poetic vividness—by the treatment of the words, or by variations in tone color. Though her operatic assumptions reveal her as a talented vocal actress, the dramatic nuances of Lieder do not elicit much response from her. She quite fails to distinguish between the voices in Schumann's Waldegespräch, for example, and Mahler's Stark Einbildungskraft, marked mit humorischem Ausdruck, is nevertheless unmoving.

Geoffrey Parsons accompanies ably. Clear recording and superb pressings, but, regrettably, no texts. D.S.H.

**SCHÜTZ**: Kleine geistliche Konzerte, Book II SWV 306-337. Herrad Wernung, Adele Stolte, and Gundula Bernhard, sopranos; Emmy Liskin and Frauke Haasemann, altos, Hans-Joachim Rotzsch and Johannes Hoell, tenors; Wilhelm Pommern, Jakob Stampf, and Johannes Kortendiek, basses; Westphalian Choral Ensemble; instrumentalists, Wilhelm Ehmann, cond. NÖNESUCH HD 73024, £13.92 (four discs).

Schütz established his reputation in Germany by being the first to import the lavish and splendid Venetian polychoral style of Gabrieli. His first German publication, in 1619, was a collection of psalm settings for an elaborate array of solos, multiple choirs, and multiple instrumental ensembles. Soon thereafter, however, the vicissitudes of the Thirty Years War forced the dissolution or drastic curtailing of musical forces in most of Germany's princely chapels, including that of the Saxony court in Dresden that employed Schütz, and he was never again able to write for such forces.

In the last decade of the war, Schütz published two books of Little Sacred Concertos, Book I, with twenty-four concertos, was published in 1636, and Book II, with thirty-two concertos, was published in 1639. Both are laid out in the same manner, containing short pieces (most last between three and six minutes) for
various combinations of one to five solo voices accompanied merely by the continuo. In only two concerts in Book I are short choral sections added, and two concerts in Book II (actually two versions of the same piece) include an optional choral close and a five-part instrumental sinfonia. In spite of the austere format, however, the sinfonia among Schütz's strongest, most incisive, most intensively expressive, and most perfectly proportioned works. Book I, incidentally, has also been recorded by Ehmann with practically the same soloists and instrumentalists (Nonesuch HB 73012, 1967).

Wilhelm Ehmann, one of the principal editors of Bärenreiter's new publication of Schütz's complete works, is also a first-rate choral man and conductor. Of course, his performances are stylistically accurate as well as beautifully prepared. I especially liked his decision to pass continuo responsibilities around among organ, harpsichord, and lute, which are joined by one or two violas da gamba and occasionally a dolcian as well. The five-part sinfonia (for unspecified instruments) is also played by gambas in one piece and gambas with recorders in the other. The vocal solos, though not quite of international superstar caliber, acquit themselves admirably nevertheless.

One could reasonably ask for rather more musical tension and excitement in many of these performances. Slightly faster tempos and more incisive rhythmic pointing would have helped greatly. Instead, Ehmann seems to be aiming for the smooth, controlled, "devotional" performance, which is often beautiful but rarely exciting. Still, this is the only complete recording of these remarkable concerted, and I do recommend it warmly. Texts and translations, as well as brief notes on each piece, are included in a carefully prepared booklet accompanying the discs.

What Turnabout calls Shostakovich's "Chamber Symphony" is merely a string-orchestra arrangement, these miniatures are among Shostakovich—of the Eighth Quartet, which can be heard in a slightly different version (with timpani) on a Russian disc. Since a similar reworking of the Tenth Quartet has already been dubbed "Chamber Symphony," somebody is going to have to come up with a new title.

The Eighth Quartet does work fairly well in its chamber-orchestra clothing, although there are points when certain figures do impose themselves rather heavily when played by an entire string orchestra. In any form, the work contains at least two sections of Shostakovich's gloom. Dedicated to the victims of fascism, the quartet seems to reach out to the tragedy of humanity, whether in the anguished fourth movement, which quotes a revolutionary song entitled Languishing in Prison, or in the frenzied second movement. It also is directly attached to Shostakovich's personal experiences through the inclusion of a

handful of themes from works ranging from the First Symphony to the First Cello Concerto. The quartet is, furthermore, pervaded by afour-note motif, around which the first and fifth movements are almost entirely based, that spells out Shostakovich's initials (in German notation) and that was earlier employed on the Violin Concerto and the Tenth Symphony.

Alexander Tcherepnin's lively and witty bagatelles are at the opposite end of the emotional scale. Although a certain Slavic melancholy is never very far away from some of the modal harmonies involved. This version for piano and string orchestra represents the third reworking of one of Tcherepnin's earliest (and most popular) compositions, and as with the Shostakovich, I tend to prefer the original version (in this case for solo piano). In a number of instances, the string orchestra seems to be there merely to serve up a few conversational countermelodies to the piano themes. But for several of the bagatelles, notably Nos. 3, 5, 7, and 10, the added forces contribute greatly to the general mood. As a whole, the bagatelles—which in this version return to the opening piece to close the work—form an immensely attractive concert piece.

The Nativité for string trio and string orchestra, part of a tryptich entitled La Mère by Russian-born, Paris-based Leo Mouравьев, has somewhat the flavor of an Eastern Verklärte Nacht. But even more so than Schoenberg's atmospheric masterpiece of tonal dissonance, Mouравьев's Nativité is a work with almost no movement whatever, at least in the Western sense. Sustained blocks of overlapping or intersecting sound drone along, bringing back theme fragments and slowly changing colors as one intervalic movement is replaced by another. Almost never allowing even a second of total silence to take over. It is a strange, rather difficult work basically quite unlike most compositions one is apt to hear, and it is definitely worth having on disc.

The Tcherepnin bagatelles receive the best performance. Both pianist Jürgen Meyer-Josten and the orchestra seem to delight in the general brightness of the work. The Shostakovich, although played with appropriate intensity, suffers here and there from less than precise entrances and some bad intonation, while the Mouравьев's Nativité is a work with almost no movement whatever, at least in the Western sense. Sustained blocks of overlapping or intersecting sound drone along, bringing back theme fragments and slowly changing colors as one intervalic movement is replaced by another. Almost never allowing even a second of total silence to take over. It is a strange, rather difficult work basically quite unlike most compositions one is apt to hear, and it is definitely worth having on disc.

The Eleventh was Shostakovich's first genuine program symphony, both the Second (October) and Third (May Day) were written for the Revolution but not about it, while the Seventh (Leningrad) unfurls more as a generalized tribute than as a musical narrative. The 1957 Eleventh, on the other hand, depicts freeswlake fashion the pre-Revolution uprising

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symphonies. (Even the vague movement titles Shostakovich subsequently eliminated from the Seventh suggested no specific dramatic progression.)

Atmosphere dominates the opening of the Eleventh Symphony, re-creating in the first movement the cold, deserted square of the Tsar's Winter Palace via such musical devices as long passages of sustained strings, frequently in hollow open thirds. Adding to the general desolation is the obsessive use by the composer of a G-minor/B-flat-major tonal landscape over which, from time to time, we hear distant trumpet and horn calls (strongly reminiscent of Mahler's Second Symphony) and a surprising, poignant major-key prison song played on the flute. Inasmuch as the palace square represents the main setting for the drama, long sections of the first movement are cyclically repeated in the second and fourth, the former opening with a theme first used by Shostakovich in one of his Op. 2 piano preludes and later in one of the Ten Revolutionary Hymns, Op. 88, which also furnished other material for the movement.

Between the pyrotechnics of the second and fourth movements, the third ("In Memorian") offers by far the best music of the symphony in a haunting viola theme later embellished with striking harmonies and countermelodies. The whole symphony comes on in a strongly cinematic flow, and parts of it have, in fact, been added post facto, along with parts of the Twelfth, to Eisenstein's silent classic, Battleship Potemkin.

Not unexpectedly, Kondrashin excels in the razzle-dazzle parts of the Eleventh; his breath-takingly paced treatment of the fugal second section of the second movement stands as one of the most overwhelming moments of musical fire and brimstone I have ever heard. But he captures very little of the ice-cold mood of the opening movement, and you have to hear Stokowski's tragically lyrical interpretation of the third movement (best heard on the original Capitol release) to realize just how loudly and insensitively Kondrashin handles it.

Enormous credit must be given, however, to Kondrashin and/or the album producer for the stunning instrumental balance. The various orchestral combinations take on an incredible breadth, while solo passages sound as clear as I have ever heard them on disc. With this, with the indisputable excellence Kondrashin is able to generate in much of the symphony, and with the one-disc format, it is hard to prefer Everest's two-disc reissue (a healthy sonic cut below the Capitol reissue, which in turn was less good than the original), in spite of Stokowski's incomparable performance.

R.S.B.


The Three Riders (with Miroslav Světek, tenor; Jindřich Jindřík, baritone, Jaroslav Horáček, bass), The Renade (two versions); The Peasant; Our Song; Festive Chorus; Song of the Sea; The Dedication; The Prayer; Two Stogans; Three Choruses for Female Voices.

Smetana apparently composed for chorus throughout his maturity, from his return to Prague in 1860 until a year before his death in 1884. He approached choral writing not by using native tunes, but rather as a musical realization of the essence of the Czech language. His texts are from traditional and contemporary poetry, and the subject matter is strongly national in feeling. A substantial number of the choral works offered here date from his last years, when his battle with deafness and illness endangered his sanity. That he composed at all is a tribute to his indomitable will-power.

None of the choruses here is for mixed voices; most are for men, only the last three for women. Smetana had studied the music of Bach, Palestrina, and Handel closely and had mastered choral technique in a highly individual manner, creating some highly original writing, thanks in large part to his concentration on the Czech tongue.

The full subtlety and impact of this music must perforce escape the non-Czech listener. But the detailed texts and translations will, with some effort, bring substantial rewards in an absorbing musical experience.

The Czech Philharmonic Chorus—or rather its two halves here—sings with fine tone, good intonation, and great precision. Though Smetana composed mainly for amateur choirs, he made considerable technical demands, and this fine group easily surmounts this challenge. The clarity of diction is greatly enhanced by the clear, if somewhat unresonant, recording.

The booklet contains an informative essay on Smetana's choral music and full Czech texts and trilingual translation. This is a noteworthy contribution in every respect. P.H.

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And what an opera! It's the only Somma/Verdi collaboration (Verdi had started, but never completed, setting Somma's King Lear libretto), which is a pity. The action is compelling and entertaining; the verses are stately, frequently elegant, and sufficiently varied in form to allow Verdi great freedom. Acts, scenes, and ensembles (what ensembles!) of every size, shape, and temper—never before had Verdi written with such consistent harmonic and rhythmic boldness and assurance; the melodies are not only unifyingly, lavishly first-rate, but also intimately contoured to the lines of the story. It is worth noting that Ballo is Verdi's only pre-Aida opera regularly performed without musical tampering.

All the currently available Ballo recordings have substantial merits. If someone were to do a new version with Calabèl and Domingo (assuming they could capture the electricity of their Met performances together several seasons back), conducted perhaps by James Levine, that might change the picture; until then, this reissue is for me the most complete representation of an astonishing opera. K.F.

VILLA LOBOS: Bachianas brasileiras: No. 2, for Orchestra; No. 5, for Soprano and Eight Cellos; No. 6, for Flute and Bassoon; No. 9, for String Orchestra. Marcel Gailègue, trombone (in No. 2); Mady Mesplè, soprano (in No. 5); Albert Tétard, cello (in No. 5); Michel Debost, flute (in No. 6); André Sénédat, bassoon (in No. 6). Orchestre de Paris, Paul Capolongo, cond. [René Challon, prod.] ANGEL S 36979, $5.98. Tape: • 8XS 36979, $7.98; • 4XS 36979, $7.98.

Between 1930 and 1945, Heitor Villa Lobos (1887-1959) wrote nine suites demonstrating his belief that it was possible to unite the musical idioms of his native Brazil with the more formal traditions of Europe. In the Bachianas brasileiras, polyphony is applied to folkloric materials. Villa Lobos believed that Bach was "a universal and rich folkloristic source, deeply rooted in the folk music of every country in the world." Using Bach as a kind of controlling inspiration—Bach, he once said, "is a mediator among races"—Villa Lobos attempted to mediate between present and past, between what he saw as his tasks and what he acknowledged as his debts, between his environment and his artistic heritage. The folkloric material used in these pieces is not authentic. All the melodies are original attempts to conjure up the atmosphere of the folk music of Brazil's northeastern region.

The results are certainly striking. At first hearing this is very attractive music, full of stylistic incongruities, but lush with late-impressionist sonorities, complex rhythms, and novelties of scoring. It is all immediately exotic and piquant, but also formally contained, not merely rhapsodic. Even so, it is hard to believe that the success of the fourth movement of No. 2 depends on its being a toccata. What delights us about the piece is its cleverness in scene painting, in musical imitativeness. This is the famous Little Train of the Caipira, depicting the sounds of a locomotive wheezing its way deep into the Brazilian hinterland.

There is another familiar piece of music on the present disc: the first movement of No. 5, scored for soprano and eight cellos and probably the work that introduced Villa Lobos' name to music lovers in this country. Bidú Sayão's celebrated 1945 performance of it (with Leonard Rose leading the cellos and the
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¹All power measurements taken at 120 volts/60 cycles, 8 ohms, 20Hz-20kHz, all channels driven simultaneously.
²Manufacturer's suggested list price which may be higher in some areas.

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.

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with its serial organization—more overtly concerned with color and communicative allure. Meyer Kupferman is even more intent upon seducing the listener with sound. Unlike the other two works, his tape consists not of synthesized sound, but of concrete playbacks of material previously recorded on the piccolo and the alto flute, while the live performer plays a regular flute.

Samuel Baron has long been identified with new music for the flute in the New York area, and his performances here are all first-rate.

J.R.

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THE SOUND OF BRAUN

CIRCLE 59 ON READER-SERVICE CARD


Before this reissue, subsidized by the Gulbenkian Foundation of Portugal, Jose Vianna da Motta (1866-1948) was merely a name to me. Da Motta, one of Liszt's last students but also shaped by Hans von Bülow, Xavier Scharwenka, and his close friend Busoni, made only a handful of recordings (all very rare) and in his last years played few concerts outside his native Portugal. IPL has assembled all of Da Motta's commercial discography (made for French Pathé in 1928-29) and adds his final live appearance (January 19, 1945), with orchestra, in Liszt's Totentanz.

The playing is anything but what you would expect from the last surviving Liszt pupil. Vianna da Motta was obviously an important artist, with a big technique and as stern a musical profile as you'll ever find. Not for him the lush, singing tone of a Rosenthal or the grace of a De Gheer. There are slight period mannerisms, but they are as nothing compared to the lurching of a Friedheim. Da Motta wore the mantle of "intellectualism" like a coat of armor, and like a coat of armor, this is as spiky and hard and unlovely as any pianistic style I've heard. That style—acid, dogmatic, and laden with emphatic Teutonic downbeats—is probably closer to the clenched-fist style of Bülow than to the mellower wisdom of Liszt.

In the absence of any evidence, the latter point is of course conjecture; but there is ample evidence here for disagreement with the annotators of the excellent accompanying booklet that Da Motta founded a new tradition that gave us pianists like Artur Schnabel and Edwin Fischer, who rejected Romantic excesses. Fischer was a dyed-in-the-wool Romantic who happened to like Bach, Mozart, and Beethoven better than he did Moszkowski (just listen to the unstylistic cadenzas he wrote for Mozart and Beethoven concertos). And Schnabel, with his beautiful, expansive singing style in slow movements, while more "modern" than Fischer, was lyricism itself when set alongside Da Motta's asceticism. No, Da Motta's style is much more akin to that of Eduard Steuermann and his disciples. In truth, I find little about his playing to enjoy.

The Chopin polonaise is conceived with enormous breadth but with little line. Detail is precise, but the constant emphasis on downbeats effectively prevents the music from taking wing (as it does with Lhevinne and Rubinstein). The Schubert movement is as taut as, and charmless as could be. I am certainly no admirer of kitsch in Schubert, but this opposite extreme is no better.

The Busoni Elegie and Liszt Eglogue, on the other hand, benefit from the analytical succinctness of Da Motta's approach (though both could stand more color), and his own pleasantly tonal compositions are engagingly played. The vile Busoni perversion of the finale of Mozart's K. 459 Concerto (in which a Mille, de Castello Lopes joins our anti-hero at the second piano) is rather stimulating in its efficient, vehemently accented, hard-bitten way, and the live performance of the Liszt Totentanz (in which the uncouth sounds of the Portuguese orchestra appropriately enough re-create the wheezing and rattling of lively skeletons) shows that he kept his formidable equipment, but not all his metric sureness, to the end.

All transfers are well done.

H.G.

Victorian Songs. Robert Tear, tenor; Benjamin Luxon, baritone. André Previn, piano. [John Mordler, prod.] ANGEL S 36975, $5.98.
The restoration of Victorian culture to critical favor after a long period of denigration has finally spread from literature to painting, and now, if the stirrings in contemporary Britain are anything to go by, seems likely to reach music. It is not many years since Evelyn Waugh in A Handful of Dust could imply that reading the collected works of Charles Dickens was a form of living death, and a much shorter time since the Tate Gallery in London confined most of its pre-Raphaelite canvases to the basement storeroom.

Even so, Victorian music is going to have a hard time re-establishing its credentials. Elgar, who came at the end of Victoria's reign, does not languish in oblivion. Neither does Sullivan. But Balfe, Bishop, Benedict, Cowen, Liza Lehmann, Macfarren, Mackenzie, Parry, Stanford, and Sterndale Bennett—to take only the most distinguished names of the age—have never been the subject of a symposium. Not from Elgar and Sullivan—remain shrouded in an obscurity so thick as to suggest permanence.

The examples we are offered by Sir Julius Benedict (1804-85) or Michael Balfe (1808-70) do not intimate that anything of consequence by these composers awaits re-discovery. The former's "Carnation of Venice," already famous, is a fair example of his work, while the latter's "Bohemian Girl" is hardly likely to stand revival more than once every other generation.

What is adumbrated by this recital (Sullivan and Offenbach excepted) is a backwater of music. It is hard to believe that these songs ever were, or indeed ever could be, of more than local consequence. Even for British listeners, I imagine that their real interest is less musical history than cultural nostalgia. They bring back a world of domestic tranquility, in which the drawing-room ballad could flourish unchecked. They are redolent of long-vanished confidence, of energy, of moral and ethical imperatives, of easy sentiment. Most of them call upon their auditors either to gird their loins or to shed a sympathetic tear, and sometimes—as witness Balfe's "Excelsior"—they ask for both.

"Excelsior," a wretched tune foisted upon Longfellow's wretched poem, demonstrates some of the essential characteristics of Victorian song: the combination of action, inspiration, and introspection or, put another way, the call to duty, the enjoinder to solemnity, and the incitement to feeling—the first martial, the second hymnal, and the third (and by far the most common) Italianate. But none of these elements achieves much distinction. Dvořák's "Trumpeter" no longer stirs. Nor does Marriott's "Saved from the Deep" inspire. Nor does Haydn's "The lark now leaves his wary nest!" charm. Haydn's Donizetti cantilena, like that of Balfe's "Come into the garden, Maud," is pedestrian. "Victorian Songs" could serve as a justification for Nikisch's indictment of England as Das Land ohne Musik.

This recital, however, should not be taken as a completely authentic sampling of Victorian song. Despite the silence of the liner notes on these matters, several of the selections are in fact arrangements of excerpts from stage works. Sullivan's "The Dicky Bird and the Owl" comes from Cox and Box, Benedict's "The moon has raised her lamp above" from the opera The Life of Kilmar, and Offenbach's Gondarmes' Duet from the opérette Geneviève de Brabant, translated into English by one Farnie. Moreover, Haines' "Cigarette" is Edwardian. Dibdin's "Tom Bowling" is Georgic (it formed part of the composer's so-called "table entertainment" The Oddities, first performed in 1789, thirty years before the birth of Victoria); and "The Death of Nelson," dating from 1811, is Regency. In addition, the latter was featured in the opera The Americans.

It is doubtless significant that the three non-Victorian numbers are the best part of this recital. "Cigarette" is a beguiling waltz, "Tom Bowling" a jolly quasi-folk ballad, and "The Death of Nelson" a disturbingly sincere patriotic narrative.

Each side of this record begins and ends with a duet. Otherwise the material is apportioned between tenor and baritone. Tear's lack of charm and unattractive vocal timbre are impediments to pleasure. His enunciation needs attention: In the Brahms piece he sings of "Bruit Shoak," Luxon is more agreeable to listen to, but he sometimes forces (as in "The Trumpeter") and he comes nowhere near the sensuous grace of "Cigarette." His quick vibrato and Tear's white tone do not blend well in the duets.

The only really satisfactory feature of this recital is the playing of André Previn, who is excellent. No texts, inadequate notes.

D.S.H.
the lighter side

reviewed by
MORGAN AMES
ROYAL S. BROWN
R.D. DARRELL
HENRY EDWARDS
KENNETH FURIE
MIKE JAHN
JOHN ROCKWELL
JOHN S. WILSON

**RITA JEAN BODINE:** Sitting on Top of My World, Rita Jean Bodine, vocals, piano, and songs; rhythm and vocal accompaniment; Wheels; Ain't You Glad: I Was Mistaken; seven more. [Carol Carmichael, prod.] 20TH CENTURY T 431, $5.98.

The more I review, the more I realize how foolish it is for anyone, artists included, to look at reviews as anything but entertainment. For it is just as easy to bring one's weight to bear liking an album as disliking one.

I like Rita Jean Bodine. She is new, and her first album knocks me out. Ms. Bodine sings hard in about thirteen different voices, having to see from measurement to measure. Somehow it all knits together into one force. Or maybe I relate too well to people who go six ways at once. The lady isn't kidding around; she knows what she feels in a song and is not afraid. Ms. Bodine is white with a feeling for black. Some people don't like that, take offense, complain of phoniness. But black or white is not the point. Diana Ross has a feeling for white, and who cares? The point is that there is space for what is real and good. Small minds enjoy ripping into that truth, to no avail. There's always a Janis Joplin and a Charley Pride around the bend making people disregard the black/white bull.

One of the major reasons for the quality of this album is its producer, an L.A. lady named Carol Carmichael. The daughter of singer Vangie Carmichael, Carol spent several years as a top call studio singer (she still is) before branching out into production and writing. From what I can tell. Ms. Carmichael pinned Ms. Bodine perfectly in terms of how to present her best, and it cannot have been easy. The album was recorded, for the most part, at Dubbington Downs, which is a 16-track studio Carol built in her home in the Hollywood hills, presumably on money made from singing commercials and such. Ms. Carmichael is also responsible for all the writing and a great deal of the singing of the background vocals. They are the best I have ever heard—and I hear everything.

On one track, Do You Think of Her, Ms. Bodine accompanies herself on solo piano, playing with great warmth and beauty in contrast to her sometimes jazzy vocal style. On many other tracks the keyboard playing is by David Paich, son of Marty Paich, and is beautifully sparse and well placed.

Seven of the ten songs in the set are by Ms. Bodine, whose writing is natural and loose-limbed if not particularly deep and thoughtful. She tends to write about the men who have hurt and/or left her, but she sometimes saves her case with humor. What is not saved in content gets saved in treatment.

As a debut album, this one could have hit harder in the commercial market. As it is, I could envision it coming out as one second after two successful predecessors. On the other hand, artists such as Joni Mitchell survived on quality albums from the start (though she never had real success till her current set, her sixth or seventh).

Had Ms. Carmichael and artist Ms. Bodine gone all-out for the hot singles market, they would have betrayed that fragile thread that is the core of the reason for working at all.

Failing at commerciality is not necessarily a failure these days, if you succeed at the more honorable task; expressing the realest and best of an artist. These ladies may just have foisted themselves into the charts. If not this time, it will happen next time out. Godspeed. M.A.

**PAPA JOHN CREACH AND ZULU:** Playing My Fiddle for You, Papa John Creach, violin and vocals; Carl Byrd, drums, percussion, and vocals; John Parker, clarinet, organ, celesta, and vocals; Holden Raphael, congas, percussion, and harmonica; Kevin Moore, guitar and vocals; Sam Williams, bass. Friendly Possibilities; Milk Train: I Miss You So; six more. [Al Schmitt, prod.] GRUNT BFL 1-0418. $6.95. Tape: • BFS 1-0418, $6.95; • BFK 1-0418, $6.95.

On this collaboration, that swinging fiddle man Papa John Creach is as musically impeccable as ever, but Zulu's backup band, is uninspired. Friendly Possibilities, for example, suffers from a bland lyric and a pedestrian vocal; I Miss You So, another bluesy, rhythmic tune, wears itself out way before it's finished. This disc comes to life only when Papa John is front and center.

On String Jet Continues, John does soar magically away; this pulsating instrumental, alternating between the hot and the cool, is totally listenable all the way through. Creach is still looking for the ideal format for his talents. He deserves to find it.

H.F.

**LOU REED:** Rock n Roll Animal. Lou Reed, vocals; Dick Wagner and Steve Hunter, guitars; Prakash John, bass; Ray Colcord, keyboards; Pentta Glen, percussion. Intro/Sweet Jane; Heroin; White Light/White Heat; Lady Day; Rock n' Roll. [Steve Katz and Lou Reed, prod.] RCA APL 1-0472, $5.98. Tape: • APS 1-0472, $6.95; • APK 1-0472, $6.95.

Reed backs off from the sophisticated image he established in his last album, "Berlin" (APL 1-0207). But the shift in direction doesn't mean a decline. "Berlin" was one of the finest examples of "art rock" in recent years; "Rock n Roll Animal," as the title implies, is a reversion to basic, gut-level rock.

Most of the material here dates back to the late Sixties and Reed's Velvet Underground days. Devotees of that band may resent the longer, more tightly executed versions on this new disc and complain about how the instrumental excursions divert attention away from Reed. But the new band does sound tight and exciting in its basically conventional way, and the record—recorded live last December at New York's raunchy Academy of Music—most successfully captures the hard-core energy of the evening.

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* For a description of the research, see the article entitled, "Sound Recording and Reproduction," published in TECHNOLOGY REVIEW (MIT), Vol. 75, No. 7, June '73. Reprints are available from BOSE for fifty cents per copy.
This British band is one of several that take medieval or pseudo-medieval themes and add them to a rock beat. Pentangle, the leader in the field, is much more quiet, dignified, and respectful of the original compositions. Fairport Convention uses the originals like a steel mill uses ore: to make something modern and polished and to make a lot of smoke on the side.

This, the group's ninth album, ranges from treatments of such museum pieces as The Hexhamshire Lass, which is changed slightly, to full rock arrangements like Bring 'em Down, an original composition by Trevor Lucas which has the ring of a traditional British folksong.

Melvin Van Peebles: What the... You Mean I Can't Sing?! Melvin Van Peebles, vocals and songs; Harold Wheeler, arr. and cond. So Many Bars; Eyes on the Rabbit; A Birth Certificate Ain't Nothin' but a Death Warrant Anyway; five more. [Melvin Van Peebles, prod.] ATLANTIC SD 7295, $5.98. Tape: • TP 7295, $6.97; • CS 7295, $6.97.

I look out at Melvin Van Peebles from another culture and find, because of the power behind his talent, that he can intimidate me far more easily than he might know. Of all the black talents in this business, none is more black than Van Peebles. He pounds away at it; the anger and the outrage, the rape and the raped human. The right in the middle of such a presentation—when I as a white listener am accepting the best I can, perceiving, digesting—suddenly he switches his focus completely and brings us down into a moment, a feeling so human and touching that it has no color.

So in this album Van Peebles—again with the sociological A Birth Certificate Ain't Nothin' but a Death Warrant Anyway and goes on with Save the Watergate 500, a study in the writer's special brand of irony. Then, when I am armored and ready for this level of things, he comes along with an absolutely extraordinary piece of material called Eyes on the Rabbit, a narrative in which a man looks backward to the best love he ever had.

It is difficult to imagine anyone producing Van Peebles but himself. This holds true of his interesting film projects as well. He seems to thrive on resistance and dismay. He often has amazing success and amazing failure in all the same year. His bio says that he refuses to be blackmailed by either.

This is Van Peebles' first album on Atlantic. It is much more albumlike than his earlier efforts on A&M, a company that didn't know how to sell him (which I can understand). This is a far more accessible album. So Many Bars is a "regular" song, country-oriented, flowing, sung in ragged but real style. The point is that it could be covered by other artists. One could not have said that of earlier Van Peebles work.

Is it possible he is mellowing? Melvin Van Peebles is one of the great, weird, original, and dazzling talents of both film and music. If he were a player in a hot rock-and-roll band, he would be the one with his amp turned up full. He likes to be heard. Raw as he is, he is hard to resist. More power.

Fairport Convention: Nine. Jerry Donahue, guitar; Trevor Lucas, vocals and guitar; Dave Mattacks, drums, keyboards, and bass; Dave Pegg, vocals, bass, and mandolin; Dave Swarbrick, vocals, violin, viola, and mandolin. The Hexhamshire Lass; Polly on the Shore; Bring 'em Down; Big William; five more. [Trevor Lucas and John Wood, prod.] A&M SP 3603, $6.98. Tape: • ST 3603, $7.98; • CS 3603, $7.98.

This British band is one of several that take medieval or pseudo-medieval themes and add them to a rock beat. Pentangle, the leader in the field, is much more quiet, dignified, and respectful of the original compositions. Fairport Convention uses the originals like a steel mill uses ore: to make something modern and polished and to make a lot of smoke on the side.

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Slade: Stomp Your Hands, Clap Your Feet; Noddy Holder, guitar and vocals; Jim Lea and Dave Hill, guitars; Don Powell, drums. Just Want a Little Bit; When the Lights Are Out; Find Yourself a Rainbow: seven more. [Chas Chandler, prod.] WARNER BROS. BS 2770, $5.98. Tape: • M82770, $6.97; • M 52770, $6.97.

This English rock band makes uninhibited, raunchy, vulgar music, and the result is as cheerful as cheerful can be. Slade is one of the better rock bands, and "Stomp Your Hands, Clap Your Feet" is one of the better rock discs.

Do We Still Do It, a potent rock anthem, has the potential to be one of those dancing-in-the-aisles standards, and Good Time Gals, replete with dozens of double entendres, is a jolly comedy tune of manners that is also bound to be around for a while. Slade varies its set by performing Find Yourself a Rainbow, a tribute to the band's music hall roots.

For the most part, however, it's the loud, naked raw energy that makes the group such an exhilarating experience.

Jim Webb: Land's End; Jim Webb, vocals, songs, keyboards, and arrangements. Alice Blue Gown: Ocean in His Eyes; It's a Sin; seven more. ASYLUM SD 5070, $5.98. Tape: • TP 5070, $6.97; • CS 5070, $6.97.

I am the first and maybe final reviewer/member of the Jim Webb-as-Artist fan club. People keep telling me that Webb is a fine songwriter and all, but no singer. Eventually Jim Webb and I will prove ourselves right.

In the meantime, Webb continues with that kind of dogged, unsupported courage of his convictions that distinguishes the truly driven person.

This time, for diversion or to avoid local cynicism or just for the hell of it, Webb went to London to record. The outcome was mixed, and he returned to Los Angeles to repair, remix, and sweeten the tracks with the quiet and steadfast help of Henry Lewy, the engineer

MJJ

The Pointer Sisters: That's a Plenty. The Pointer Sisters, vocals; Gaylord Birch, drums; John Neumann and Ron McClure, basses; Tom Salisbury and Herbie Hancock, keyboards; Bonnie Raitt, slide guitar; instrumental accompaniment. Bangin' on the Pipes: Steam Heat; Salt Peanuts; Fairy-tale; Black Coffee: five more. [David Rubinson, prod.] BLUE THUMB BTS 6009, $5.98.

This is the Pointer Sisters' second album, and it is very fine. All the characteristics that have accounted for their rapid fame—tight, deviously ingenious part-singing, invigorating rhythmic alertness, clever selection of material and arrangements—are here. But there is also a nice variety to the songs, and one of their own numbers, Fairy-tale, actually turns out to be a sleepy c&w ballad. Those who have suspected that the Pointer Sisters would die out along with the nostalgia boom that gave them birth may think otherwise after hearing this disc.

Willie Nelson: Phases and Stages. Willie Nelson, guitar and vocals; Fred Carter Jr. and Pete Carr, guitars and dobro; John Hughey, pedal steel guitar; Johnny Gimble, fiddle and mandolin; Barry Beckett, keyboards; David Hood, bass; Roger Hawkins, drums; vocal and instrumental accompaniment. Phases and Stages Theme. Washing the Dishes; Pretend I Never Happened; Bloody Mary Morning; seven more. [Jerry Wexler, prod.] ATLANTIC SD 7291, $5.98.

This exceptional country album has an overall theme: the story of the breakup of a marriage. Side 1 is the woman's side. Side 2 the man's. The songs are connected by the Phases and Stages Theme, a short recitative ditty about things coming full circle. Nelson sings in a striking, hard-bitten voice and writes powerful songs, the best of them being Pretend I Never Happened and Bloody Mary Morning.

Rock musicians have employed unifying themes for six or seven years now, but few country artists have considered LPs more than a place to stick songs. Nelson's example may change that.

The Pointer Sisters: That's a Plenty. The Pointer Sisters, vocals; Gaylord Birch, drums; John Neumann and Ron McClure, basses; Tom Salisbury and Herbie Hancock, keyboards; Bonnie Raitt, slide guitar; instrumental accompaniment. Bangin' on the Pipes: Steam Heat; Salt Peanuts; Fairy-tale; Black Coffee: five more. [David Rubinson, prod.] BLUE THUMB BTS 6009, $5.98.

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J.R.
who records Joni Mitchell, Joan Baez, and others. Chances are strong that what is better than what was.

The extensive background vocals come from the joint efforts of Webb, his deeply talented sister Susan, and friend Joni Mitchell. Their work together is spectacular on *Feet in the Sunshine*, particularly its tag, performed nearly a cappella. Susan performs on a special duet with her brother on parts of *Crying in My Sleep*.

I have always liked Jim Webb for his extravagance. In a world and an industry that try, from pain, to play safe, Webb goes too far. His violin parts alone are absurd: elaborately worked out, soaring with countermelodies. He likes big orchestras and big colors. This is not to say he is disciplined or even well schooled; he is a chance-taker with excellent musical intuitions that only occasionally go wrong. I must note that the drummer on many of the tracks makes me crazy, playing big and hoomy. The original recordist seems to have accented him instead of compensating. This makes *Asleep on the Wind* overblown, even for me.

One of the difficulties people have with Webb is that his songs are quite different from his singing. This is not the case with such artists as James Taylor, Elton John, and Bill Withers. Webb’s songs have romance; his singing has an edge, a roughness we associate with harder music. The blend produces a highly personal and controversial mood.

Webb made his Grammy-winning mark as the composer of such songs as *Up, Up, and Away*. By the Time I Get to Phoenix*, and *Wichita Lineman*, all sung by “pretty” artists like Glen Campbell and the Fifth Dimension. Webb was still in his teens when he had his first hit with *Up and Away*; a track he arranged, and produced, as I recall. Teenage stardom produces pressures that few can survive. He is still recovering, growing. The innate sophistication of his music belies his Oklahoma roots, producing another problem.

Webb writes mostly songs. He is the relentless victim of his loves, putting him squarely in the tradition of American popular songs (*I Don’t Stand a Ghost of a Chance with You*, ad infinitum). While few contemporary troubadours write better in this place, I am ready for Webb to move on, to expand. I’d like to see him put his power to bear on a love song in which he gets something.

I look forward to Jim Webb’s future. M.A.

**DEODATO/AIRTO: In Concert.** Eurim Deodato, electric piano; Airto Moreira, percussion; John Tropea and David Amara, guitar; Hugo Fattoruso, piano; vocal and instrumental accompaniment. Do It Again: *Spate of Summer; Parana; Tropaea; Branches.* [Creed Taylor, prod.] CTI 6041, $5.98. Tape: CTB 6041, $6.95; **CTC 6041, $6.95.**

**AIRTO: Fingers.** Airto Moreira, vocals and percussion; Flora Purim, vocals and percussion; David Amara, guitar; Hugo Fattoruso, keyboards and harmonica; Jorge Fattoruso, drums; Ringo Thielmann, bass. *Fingers; Romance of Death; Merry-Go-Round; Wind Chant; Parana; San Francisco River; Tombo in 714.* [Creed Taylor, prod.] CTI 6026, $5.98. Tape: **CTB 6026, $6.95; CTC 6026, $6.95.**

I have been listening to the Deodato/Airto “In Concert” album trying to determine who exactly plays what. The headliners do not, in fact, play together, and the liner notes offer few clues. After much consideration, I assume that half the tunes are by Deodato and his band, and half by Airto and his.

The Deodato ones, such as *Do It Again* and *Spirit of Summer*, are the best—like examples of sultry, sensuous pop jazz. The Airto recordings are too loose and uncoordinated. The percussionist does much better on the studio LP *Fingers*.

The blend of jazz, rock, and Latin is carried off with grace and imagination. M.J.

**MAGGIE BELL: Queen of the Night.** Maggie Bell, vocals; Reggie Young, Cornell Dupree, John Hughey, and Hugh McCracken, guitars; Richard Tee, Arthur Jenkins, Leon Panzarino, and Barry Goldberg, keyboard; Chuck Rainey and Bil Salter, bass; Steve Gadd, drums; Ralph McDonald, percussion; Sweet Inspirations, background vocals; horns accompaniment. *Cadet Queen; Souvenirs; Queen of the Night; Oh My My; seven more.* [Jerry Wexler and Antisla Music, prod.] ATLANTIC SD 7293, $5.98.

Maggie Bell used to be the lead singer of a British group called Stone the Crows, which broke up a few years ago. Now, after a couple of earlier tries, she has produced her first solo album, released simultaneously in Britain and this country.

It’s worth the wait. Miss Bell, who has already attained enormous popularity in her native country, will no doubt do the same here. The parallel is obvious but inevitable: This is the best Janis Joplin-type voice since Janis’ death. There is the same manic intensity, the same husky passion in the singing, the same remarkable approximation of a black sound from a white throat. This excellently produced album is full of good things and well worth hearing.

**CHARLIE RICH: Very Special Love Songs.** Charlie Rich, vocals, orchestral and vocal accompaniment. *A Very Special Love Song; Why Don’t We Go Somewhere and Love; Take Time to Love*; eight more. [Billy Sherrill, prod.] EGC KE 32531, $5.98. Tape: **EA 32531, $6.98; ET 32531, $6.98.**

Charlie Rich is a mellow-voiced country-and-western singer whose style can be described only as exaggerated corn. He is, however, totally devoted to his lush, crooning approach, and he is an effective balladeer.

This collection of ballads finds him at his best. One may feel that an entire album of throbbing Rich performances is the equivalent of taking a dip in a sea of cotton candy, but for those who like sweet, “Very Special Love Songs” is a bona fide necessity.

**AHMAD JAMAL: Jamaicla.** Ahmad Jamal, keyboards; Richard Evans, bass; Brian Grice, drums; background vocals; Richard Evans, arr. and cond. *Ghetto Child; Along the Nile; Children Calling*; six more. [Ahmad Jamal and Star Point Seven, prod.] 20TH CENTURY T 432, $5.98.

Ahmad Jamal was always a warm and mellow artist, but something new has happened to him: 20th Century Records. This is the company headed up by a dynamo named Russ Reagan, who is largely responsible for the recording success of such people as Barry White, Maureen McGovern, and the DeFrancers. In short, if Reagan is on your case, your case is it.

This is Jamal’s second album on 20th. While the first was bought as a master (perhaps sweetening and other work was done before actual release), I suspect that Reagan had more of a hand in the spirit of this set. It is more commercial, a word that is not necessarily dirty. In this case it means accessible, pointed, going somewhere. Jamal sounds fresh and clear, gentle and powerful, and impeccably tasteful, with the seasoned help of arranger/bassist Richard Evans.

The title tune, *Jamaicla*, was written by Jamal, Don’s *Missunderstand* is by photographer/filmmaker/composer Gordon Parks. Jamal has come up with the best-yet version of Johnny Mandel’s theme from *Mash*. Also included are songs by such mainstream R&B writers as Thom Bell, Linda Creed, and Marvin Gaye.

I admire Jamal for moving toward the larger market instead of going the other way, as do so many less secure jazz musicians. The fact is that hands can and do meet over the endless number of styles prevalent. Some artists respond to that information, some do not. Jamal certainly does.

**DAVID BROMBERG: Wanted Dead or Alive.** David Bromberg, vocals and guitar; vocal and instrumental accompaniment. The Holdup; Someone Else’s Blues; Statesboro Blues; Church Bell Blues; Wallflower; five more. [David Bromberg, prod.] COLUMBIA KC 32717, $5.98. Tape: **CA 32717, $6.98; CT 32717, $6.98.**

Bromberg is an excellent New York studio musician who is rushing headlong into a career as a rock star, and musically, at least, it isn’t working. Bromberg, a tasteful, inspired guitarist, is particularly adept at blues. He made his name playing lead guitar for Bob Dylan on the “New Morning” album. Now he
releases albums, mostly of blues and songs with blues derivations, with masterful playing, mediocre-to-bad lyrics (on his own songs), and dreadful singing.

Everyone knows that a star writes and sings his own songs, so that's what Bromberg does. I wish he would content himself with the role of interpreter. It is not a bad profession: Some of the world's best musicians have been "only" interpreters; not everyone can be a Beethoven. When Bromberg does play a good song by someone else—such as Dylan's "Wallflower"—he does very well.

**CHASE:** Pure Music. Bill Chase, trumpet; Wally Yohn, keyboards; Jay Sollenberger, Jim Oatts, and Joe Morrissey, trumpets; Tom Gordon, drums; Darranjan Brown, bass; John Emma, guitar. *Weird Song # 1: Run Back to Mama: Love Is on the Way; three more.* [Frank Rand, prod.] ERC KE 32572, $5.98. Tape: ⋆EA 32572, $6.98. ⋆ET 32572, $6.98.

Chase is a jazz band that plays loudly enough to appeal to a rock audience and so has been called *jazz rock.* The group sports three trumpeters and a keyboard player who is fond of the synthesizer, and if that gives you a hint that there is a lot of upper-register muck ing around, you are right. *Weird Song # 1,* typical of Chase, is as it says: weird. It has a lot of punchy squeaks from the brass and improvised humblebees from the synthesizer. It's exciting music but only for a time. It becomes grating, especially if you hear the band in person or play the record through speakers that favor treble.

**JOHN DAVIDSON:** Touch Me. John Davidson, vocals; Mike Post, Pete Carpenter, Lenny Stack, and Mike Melvoin, arr. *Gone: You and I: We Had It All; eight more.* [Mike Post, prod.] 20TH CENTURY T 429, $5.98.

You've got to hand it to John Davidson. He has survived a number of style changes, is still making it, and still looks twelve—or anyway, younger and more innocent than he can possibly be.

When there was a standards market, Davidson was in the middle of it, robust and stagey, all *June Is Bustin' Out Over and Sound of Music.* Why not? It was happening.

Now the *Cosmopolitan* male centerfold is happening, and last month John Davidson was it. This album is within that image—freer, carefully sexy, contemporary. Anyone who thinks such image changes are easy or fun is an idiot. They usually occur after long soul-searching on a sink-or-swim basis. Davidson had no choice, and I think he met the challenge honestly.

He has retired his big, Goulash-type voice and gotten in touch with the simpler sound imperative for singing most contemporary songs. Simple or not, the old Davidson polish is there.

The only song I recognize here is Jim Croce's *I'll Have to Say I Love You in a Song.* Others are by such writers as Troy Seals, Tom Bahlor, Teddy Randazzo.

One song on the album bugs me: *I Am Not Yours, You Are Not Mine* by Brian Foley, a preachy song of alienation and paranoia. It is not the structure but the message that turns me off. If it's a hit, I'll break my car antenna.

Davidson has strength and persistence. This album is the musical equivalent of the Davidson you see on television—pleasant if not profound, entertaining if not deep. Definitely okay.

**Martha Velez:** Matinee Weepers. Martha Velez, vocals: vocal and instrumental accompaniment. *Best Thing on the Block: Do Right Woman, Do Right Man: Mocking Bird:* seven more. [Mike Vernon, prod.] Sire SAS 7409, $5.98.

Martha Velez is a singer in the blues-rock vein with a style akin to several others, such as the late Janis Joplin and Maria Muldaur. Her latest recording is well done, complete, and rather exciting. Only one tune, *Mocking Bird,* falls short—and then only in comparison with the version by James Taylor and Carly Simon.

But, as competent as it is, this disc is not sufficiently different from a number of others. Miss Velez is a fine performer. If only she weren't working in such a limited field.

**theater and film**


What can you say about *Gone with the Wind?* The film is the epitome of everything good and bad about Hollywood, and much the same can be said about the score. Yet even the most devout cynic will have difficulty turning himself off from the unmistakable tragic grandeur of the film, and few scores have been woven as thoroughly into the fiber of a movie as Max Steiner's magnum opus.

Indeed, even if Steiner had gone no further than the celebrated Tara theme, he would have contributed one of the most soul-gripping themes ever devised. Just as the estate called Tara dominates *Gone with the Wind* with a presence greater than the destiny of its inhabitants, so does the Tara theme both sum up and supersede the drama involved. But the score as a whole certainly contains many of Steiner's best moments—one reason being, I feel, the avoidance of the Viennese whipped cream that sugar-coats many Steiner scores in favor of a more probing idiom that often has, at least to my ears, a decidedly Slavic ring to it (note, for instance, the rather Tchaikovskyan theme associated with Scarlett and Ashley).

As recorded here, the *Gone with the Wind* music benefits from the magnificent sound typical of RCA's "classic film scores" series. And it is played—excellently—in its original, full orchestration and includes some previously unrecorded excerpts, with everything arranged into an extensive suite that captures the essence of the film better than any of the previous recordings.

My objection is again one of priorities. *GWTW*—both film and score—has to be one of the most overexposed of cinematic commodities. RCA does in fact have Herrmann, Rózsa, and Waxman projects in the offing, but these were delayed while we were given yet another
they capture and project the style and feelings of Morton's own recordings, Hyman, with one exception (Black Bottom Stomp), has not followed Morton's orchestrations. Instead, he has written arrangements for a big band (seven pieces) and a small ensemble (ten pieces) based primarily on Morton's piano solos rather than the Peppers' performances.

Since he is not locked into the Peppers' arrangements, he has a freedom to develop his own orchestral ideas but always in close relationship to Morton's conceptions of his tunes. The results are absolutely magnificent, opening up new potentials for Morton material far beyond his own orchestrations.

Hyman has brought together a superb set of musicians for this purpose. Number one among the soloists is Kenny Davern, playing soprano saxophone and clarinet with slight echoes of Sidney Bechet that contribute both fire and a sense of period style, particularly on Pep and Budd: Golden's Blues and in a duet with Phil Bodner on Fickle Faw Creep. Joe Wilder on trumpet (gorgeously sinuous on The Crease), Vic Dickenson on trombone (lovingly lewd on the same number), as well as the strong rhythm support of Tony Mottola's banjo and Don Butterfield's tuba are constant joys. As if this weren't enough, Joe Venuti is on hand to lead quartet performances of Perfect Rag, hitherto known only as a piano solo, and Shreveport Stamps, on which he reworks the role originally played by clarinetist Omer Simeon. Hyman has self-effacingly included only a single piano solo, the rollicking Finger Breker, but his piano is a guiding, tone-setting factor all through the set.

This collection is not only marvelous Morton, but also one of the most stimulating big band performances recorded in a long time. J.S.W.

NINA SIMONE: A Portrait of Nina. Nina Simone, piano and vocals; guitar, bass, and drums accompaniment. Four Women: Sinnerman, Strange Fruit; seven more. Trip TLX 9521, $5.98 (two discs). Tape: • 8T 9521, $6.98. • CAT 9521, $6.98.

Nina Simone's performances, both in person and on records, have been so erratic in the past few years and so often lacking in the effective theatricality of her earlier work that this set comes as a very pleasant surprise, particularly since the Trip label has been associated— in my mind, at least—with recordings of a variety of obscure sources that often leave a lot to be desired in sound quality.

This is top-drawer Simone—Nina building her atmospheric situations, projecting that strong sense of involvement that is at the heart of her best work. And the recording is uniformly good, aside from a slight shallowness of sound on two songs, even though the material has been taken from club dates in Washington and Chicago and a concert in Berkeley. The dates suggest why these performances do not have the flaws of her recent work: 1960, 1962, and 1970.

A very important part of Miss Simone's art lies in the way she works to and with an audience. She is in ideal circumstances here, playing to club and concert audiences, and her performances match the circumstances. This set captures the often elusive essence of her very individual way of building a song. J.S.W.
THE NEW BLACK EAGLE JAZZ BAND: On the River. Tony Pringle, cornet; Stan McDonald, soprano saxophone and clarinet; Stan Vincent, trombone; Terry Waldo, piano; Pete Builes, banjo; Eli Newberger, tuba; Pam Pameijer, drums. Oriental Race: Dans les Rues d'Antibes: five more. Dirty Shame 2002, $5.50 (Dirty Shame Records, Box 5217, Hannegan Station, St. Louis, Mo. 63139).

The New Black Eagle Jazz Band is a group of part-time musicians (business and professional men at other times) who play every week at the Sticky Wicket Pub in Hopkinton, Massachusetts. They had been together almost two years when they made this recording at the St. Louis Ragtime Festival in the spring of 1973. The Sticky Wicket gigs must have had their effect: this disc is several steps ahead of the band's commendable first record made nine months earlier (GBH 59).

The bouncy, puppetlike rhythm that afflicted some of the earlier performances has been almost overcome (the band still has trouble getting into a strong rhythm groove on up-tempo pieces such as When I Grow Too Old to Dream), with Eli Newberger developing into a strong, gracefully propulsive force on tuba. Terry Waldo, sitting in for regular pianist Bob Pilshbury (who couldn't get to the festival), adds some viable honky-tonk color to the group. Tony Pringle, the leader, is an erratic cornetist—usually good on leads and muted solos (especially with a metal derby mule à la Sidney De Paris), but his open-horn solos are less consistent. The two men who give the Eagles real distinction are Stan Vincent, a brash, bristling trombonist, and particularly Stan McDonald, a superb clarinetist and soprano saxophonist.

The tunes are a mixture of Armstrong/Dodds, piano rags, and more recent (i.e., post-1930) material in a traditional vein. At its best—such as the ride-out ensemble on Once in a While—this band can hold its own with any current traditional jazz band I know of. J.S.W.

OREGON: Distant Hills. Paul McCandless, oboe and English horn; Glen Moore, piano, flute, violin, and electric and acoustic bass; Ralph Towner, piano, guitar, trumpet, and mellophone; Collin Walcott, piano, sitar, tabla, drums, clarinet, marimba, congas, lamboura, guitar. Aurora: Dark Spirit; five more; [Oregon, prod.] VANGUARD VSD 79341, $5.98

Oregon plays instruments that may be a bit hard to categorize but that are certainly fresh and enjoyable. Really, this is a jazz group, but the music is so open and accessible that those attuned to this basic form of contemporary jazz may stagnate it as pop. All four members of Oregon play a variety of instruments and play them very well indeed.

Whatever you choose to call it, this is pleasing, intriguing stuff: easy listening that doesn't for a moment sound mindless. J.R.

NEW ENGLAND CONSERVATORY RAGTIME ENSEMBLE: More Scott Joplin Rags. Robert Winiker, trumpet; Thomas Foulds, trombone; Bruce Creditor, clarinet; David Reskin, flute and piccolo; Myron Romanul, piano; Cyrus Stevens, Amy Teare, James Froelich, and Bruce Coppeck, strings; Edward Barker, bass; Mark Belair, drums; Gunther Schuller, cond. Original Rags; Elite Syncopations; Gladiolus Rag; nine more. [C. F. Gaiehouse, prod.] CONCERT One/Mar Breeze: 31031, $5.98 (SO-encoded disc).

This second set of recordings of orchestrations of Scott Joplin's rags by the New England Conservatory Ragtime Ensemble shows—if proof were needed—that the first collection (Angel S 36060) was no one-shot novelty. This second collection is if anything even more fascinating, not only because it includes two of Joplin's loveliest though less frequently heard compositions, Bethena and Solace, but also because the period orchestrations (on which all of the first set was based) are supplemented by four orchestrations by Gunther Schuller, conductor of the ensemble.

The Schuller-arranged pieces are Bethena and Solace plus the charming Euphonic Sounds and the less familiar Wall Street Rag. Schuller's orchestrations indicate the potential in taking Joplin's rags (and the works of other ragtime composers) beyond the relatively limited manner in which they were developed for an ensemble more than half a century ago. Wall Street Rag, for example, has passages of highly sophisticated chamber jazz, while Bethena is opened up to take on the dimensions of an almost classic Waltz.

The dynamics of the conservatory group brings a quality to the music that was always missing in the customary piano-roll (or piano-roll-influenced) performances. In addition to its own merits, this project records a promise—not only in the new avenues opened by Schuller's arrangements (or those of others), but also in the fact that rags by James Scott and Joseph Lamb, which are already in the ensemble's repertoire, have not yet been recorded, nor have the ensemble's explorations of the rag-related work of Jelly Roll Morton.

Michael Howell: Looking Glass. Michael Howell, guitar; Julius Ellerbe, trumpet; Norman Williams, alto sax; Jules Broussard, soprano and alto sax; Hampton Hawes, acoustic and electric piano; Henry Franklin, bass; Tom Nicholas, congas; Leon Chancier, drums. Half-Blues; Five Weeks; Steppin'; five more. MILESTONE 9048, $5.98.

For a first record, this is a remarkably adventurous and imaginative collection by guitarist Michael Howell. It may be that one is made aware of how adventurously it is by the inclusion of a couple of routine numbers that indicate the direction the entire set might have taken. But Howell proves himself a most rewarding composer in Through the Looking Glass, a haunting duet played by Howell and Jules Broussard on alto saxophone, and Michaeline, in which Broussard, playing soprano saxophone, manages to be both charming and muscular.

Howell's guitar work is sometimes bright and spryly, sometimes warmly dark-toned (notably in a very effective interpretation of Thelonious Monk's Ruby My Dear). The groupings vary from the duo of Looking Glass to a sextet including trumpet and alto sax. The large group plays effectively in the very boppish Steppin' and in a catchy riff called Five Weeks. But in general, less rather than more accompaniment seems to be better for Howell.
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Producer Orrin Keepnews concludes a very bare summation of Howell's background in his liner notes (twenty-nine years old, born in Kansas City, raised there and in Denver, resident of San Francisco since 1964, first jazz record as sideman with Art Blakey in 1973, this debut record as jazz leader in May 1973) with the thought that he appreciates "having some firm ground underfoot when listening to a new musical voice." Agreed. But what Keepnews does not tell us is what a twenty-nine-year-old guitarist as polished and imaginative as Howell, who has been living in San Francisco since 1964 without ever making a jazz record, has been doing all those years. Practicing? J.S.W.

RON CARTER: All Blues. Joe Henderson, tenor saxophone; Roland Hanna and Richard Tee, piano; Ron Carter, bass; Billy Cobham, drums. Rufus; All Blues; Light Blues; three more. CTI 6037, $5.98. Tape: ● CTB 6037, $6.95; ○ CTC 6037, $6.95.

The only really disturbing aspect of this disc is that a group that could create and perform four pieces as stimulating as Light Blues, 117 Special, All Blues, and Will You Still Be Mine could also be responsible for such routine affairs as A Feeling and Rufus.

Since it is Ron Carter's date, it is only fitting that he should get the opportunity to show his varied facets as a composer (of a lovely, open, elusively haunting tune, Light Blue, and a catchy little light-spirited bubble, 117 Special), as an ensemble performer (in an unusually strong version of Miles Davis' All Blues), and as a strikingly imaginative virtuoso accompanied bass soloist (on Will You Still Be Mine).

Roland Hanna, who spends much of his time as an unobtrusive sideman on electric piano, switches to acoustic piano to give Light Blue much the same kind of thoughtful, lyrical development that he achieved with a very similar type of tune, Thad Jones's A Child Is Born. Billy Cobham's drumming is perceptively supportive. But Joe Henderson's tenor saxophone, effective at a subdued level on All Blues and 117 Special, becomes banal when he tries to stretch out, which is the basic problem with A Feeling and Rufus. J.S.W.

in brief

THE CREDIBILITY GAP: A Great Gift Idea. Reprise MS 2154, $5.98. This comedy disc contains satires on and parodies of black movies, television commercials for old records, and the Johnny Carson Show, among other overworked items in the contemporary comedy hopper. The laughs are few and truly far between. H.E.

SARAH KERNOCHAN: House of Pain, RCA APL 1-0343, $5.98. A very talented, very young songwriter. Ms. Kernochan writes her own temporary professional epitaph in the album title, which sets the tone for the whole set. I doubt there is an artist in the business who could succeed with a mood like that: It's not only indulgent but also boring for those of us who happen not to live in such romantic pain. Ms. Kernochan has much talent and no energy; let her try again in a few years. RCA has a genius for finding and backing up this kind of project; every Sarah Kernochan is entitled to one forgettable album before burial. M.A.

JERRY LEE LEWIS: Southern Roots. Mercury SPH 1-690, $5.98. Tape: ● MC8 1-690, $6.95; ○ MC8R 1-690, $6.95. Recorded in Memphis with a crew of forty-two Southern-style musicians to back him, Jerry Lee sings chestnuts like When a Man Loves a Woman and Blueberry Hill, and the result is as pleasing as the choice of material. H.E.

PATTI DAHLSTROM: The Way I Am. 20th Century T 421, $5.98. Patti Dahlstrom's somber singing and solemn songwriting occasionally mesh, but for the most part this debut could do with a splash of levity every now and then, if only to punctuate the relentless saineness of the composer's songbook. H.E.

JOHN MAYALL: The Best Of. Polydor PD 2-3006, $6.98 (two discs). This two-disc set is an anthology of bluesman Mayall's Polydor recordings, all of which are recent and more inclined toward jazz influences than were his early London recordings. M.J.

JOEL KATE and his NEW YORK NEOPHONIC ORCHESTRA: Paramount PAS 6086, $5.98. These plastic big-band versions of current rock standards are not unpleasant, even though they make your living room sound like an elevator. H.E.

MAMA LION: Give It Everything I've Got. Family FPS 2713, $5.98. This band has the rock form down pat, but there's a sullen emptiness at the core of its work which may explain why it has never become a terribly well-known act. H.E.

TANYA TUCKER: Would You Lay with Me (in a Field of Stone). Columbia KC 32744, $5.98. Tape: ● CA 32744, $6.98; ○ CT 32744, $6.98. Here is commercial country-and-western at its slick best. Tanya Tucker's nasal, vibrato-y voice is a potent instrument that can quaver for all it's worth, and she uses it to punch out a lyric with the enthusiasm of an evangelist who has just seen the light. It's all lightweight and entertaining: I just don't have the appetite for too much of it. H.E.

JOHNNY WINTER: Saints and Sinners. Columbia KC 32715, $5.98. Tape: ● CA 32715, $6.98; ○ CT 32715, $6.98. Good, basic blues-rock with a pungent Fifties flavor. Not the smartest, subtlest music imaginable, perhaps, but since when is pop music supposed to be smart? J.R.

JOHN MAYALL: Ten Years Are Gone. Polydor PD 2-3005, $6.98 (two discs). Mayall has been the "Father of British Blues" for the past ten years. His various bands have spawned such English superstars as Eric Clapton, Jack Bruce, and Mick Taylor. This two-record set—one disc a studio recording, the other a recording of a live performance at New York City's Academy of Music—presents Mayall as a mellow senior citizen of the British blues scene. It not only is low-keyed music-
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technical elegance from Wollensak.
making but is also an almost nostalgic reminder of 1960s English blues-rock, a form that is just not as compelling as it was during those brand-new days of the British rock invasion.

H.E.

**The Chambers Brothers:** Unbonded. Avco AV 11013, $5.98. The pounding gospel-rock sound of the Chambers Brothers is applied on this outing to the contemporary rock-and-soul songbook. The results are sometimes spectacular; the disc is, however, a highly uneven listening experience.

H.E.

**Grateful Dead:** The Best of (Skeletons in the Closet). WARNER BROS. W 2764, $6.98. Tape: • M 82764, $7.97. • M 52764, $7.97. Fans of this seminal San Francisco rock band will be pleased with this collection, a skillfully chosen demonstration of the Dead's dazzling eclecticism.

H.E.

**The Ikelettes:** Gold and New. UNITED ARTISTS LA 190F, $5.98. Tape: • M 82764, $7.97. The Ikelettes are the three young women who open the Ike and Tina Turner Revue. They usually perform three numbers, a not unpleasant interlude before Tina makes her entrance. In the theater the Ikelettes are a relatively painless experience; on record they are thoroughly dull.

H.E.

**Main Ingredient:** Euphrates River. RCA APL 1-0335, $5.98. Tape: • M 1-00335, $6.95; • M 1-0335, $6.95. This group has a great spirit and has produced some of the most musical hit records you'll ever hear. Two songs from this new album are by Seals and Crofts, Euphrates and Summer Breeze, and both have a beautiful, lilting feeling. Also included is the successful 'Just Don't Want to Be Lonely.' Fine, romantic arrangements by Bert DeCoteaux. Highly recommended as the best of candlelight music. M.A.

**Chunky, Novi & Ernie.** Reprise MS 2146, $5.98. This trio makes a unobtrusive kind of soft vaudeville rock that aspires to zaniness but does not meet that mark. More seasoning is required if Chunky, Novi & Ernie are to be classified as something more than this month's most peculiar new entry.

H.E.

**Al Martino:** Country Style. Capitol ST 11184, $5.98. Tape: • M 8XT 11184, $6.98; • M 4XT 11184, $6.98. Martino, a pop crooner from days gone by, applies his full-voiced technique to a group of country-style ballads, and to put it bluntly—the amalgamation just does not work.

H.E.

**The Skymonters with Hamid Hamilton Camp.** ELEKTRA EKS 75073, $5.98. A quintet of folk-scene regulars—Jakub Andar, Rudi Lane, Lewis Arquette, Lewis Ross, and Hamid Hamilton Camp—get together to create a skilful album of country-ish folk-songs. Best is Camp's singing.

M.J.

**David Essex:** Rock On. COLUMBIA KC 32580, $5.98. On this debut disc, David Essex's compositions and performances remind one of a sophisticated Gary Glitter. One does get the feeling that Essex must have something more to say.

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Among Those Present: a Miracle Worker. In a time when the Blue Mondays of yesteryear have given way to Desperate Everydays, when all our frantic scurrying around seems bleakly purposeless (or only malevolently purposeful), the most dependable business manager/mental-health counselor I know is the unlicensed George Frideric Handel. Like all magistral practitioners of the baroque school, he is a specialist in organization, in resolving chaos into satisfying formal patterns, and in transforming raw energy into controlled vitalization. And even more than any of his fellow masters, Handel can fire our pettier imaginations with the blazing vision of a freer, more expansive, more exhilarating vision of the realm we feel we have seen hopelessly condemned to.

The good Dr. Handel's present prescription of his unique pep and tranquilizer pills comes in the form of six opera and three oratorio overtures dispensed by Karl Richter and the London Philharmonic (Deutsche Grammophon/Ampex L 43342, Dolby-B 7¼-inches reel, $7.95). From the first dose one's tensest nerves begin to relax and one's flabbiest muscles begin to tone up; with repeated treatment one's long-cowed relish for life is galvanized into activity. Indeed the Handelian panacea is so potent that we're unhappy to complain about the complete lack of notes or to regret that three overtures here—Deidamia, Rada misto, and Belshazzar—were taped a couple of years ago by Bonyne for London. In any case, Richter commands a more eloquent breadth and sweep as well as providing a wider perspective of Handel's incalculable variety and inventiveness in the overtures to Alceina, Rinaldo, Jepthah, Rodelinda, Susanna, and—perhaps most invigorating of all—Agrippina.

Two Bold Young Clavierists. Dr. Handel's eminent colleague, Dr. Bach, prescribes even more powerful if perhaps less widely applicable medicine. Or maybe it is sometimes made to seem unduly bitter or hard to swallow by less persuasive dispensers than the young expatriate Minnesotan organist Daniel Chorzempa. He hangs out his shingle in formidably big-sound, propulsive, yet always imperiously controlled performances that reveal entirely fresh depths in the familiar D minor Toccata and Fugue, the C minor Passacaglia and Fugue, and the Preludes and Fugues in D. S. 532, and A minor, S. 543 (Philips/Ampex L 45214, Dolby-B 7¾-inches reel, $7.95).

There is an overall sense of grandeur here, stemming from both Chorzempa's own regal assurance and Philips' reverberant yet warm and lucid recording. This grandeur italicizes the erratic idiosyncrasies of another young American baroque specialist, Anthony Newman, as well as the harsher sonic qualities of his Bach Harpsichord Concerto No. 1 in D minor, coupled with a less-strained Haydn Harpsichord Concerto in D with the familiar Hungarian Rondo finale (Columbia MT/MA 32300, Dolby-B cassette/Dolby-B 8-track cartridge, $6.98 each; also MAQ 32300, Q-8 cartridge, $7.98).

Various Oddballs. The unfavorable comparison is even more obvious when Newman shifts to the organ in the same Passacaglia and Fugue in C minor and Prelude and Fugue in D. He tends to press, while Chorzempa remains rock steady. The recorded organ: qualities here are less attractive and less impressive—among them Newman's harpsichord, again, in an extremely clattery, hard-driven Prelude and Fugue in G, No. 15, in Book I of the "forty-eight." But what makes this program indispensable to Newmannia, and of livelier if controversial interest to others, are the various, right-with-it Newman's own compositions: the jaw-breaking Bhaje bochtistiananas, as complicated and pretentious as its title; a much more amusing improvisatory HAbiAt, which features little bells; and a brash metamorphosis of Couperin's Les Baricade, for vocalist Cecelia Pryor, harpsichord, rock group, and more bells (Columbia MT/MA 32439, Dolby-B cassette/Dolby-B 8-track cartridge, $6.98 each; also MAQ 32439, Q-8 cartridge, $7.98).

Now imagine a Bach devotee who happens to be a harmonica player fanatically patient enough to laboriously dub and overdub individual parts until he has accumulated complete pieces made up of now-reedy, now-hooky, now-croaky harmonica trembles from treble to bass! It's utter lunatic fringe—except that George Fields genuinely relishes his insane project and that Bach's music (especially his sprightly light-textured two- and three-part inventions) miraculously retains its distinctive veneer no matter how it is tonally gored. Granted, I'm biased in Fields's favor by a Depression-days Greenwich Village experience of essaying the role of bassist in a little harmonica group assembled for sheer fun music-making by artist Tom Benton. But maybe some others will relish "The Pocket Bach" as much as I do (Angel 4XS/8XS 36067, cassette/8-track cartridge, $7.98 each).

Then try harder still to imagine music composed by committee! Well, as you've undoubtedly learned from news reports of the Philadelphia Orchestra's Chinese trip, that's exactly how The Yellow River Concerto was written. Disconcertingly, though, it sounds (as brought to tape by pianist Daniel Epstein with, of course, the Philadelphians) for all the world like a Hollywood tunesmith's latest imitation of the Warsaw Concerto. Aesthetically, it's undeniably junk. Nevertheless, it's the best-buttered junk, with as juicy a tune and as flashy keyboard virtuosity as any of its models.

For no reason there's the "Chinese workers' and peasants' march" San Pei, a pleasant but odd British-folkish diversissement. The souvenir program is filled out with the Philadelphians' tour showpieces, Sousa's Stars and Stripes Forever and Respighi's Pines of Rome—all magnificently recorded but with the Pines lacking some of the dramatic grip of Ormandy's 1968 Columbia version (RCA Red Seal ARK/ARS 1-0413, cassette/8-track cartridge, $6.95 each).

Grand and Petty Operators. No Mozartean can afford to miss the tape "first" of the eighteen-year-old Wolfgang's large-scale opera buffa La Finta giardiniera—or, as done here in the alternative German Singspiel version, Die Gärtnerin aus Liebe. Of course it can't compare with the later masterpieces in either buffa or seria vein, and there are only occasional intimations of the distinctive genius that was even then evident in other works. But how fascinating it is to observe the future master developing and experimenting with his operatic craftsmanship. And it's admirably sung, played, and recorded by soloists and the North German Radio Chorus and Orchestra under the eloquent, if sometimes too serious, direction of the late Hans Schmidt-Isserstedt (Philips/Ampex R 3039, two 7½-inches reels, $21.95; including notes and texts booklet).

Mozartians, however, will be less attracted than fans of the late Istvan Kertesz to a "Mozart Opera Festival" of brightly recorded excerpts from no less than six works. The well-known soloist sings only routinely, and even the immensely talented Kertesz fails to inspire either them or the Vienna Haydn Orchestra (London/Ampex J 31228, Dolby-B double-play cassette, $9.95; K 490228, Dolby-B double-play 7½-inches reel, $12.95).

But to come full circle back to our present Era of Frustration, all opera-tape collectors will be united—in angry protest—if ominous rumors are officially substantiated, as seems only too likely as I write. The word is that all future Ampex-processed, open-reel, complete-opera sets will be issued without notes-and-texts booklets. No librettos? Such a suicidal policy is so incredible that I refuse to believe it's even being considered. I can only echo the youngster appalled by an earlier Illinois scandal: "Say it isn't so, Joe!"
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