New Life in Four Channel

SQ, CD-4, and QS: A Wrap-up of Advances
The high price.

For under $200*, you can now own the direct-drive PL-510.

*For informational purposes only. The actual resale prices will be set by the individual Pioneer dealer at his option.
The best way to judge the new Pioneer PL-510 turntable is to pretend it costs about $100 more. Then see for yourself if it's worth that kind of money.

First, note the precision-machined look and feel of the PL-510.

The massive, die-cast, aluminum-alloy platter gives an immediate impression of quality. The strobe marks on the rim tell you that you don't have to worry about perfect accuracy of speed. The tone arm is made like a scientific instrument and seems to have practically no mass when you lift it off the arm rest. The controls are a sensual delight to touch and are functionally grouped for one-handed operation.

But the most expensive feature of the PL-510 is hidden under the platter. Direct drive. With a brushless DC servo-controlled motor. The same as in the costliest turntables. That's why the rumble level is down to -60 dB by the JIS standard. (This is considerably more stringent than the more commonly used DIN “B” standard, which would yield an even more impressive figure.) And that's why the wow and flutter remain below 0.03%. You can't get performance like that with idler drive or even belt drive. The PL-510 is truly the inaudible component a turntable should be.

Vibrations due to external causes, such as heavy footsteps, are completely damped out by the PL-510’s double-floating suspension. The base floats on rubber insulators inside the four feet. And the turntable chassis floats on springs suspended from the top panel of the base. Stylus hopping and tone arm skittering become virtually impossible. (Even the turntable mat is made of a special vibration-absorbing material.)

But if all this won't persuade you to buy a high-priced turntable, even without the high price, Pioneer has three other new models for even less.

The PL-117D for under $175? The PL-115D for under $125? And the amazing PL-112D for under $100?

None of these has a rumble level above -50 dB (JIS). None of them has more wow and flutter than 0.07%.

So it seems that Pioneer has also conquered the one big problem of low-priced turntables.

The low performance.

U.S. Pioneer Electronics Corp., 75 Oxford Drive, Moonachie, New Jersey 07074.

PIONEER
Anyone can hear the difference.

CIRCLE 23 ON READER-SERVICE CARD
Pioneer has conquered the one big problem of high-priced turntables.
Stanton Stereo Wafers™  
The livest sound, the highest fidelity  
...plus the livest look.

Looks Just Great...  

Hail to a totally new concept and technology in headphones. And hail to an Open Audio design that gives you the lightest weight comfort you've ever experienced with headphones that possess truly top quality sound.

These ultra thin headphones have been designed and engineered to meet important professional needs: extreme comfort over long listening periods, a particular wide frequency response, and a broad dynamic range. A major factor in the success of the design is the use of rare earth elements in the compound of the permanent magnets of each earpiece. Besides having superior magnetic properties, these magnets are also of much smaller size, while still allowing Stanton to achieve an improved response over headphones incorporating conventional permanent magnets.

The soft foam cushioned headband is exceptionally comfortable and has a trendy brushed denim fabric covering. The earpiece yokes incorporate specially designed pivots which allow the earpieces to fit perfectly against the ear, whatever the shape of the head.

Write us for the specs — they’re magnificent! And ask for a demonstration as soon as possible at your Stanton dealer.

...Any Way You Look At It!

Write today for further information to Stanton Magnetics, Inc., Terminal Drive, Plainview, N.Y. 11803.

CIRCLE 47 ON READER-SERVICE CARD

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When most people consider buying a stereo component system, they usually build it around either the receiver or the speakers. But when serious music lovers choose a system, they should think of the turntable first. Because the turntable dictates what comes out of the speakers. And when it comes to turntables, BSR offers more than Dual, BIC or Garrard.

First of all, the new BSR turntables are belt-driven, so they're engineered to be smooth, quiet and virtually trouble-free. They play automatically and manually. And to really turn the tables on our competitors, BSR includes the revolutionary ADC induced magnetic cartridge, the base and the dust cover in the price of the turntable.

BSR gives you still more. Like a locking umbrella spindle that holds up to six records. A rotating single play spindle. A continuous repeat spindle so you can play your favorite record over and over again. And a viscous damped cueing mechanism that's smooth and precise to help protect your records.

What's more, BSR turntables are pre-tested and pre-assembled. So you can get down to the serious business of listening to your favorite music right away. And also enjoy another special feature; the price - Under $140 for the 200 BAX, $110 for the 100 BAX and under $100 for the 20 BPX automated single play turntable.

If you consider yourself a serious music lover who wants brilliant sound reproduction, consider BSR first. For full details see your dealer or write: Consumer Products Group, BSR (USA) Ltd., Blauvelt, N.Y. 10913.

BSR. Finally, turntables worth building your whole system around.

*Suggested manufacturer's retail prices including ADC induced magnetic cartridge, base and dust cover.
Yamaha’s new two-way beryllium dome NS-500.

A very responsive speaker with a rich, luscious sound. A deeply involving sound. Highly defined, finely detailed.
The NS-500 is created from the same advanced beryllium technology that made Yamaha’s revolutionary NS-1000 Series speakers, in the eyes and ears of many audio experts, the highest standard of sound accuracy. (Specific benefits of Yamaha’s beryllium technology have been documented in a paper presented to the 52nd Convention of the Audio Engineering Society.)

With the NS-500 you get all of beryllium’s advantages: transparency, detail, and lack of distortion that go beyond the best electrostatic speakers, but at a price roughly half that of the NS-1000. Only $500 the pair, suggested retail price.

**The joy of beryllium.**
The ideal dome material for a high frequency driver must respond instantly to changes in amplitude and frequency of the input signal. So the ideal dome material must be virtually weightless as well as extremely rigid.

Beryllium is the lightest and most rigid metal known. Its density is less than two-thirds that of commonly used aluminum, and its rigidity is almost four times as great—thus preventing dome deformation and consequent distortion. What’s more, beryllium’s sound propagation velocity is twice that of aluminum.

The beryllium dome found on the NS-500’s high frequency driver is the world’s lightest—about half the weight of one petal of a small sweetheath rose, which is one of the reasons for this speaker’s exceptional sensitivity and response. And for its sensuous sound.

**A closer look.**
To be able to offer the sophistication of beryllium at a more affordable price, without sacrificing quality or performance, Yamaha designed the NS-500 as a two-way bass reflex system.

This gives the NS 500 a truer, more emotional low end than the relatively objective NS-1000. But it also gives the NS-500 more efficiency (96 E SPL at one meter with one watt RMS input). Which means you don’t have to invest in the highest powered amplifiers or receivers in order to drive the NS-500 to its full rated output.

For an optimum match with the beryllium tweeter, Yamaha developed a very light, very rigid "shell" woofer. A special hermetically-sealed air core LC crossover with a carefully selected 1.8kHz crossover point.

As a result of these design parameters, the NS-500 boasts an insignificant 0.05% THD below 50 dB SPL, from 40 Hz to 20 kHz, making it the perfect complement to Yamaha’s state-of-the-art low distortion electronics.

Underneath the sleek monolithic styling of its solidly crafted enclosures, the NS-500 is full of many exclusive Yamaha features and distinctive Yamaha touches of craftsmanship.

But to fully appreciate the beauty of the NS-500, you really should visit your Yamaha Audio Specialty Dealer.

Which brings us to something else.

**Something more than just another speaker pamphlet.**
Yamaha’s Reference Handbook of Speaker Systems is a very thorough guide encompassing all aspects of speaker design, performance, and evaluation. Starting with a detailed explanation of speaker design principles, the discussion then turns to a solid base of objective criteria, written in easily understood language, to help you properly evaluate any speaker in any listening environment. Already a much-sought-after reference work among audio professionals, Yamaha’s Reference Handbook of Speaker Systems is available at your Yamaha Audio Specialty Dealer.

At $5.00 a copy, it’s well worth the cost. However, if you clip out the coupon in the bottom corner of this page, take it to your Yamaha Audio Specialty Dealer and hear a demonstration of the exciting NS-500 or any other Yamaha speaker, the book is yours for half the price.

And if you’re not familiar with the name of your local Yamaha Audio Specialty Dealer, drop us a line. In turn, we’ll also send you a free preprint of the Audio Engineering Society paper on Yamaha beryllium technology mentioned above.
We build products with state-of-the-art specifications. But we don't stop there. Specifications are important to us, but equally vital is the achievement of obviously audible improvements in the reproduction of music with every separate component we make. This is the driving force behind Phase Linear, the single-minded philosophy that has produced so many innovative features, advanced circuitry and ultimately, products with more dynamic range and bigger, more lifelike sound than any comparably priced components available on the market today. Our Research Department, headed by Robert Carver, is staffed by imaginative design engineers deeply concerned with the entire spectrum of musical reproduction. Many more new products are in the wings; in the meantime, we invite you to review the present Phase Linear line and read what the critics have said. Then ask your dealer for a demonstration, and draw your own conclusions.

The Phase Linear 700B Stereo Amplifier
Has established performance and power standards unequaled by any other amplifier on the market...regardless of price.
"The lowest distortion, in spite of its enormous power capability, was on the Phase Linear 700..." Hirsch-Houck Labs in STEREO REVIEW.
"Hum and noise figures were also well below anything we have encountered before" C. G. McProud in AUDIO.
"...in terms of sheer power it is the most impressive we have tested." HIGH FIDELITY.

The Phase Linear 400 Stereo Amplifier
Hailed internationally as the undisputed "best buy" among all the "super amps" available today.
"We were utterly flabbergasted when we discovered the amplifier, which sounded dramatically cleaner and more revealing, turned out to be, when we removed our blindfold status, the Phase 400...No other amplifier...even ever tied the Phase 400 for naturalness, clarity, and lack of distortion." SOUND ADVICE, 225 Kearny St., San Francisco.
"...a superb amplifier, furnishing the essential qualities of the Model 700 at a much lower price." Hirsch-Houck Labs in STEREO REVIEW.
"Harmonic distortion proved to be almost unmeasurable on this amplifier." STEREO & HI-FI TIMES.

The Phase Linear 200 Stereo Amplifier
The newest addition to our amplifier line incorporates all we have learned to date about power amplifier design. The 200 has not been reviewed, but with its advanced LED metering system, sophisticated protection circuits and excellent performance specifications, we are optimistic!

The Phase Linear 4000 Stereo Preamplifier
The model 4000 illustrates our philosophy of delivering far more than state-of-the-art specifications. It offers revolutionary features that make music sound better by providing greater dynamic range and a quiet background.
"...a combination of noise reduction and dynamic-range-expansion circuits whose sophistication far surpasses anything previously available on the audio consumer level...even without the assistance of its special noise reducing systems, it would rank as one of the quietest units we have ever encountered...makes any program played through it sound better than through any other preamplifier we have ever used...a most impressive technical achievement." Hirsch-Houck Labs in STEREO REVIEW.

The Phase Linear 2000 Stereo Preamplifier
Beyond efficient handling characteristics and excellent specifications, the 2000 is capable of reproducing more of the music on your recordings. Its ability to reproduce ambient signals is a function found on no other preamplifier.
"Super in the listening as it is smooth in the handling...The extra flexibility in the tone controls delivers worthwhile options. We find the ambience recovery feature a decided plus." HIGH FIDELITY.

The Phase Linear 1000
A noise reduction and dynamic-range-expansion system designed to eliminate noise from all sources (records, tapes, FM, etc.) and restore the music we hear at home to its original dynamic range.
"...for any already top-quality music system, we doubt a $350 expenditure in any other component could match the audible improvement made possible by the Phase Linear 1000." Hirsch-Houck Labs in STEREO REVIEW.
"In theory, the circuit (AutoCorrelator) can make the distinction and reduce the level of the noise component while reproducing the signal component unaltered. In practice, its ability to do so is far from absolute, yet audibly greater (to my ears) from that of any other noise-remover on the market." Robert Long, in HIGH FIDELITY.

To be released soon—
The Phase Linear 5000 FM Tuner
Loaded with innovations, the 5000 will feature circuitry capable of increasing the dynamic range of broadcast signals up to 9 dB! It will do more than just reproduce a mediocre broadcast perfectly, it will make FM signals sound virtually as good as recorded signals. This feature alone makes the Phase Linear 5000 FM Tuner worth waiting for!

Phase Linear Corporation, 20121 48th Avenue West, Lynnwood, Washington, 98036. Manufactured in the U.S.A. Distributed in Canada by H. Roy Gray, Ltd.

CIRCLE 21 ON READER-SERVICE CARD
Phase Linear

Phase Linear 2000 Preamplifier • Phase Linear 200 Power Amplifier • Phase Linear 5000 Tuner • Phase Linear 1000
Noise Reduction System • Phase Linear 400C Preamplifier • Phase Linear 700B Power Amplifier • Phase Linear 400
Power Amplifier • Phase Linear Corporation, Lynnwood, Washington, U.S.A.
Beyond specifications.

High fidelity engineering, to justify its name, has one goal: to reproduce music in the listening room with unqualified accuracy. Undistorted. Undiminished.

At Harman Kardon, we explore new technical directions not solely for their inherent challenge, but as methods of predicting and improving music quality.

Specifications are supposed to serve the function of predicting performance. Yet two competitive instruments with exactly the same set of conventional specifications often sound vastly different. Obviously, the reasons for this difference lie elsewhere. Conventional specifications are necessary. Necessary, but not sufficient.

Our 730 receiver meets specifications equalling or surpassing those of the finest individual component units. Yet it achieves a quality of transcendent realism which these specifications alone cannot explain.

To predict musical accuracy, we have found it necessary to go beyond conventional specifications. We test, rigidly, for square wave response. We monitor, strictly, slew rate and rise time. These tests account for the sound quality of the 730—not in place of conventional specifications, but beyond them.

The 730 goes beyond the conventional in other ways. It is driven by two complete, discretely separate power supplies, one for each channel. Even when music is extraordinarily dynamic, the energy drawn by one channel will in no way affect the other. The music surges full. Unconstrained.

Any fine tuner measures signal strength. The 730 incorporates a patented system which measures not strength, but signal-to-noise ratio. As a result, it can be tuned to the precise point where the signal is purest for listening or recording.

Equally important, the twin-powered 730 has all the basic design elements that identify it as a Harman Kardon instrument: wide bandwidth, phase linearity, ease of operation and a wide range of input and output selections.

All of this suggests further discussion. If you are interested in such an exploration, please write us (directly, since we imagine you are impatient with coupons and "reader service" cards, and so are we). We'll certainly write back, enclosing a brochure also unconventional in its detail.

Just address: The 730 People, Harman Kardon, 55 Ames Court, Plainview, New York 11803.
### SPECIFICATIONS

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<tr>
<th>Parameter</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Power Output</strong></td>
<td>40 Watts Min. RMS per channel (500Hz)</td>
</tr>
<tr>
<td><strong>Power Bandwidth</strong></td>
<td>From 10 Hz to 40 kHz at &lt; 0.1% THD, both channels driven simultaneously at 8 ohms.</td>
</tr>
<tr>
<td><strong>Frequency Response</strong></td>
<td>40 Hz to 20 kHz ± 0.5 dB</td>
</tr>
<tr>
<td><strong>System Rise Time</strong></td>
<td>&lt; 1.5 µsec</td>
</tr>
<tr>
<td><strong>System Square Wave Tilt</strong></td>
<td>&lt; 5%</td>
</tr>
<tr>
<td><strong>Total Harmonic Distortion</strong></td>
<td>&lt; 0.15%</td>
</tr>
<tr>
<td><strong>Intermodulation Distortion</strong></td>
<td>&lt; 0.01%</td>
</tr>
<tr>
<td><strong>System Hum and Noise</strong></td>
<td>Better than 60 dB below rated output (unweighted)</td>
</tr>
<tr>
<td><strong>Damping Factor (1 kHz @ 1 watt)</strong></td>
<td>&gt; 30</td>
</tr>
<tr>
<td><strong>Power Amplifier Input Sensitivity</strong></td>
<td>&lt; 1.2 V</td>
</tr>
<tr>
<td><strong>Power Amplifier Input Impedance</strong></td>
<td>50 kΩ</td>
</tr>
<tr>
<td><strong>Power Amplifier S/N (10 watts)</strong></td>
<td>&gt; 90 dB</td>
</tr>
<tr>
<td><strong>Power Amplifier Square Wave Rise Time</strong></td>
<td>&lt; 1.5 µsec</td>
</tr>
<tr>
<td><strong>Preamp Input Sensitivity</strong></td>
<td>a. Aux: 150 mV b. Tape Mon. 150 mV c. Phono 2.5 mV</td>
</tr>
<tr>
<td><strong>Preamp Input Impedance</strong></td>
<td>a. Aux: 30 kΩ b. Tape Mon. 30 kΩ c. Phono 47 kΩ</td>
</tr>
<tr>
<td><strong>Preamp Harmonic Distortion</strong></td>
<td>&lt; 0.15%</td>
</tr>
<tr>
<td><strong>Preamp Output Impedance</strong></td>
<td>600 ohms</td>
</tr>
<tr>
<td><strong>Phono Overload</strong></td>
<td>&gt; 95 mV</td>
</tr>
<tr>
<td><strong>RIAA Equalization</strong></td>
<td>a. Mono -1 dB b. Stereo -2 dB</td>
</tr>
<tr>
<td><strong>Tone Control Action</strong></td>
<td>a. 50 Hz b. 1 kHz</td>
</tr>
<tr>
<td><strong>Contour Effect (50 Hz)</strong></td>
<td>&gt; 10 dB</td>
</tr>
<tr>
<td><strong>High Cut Filter (500 Hz)</strong></td>
<td>&lt; 0.1%</td>
</tr>
<tr>
<td><strong>Low Cut Filter (500 Hz)</strong></td>
<td>&lt; 0.1%</td>
</tr>
<tr>
<td><strong>FM Sensitivity</strong></td>
<td>a. Mono 0.2 µV b. Stereo 0.4 µV</td>
</tr>
<tr>
<td><strong>IF Rejection</strong></td>
<td>&gt; -75 dB</td>
</tr>
<tr>
<td><strong>AM Rejection</strong></td>
<td>&gt; -75 dB</td>
</tr>
<tr>
<td><strong>Alternate Channel Selectivity</strong></td>
<td>&gt; 90 dB</td>
</tr>
<tr>
<td><strong>Image Rejection</strong></td>
<td>&gt; 100 dB</td>
</tr>
</tbody>
</table>

**Additional Specifications:**
- **FM Harmonic Distortion (1 kHz):** a. Mono -0.2% b. Stereo -0.4%
- **Pilot Suppression:** > 85 dB
- **De-Emphasis:** 7.5 µsec
- **Mute Level:** 0 V
- **Mute Suppression:** > 90 dB
- **Stereo Indicator Threshold:** a. Aux b. Tape Mon. c. Phono
- **Audio Output:** 0.5 V
- **AM Sensitivity:** > 250 µV
- **AM Signal for 1 watt Output:** > 155 µV
- **Alternate Channel Selectivity:** > 30 dB
- **Image Rejection:** > 75 dB
- **IF Rejection:** > 60 dB
- **FM Sensitivity:** > 150 mV
- **Intermodulation Distortion:** > -90 dB
- **Power Amplifier Input Sensitivity:** > 150 mV
- **Preamp Input Sensitivity:** > 150 mV
- **Preamp Input Impedance:** > 30 kΩ
- **Preamp Input Impedance:** > 47 kΩ
- **Preamp Harmonic Distortion:** > 0.15%
- **Crosstalk:** a. Aux -40 dB b. Tape Mon. -42 dB c. Phono -42 dB
One Clean Investment Saves Many

Playing dirty records—even if they look clean—can permanently ruin your large investment. So make a single, clean investment. Discwasher, the Superior Record Cleaner, available worldwide.
Letters

Control-Room Compulsions:
Two Views

In "How a Classical Producer Does It" [August], John Culshaw has revealed why commercial recordings of classical music fall so far short of "high fidelity" and has made a mockery of your magazine's name. Not once does Culshaw state that his objective is to reproduce a natural, realistic, and faithful recording of music in the concert hall. He tells us at the outset that the orchestra and its conductor are mere tools in the hands of the producer, and not that they are the source of the music that is recorded and preserved for the rest of us. He says that as long as we don't notice his messing with the controls it's OK.

No wonder the best recordings available today are produced by those amateur and professional engineers without dozens of microphones and channels and limiters and equalizers. Although John Woram, in his article "How a Pop Producer Does It" [August], admits that excellent recordings can be made without manipulating the music, he states that most engineers have abandoned this approach. Producers or engineers who set out to improve upon nature and who think they are better judges of music than the musician are continually fouling inferior, distorted and unrealistic recordings on us all. The public hasn't even been given the chance to judge for itself. I hope the note in the August "News and Views" about two discs made without "processing" is only the first step in an increasing awareness that the words "high fidelity" mean accurate, faithful, true, natural, and untampered-with reproduction of the original artistic performance.

H. L. Kliman
Chadds Ford, Pa.

Mr. Culshaw replies: Unless you happen to live in a concert hall with a resident orchestra, the words "natural," "realistic," and "faithful" are meaningless. The sole object of a good producer or engineer is to record a performance so that its impact (nothing, in my opinion, can convey in domestic conditions with the ut-

We understand that "artistic considerations" may involve occasional limiting of peaks that exceed the dynamic range of the disc. But more important is the fact that the 60 dB or so between the noise level and overload point of even the best discs cannot accommodate a dynamic range of, say, a symphony orchestra. To us, it seems immaterial whether the dynamic range is "compressed" automatically or by asking the musicians to restrict their crescendos; the dynamic range of a live performance is not available on the discs of major companies. Standard (and moderate) compression and expansion could make it so.

New Equipment

In your "New Equipment for 1977" article [September], you say that Technics has replaced its SA-5550 receiver rated at 58 watts per channel at 0.03% distortion with the SA-5550 rated at 85 watts per channel at 0.01%. Checking your July review of the SA-5550, I found that the distortion was nowhere near that low and that you made no

COMING NEXT MONTH

If you're the kind that likes to do your Christmas shopping—and hinting—early, then our December issue is for you. In How I Choose a Component System, audiophiles with widely differing listening tastes and environments spell out their sometimes quirky requirements and name the units in today's marketplace that best fit their idiosyncrasies (and yours?)? From Mon
treux the editor reports the decisions of an international jury on the Best Rec
cords of the Year, delectable Yuletide goodies for the hard-to-please on your list. On a different note, Robert Angus examines The Record Underground from its beginnings in Mapleson's cy-

SOLUTION TO HIFI-CROSTICO NO. 17

GREGOR PIATIGORSKY: Cellist

The smaller the towns, the longer the parties after concerts and the more meager the food. But I like people. If they enjoy the concert, I am gratified. And those rare hosts who know that the artist does not eat before the concert I downright love.

ADVERTISING


High Fidelity and High Fidelity/Musical America are published monthly by ABC Leisure Magazine, Inc. Leslie T. Fager, Publisher; Harvey L. Saref, President; Marv Perlmutter, General Manager; John A. Judson, Vice President; Consulting Editor, Joseph B. Papp; Technical Editor, John S. Goodwin; Advertising Manager, John M. F. Goodwin; Production Manager, Jeanne Schwan, who are responsible for the contents of this magazine. Copyright © 1977 by ABC Leisure Magazine, Inc. All rights reserved. No part of this magazine may be reproduced, stored in a retrieval system, or transmitted in any form or by any means without the written permission of the publisher.

Editorial correspondence should be addressed to The Editor, High Fidelity, Great Barrington, Mass. 01230. Editorial contributions will be welcomed and payment for articles accepted will be arranged prior to publication. Unsolicited manuscripts should be accompanied by return postage.

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mention of any discrepancy between rated and measured specs. What is going on?

Edwin J. Muller
Palo Alto, Calif.

Some zeros were inadvertently inserted by Technics in one version of its distortion specs. The correct values are 0.3% for the SA-5550 and 0.1% for the SA-5560.

Record Quality

I am an avid music-lover and confirmed record collector just returned from Britain. I have recently been appalled at the pressing quality of American disc issues. One set in particular sounded as though the quality-control inspector decided to sandpaper it. Only consumer satisfaction will allow the disc to keep its position as the major sound-recording medium. Hence it would behoove the companies to bring the record up to 1976 (or should I say 1960?) quality standards.

I, for one, would like to see adoption of the English practice of a firm list price for full-price discs (say, $5.00). This would assist specialist dealers by doing away with rampant discounting and, more important, would provide incentives for a better quality disc. There must be many who would prefer to pay $5.00 for a useful recording than to pay $3.66 for a packet of scrap vinyl.

John Angel
Palo Alto, Calif.

Heresy® Loudspeaker Offers Klipsch Quality When You Don’t Have Room For Klipschorn®

Has the widest range with least distortion of any speaker its size. The tweeter and mid-range, as on the KLIPSCORN, are horn loaded. The woofer, a low compliance direct radiator mounted in a total enclosure, puts out far more bass than you’d expect. And everything you hear is clean honest sound. None of the distortion inherent in acoustic suspension systems. The HERESY is the nearest thing to a KLIPSCORN you’ll find in a small speaker. This coupon will bring you the name of your nearest dealer and information on all Klipsch loudspeakers.

klipsch
P.O. Box 688H-11, Hope, Arkansas 71801
Please send me your latest brochure and list of dealers.

Name
Address
City State Zip

Canadian Collection

In R. D. Darrell’s review of Respighi’s Trittico Botticelliano on Supraphon [July], he says, “There is...no other current version of the Trittico. Indeed this one is, as far as I can tell, the first to appear in stereo.”

Well, Mr. Darrell (and your readers) might be interested to know that there is another recording of this work, in stereo, available from the Publications Division of the Canadian Broadcasting Corporation at P.O. Box 500, Toronto, Ontario M5W 1E6. Not knowing the European release date of the Supraphon, I can’t say that the CBC album was the first, though it was recorded...
Despite the advancements in high fidelity, stereo receivers have become pretty much look-alikes and perform-alikes. Until now.

When you look at JVC's new S300 receiver you can see what we mean. JVC has eliminated conventional rotary controls completely and replaced them with direct-action push-buttons for all program sources, and precision slide controls for volume, balance and tone selection. This clean, uncluttered styling achieves a distinctively professional look. But it's more than a look. The S300 is quality all the way—sound, performance, engineering.

Even though the S300 is the middle model in JVC's new series of five professional receivers, it shares much of the advanced circuitry and many of the features of the top professional—the S600.

For instance, unheard of in a moderate priced receiver, the S300 offers individual tone adjustment over the entire musical range with JVC's exclusive five-zone control SEA graphic equalizer system. And where conventional receivers include center-channel and signal strength meters only, the S300 also gives instantaneous power output readings with twin wattage meters. Recording fans will especially appreciate the dual tape monitor recording/dubbing feature.

The JVC S300 has a power handling capability of 50 watts per channel, minimum continuous power into 8 ohms, from 20 to 20,000 Hz with no more than 0.3% total harmonic distortion.

Thanks to an FM tuner section with a dual-gate MOS FET and 3-gang tuning capacitor, plus phase lock loop IC and quadrature detector circuitry, stations come in cleanly and effortlessly with incredibly low distortion and extraordinary channel separation. And you can select stations precisely with the unique gyro-bias tuning knob.

Call toll-free 800-221-7502 for the name of your nearest JVC dealer. Then visit him and see the professional JVC S300. You'll recognize it instantly. It's the one face that stands out in the crowd.

JVC America, Inc., 58-75 Queens Midtown Expressway, Maspeth, N.Y. 11378 (212) 476-8300

Approximate retail value of the S300 is $400.
You know what you get

JBL's new L166 doesn't add anything to the music. It doesn't take anything away. That's what all the excitement's about.

It's the most accurate loudspeaker JBL has ever made, and that makes it pretty good. Half our business is with recording studios and professional musicians who live in a hundred decibel, twenty kiloHertz, twenty-four track world where accuracy isn't a standard; it's an obsession.

There are four reasons to hear the L166:

1) restricts the radiating surface and
2) creates a natural damping, eliminating the resonant tones.

Result? Pure sound, dispersed 150° horizontal and vertical at 20 kiloHertz.

One, a new, one-of-a-kind dome tweeter. It can handle all the highs your amplifier can throw at it and deliver them to any corner of a room. Like a drumstick and a cymbal. Stand anywhere and witness the crash.

Two, an exclusive, new low fre-

JBL's 066 Hemispherical Radiator has an extremely hard dome surface that won't buckle or shatter when it's hit with a high, hard transient. And—as if that weren't enough—there's a unique integral baffle that:

Most low frequency cones have always needed a final dose of paint or putty or luck to balance their weight and rigidity with their magnet strength and cabinet size.

Until today.

quency transducer. It has the tightest, cleanest bass you’ve ever heard—all the way down down down to the lowest audible note. (Ask the L166 to play an amplified cello, an organ pedal, a kickdrum. Nice.)

Three, a new grille material.

It's not just another pretty face. Through it pass the purest highs ever heard. It's the most acoustically transparent grille ever created.

Let your JBL dealer explain the first three reasons. We'll explain the fourth. It's JBL.

JBL has been at this for more than thirty years, and one thing we've learned to make with the greatest care is a promise.

Promise: If you haven't heard JBL's L166, you haven't heard nothing.
Four reasons why new Quantum by Memorex is better than these leading tapes.

1. Quantum offers lower distortion. You get a truer recording of any type of music and less distortion at any output.

2. Quantum has higher sensitivity. This provides greater output and allows you to effectively capture all signals at a higher level.

3. Quantum provides a better signal-to-noise ratio because its higher sensitivity is obtained with no increase in noise level. This means a cleaner sound.

4. Quantum gives you higher saturation, resulting in greater dynamic range and more recording flexibility. Quantum achieves its improved recording performance without sacrificing a high degree of mechanical excellence. With long life, durability, precision edge quality and excellent oxide adhesion.

The best way to hear the Quantum difference is to try it out for yourself. Available in 7" x 1800', 7" x 2400' and 10½" x 3600' reels.

MEMOREX
Recording Tape.
Is it live or is it Memorex?

© 1976, Memorex Corporation, Santa Clara, California 95052, U.S.A.

CIRCLE 35 ON READER-SERVICE CARD

in 1971 and has been available to the public since the spring of 1975. Numbered SM-166 and featuring the CBC Vancouver Chamber Orchestra under the direction of John Avignon, it also contains Redes by Silvestre Revueltas and Mendelssohn's Calm Sea and Prosperous Voyage Overture.

This album is part of the CBC's Canadian Collection of nearly two hundred records devoted to the music and musicians of Canada, the latter group including such personalities as pianists Anton Kuerti and Robert Silverman, flutist Robert Aitken, bassoonist George Zukerman, plus the Festival Singers of Canada and the National Arts Centre Orchestra. There are also three of the last recordings of the late Karl Ancher, who conducts the Toronto Symphony in Beethoven's Sixth Symphony, Martinů's Fifth Symphony (in real stereo, unlike the version on Everest with the Czech Philharmonic), and Symphony No. 2 by Canadian composer Healey Willan.

Michael Quigley
Vancouver, B.C.

Necrology

R. D. Darrell's line, "In the nearly twenty years since the death of Manuel de Falla" [August review of The Three-Cornered Hat], is a snare. Andalusian. It has been fully thirty years, with his partisans—Argentina, Ansermet, Soriano—also lamentably falling by the wayside during that time. But Falla's pure gold cannot long be dulled by fluctuations of taste.

Also, Harris Goldsmith, in the review titled "Rudolf Kempe: A Fitting Memorial" in the same issue, says the maestro was sixty-five when he died. In fact, he was born in 1919, making him fifty-six.

David Wilson
Carmel, Calif.

Mr. Wilson is correct about Falla; he died in 1946. But our sources say the conductor was born in 1910.

Olympic Music

Do you know the name of the composer of the music to the 1976 Olympics? And is any of that music available on records?

Frank Flanagan
New York, N.Y.

The composer of "Games of the 21st Olympiad, Montreal 1976" is André Mathieu, and Polydor has released an album of this music.

A Kinks Fan

In your August issue, critic Mike Jahn called the Kinks "a second-rate group" and proceeded to heap various degrees of praise on Donna Summer (orgasmic trash), Elton John (who was recently quoted in Rolling Stone as saying, "It's all a big con. But as long as the public lap it up I'm quite happy to go on giving it to them!")), Neil Sedaka (who wanted him back?), and American Tears (whose protest songs make me wonder if it knows what year it is).

The Kinks possess a humor, intelligence, and craftsmanship that seem to evade Mike Jahn, and it has more durability and much...
How 2½ Million Smart Buyers Get Superior Quality CB and Hi-Fi Equipment at Lower Prices.

With The FREE Lafayette Catalog

You'll also find extraordinary values on other stereo components, radios, ham gear, scanners, cameras, watches, test equipment, calculators, hobby kits, electronic parts and accessories and much, much more. The new 1977 catalog has 164 pages filled with thousands of the newest products and better electronic values for your home, car and office. Behind every product is 56 years of experience, reliability and our money back guarantee. Enjoy shop-at-home convenience and a variety of easy payment plans. Smart buyers know that shopping around is the best way to get the best deal. Shop around in our new catalog and you'll see why so many people think so much of it. Before you buy anywhere else, check the Lafayette catalog. You'll get more for your money.

Send for your free copy today.

Lafayette Radio Electronics Corp.
Dept. 20024
111 Jericho Turnpike, Syosset, New York 11791

Send my FREE catalog to:

Name

Street

City

State Zip

November 1976
Introducing the Accutrac 4000.

Its father was a turntable.
Its mother was a computer.

The Accutrac 4000 is the most radical new idea in record-playing technology since the introduction of the LP.

It's a marriage of solid-state integrated circuitry, infra-red electro-optics and the latest in direct-drive engineering. We've replaced hundreds of mechanical parts with efficient, silent electronics: in fact, the functions of nearly 10,000 transistors are being performed by just two logic chips.

The result: The Accutrac 4000 is the most accurate, reliable, noiseless turntable ever invented. And it even lets you re-arrange selections on a record to hear them in the order you want.

The Accutrac 4000 reaches new lows.

Wow and flutter are down to a completely inaudible 0.03% W.R.M.S. Rumble, -70dB (DIN B). Tracking force, a mere 3/4 gram. And tonearm resonance, the ideal 8-10 Hz.

Our direct-drive motor brings the massive die-cast platter to full speed instantly. And keeps it there with the help of electronic sensors which adjust for power fluctuation.

There's no way a turntable can be any more precise.

Now, listen to the selections on a record in the order you want.

Once we developed the electronic control system, it was a logical step to extend its capabilities.

So now, instead of just listening to a record, you can re-arrange the playing order of the selections, repeat them, even skip the ones you don't like.

Just by pushing a button.

Suppose you want to hear selections 5, 3 and 7.

Simply press the buttons marked 5, 3 and 7. In fact, you can pre-set the sequence with any combination of up to 24 commands.

And if you don't want to leave your chair to give the orders, beam it in by cordless remote control with the transmitter (lower left) and receiver (above).

The Accutrac 4000 system: it not only plays records as sensitively as possible, it also takes better care of records than is humanly possible.

The arm your fingers never have to touch.

Because the tonearm is electronically driven, not manual, you never risk dropping it accidentally and scratching a record, or damaging the stylus.

The reason for this miracle is the minute infra-red scanning beam in the head that reads the surface of the record and directs the tonearm to follow your instructions.

And it does it with absolute freedom, because the servo-motor that drives the tonearm is decoupled the instant the stylus goes into play.

You don't have to cue manually either: electronics takes care of that, too. In fact, the infra-red eye will return the stylus to the same groove it left, within a fraction of a revolution. Even the best damped cue ever can't provide such accuracy. Or safety.

The Accutrac 4000: the great protector.

Everything about the Accutrac 4000, from the perfect freedom of the tonearm to the logical placement of the controls on the dustcover to the logical placement of the controls on the dustcover has been done for one reason: to extend the life of a record.

Which is why, once you've played the Accutrac 4000, you'll never be able to trust your records to another turntable again.
are now obsolete.

The Accutrac 4000
more talent than any of Mr. Jahn's preferences. Praising those artists while insulting the Kinks is like choosing a cassette recorder over a full-blown studio!
Mark N. Zimmerman
Kingston, Pa.

Expressions of Concern

I am afflicted with amyotrophic lateral sclerosis, better known as Lou Gehrig's disease. It is characterized by a wasting away of the muscles, almost invariably resulting in death. I am in a wheelchair now; later on, when there are no longer any muscles left to move, I'll be confined to bed. Passionately fond of classical music and with a lively interest in stereophonics, I felt such diversions would tend to make my life more endurable. I wrote to many large producers of high fidelity equipment asking them to sell me, at their own production cost, such items as were cosmetically marred (perhaps a few scratches here and there) or those that had been superseded by newer models. Trying somewhat unsuccessfully to live on Social Security disability (no pension, no private insurance, no additional income of any kind), I have nothing left to spend on "trifories." About 50% of those I contacted responded in some way; of those who did, approximately 40% offered to sell at the dealer's cost (note that they wouldn't sacrifice their own profits) and most of the remainder wrote that it would be contrary to "company policy."

A few really showed some concern. Onkyo (bliss it), less than two weeks after my letter, had delivered to my door a brand-new Model TX-330 stereo receiver, at no charge whatsoever. Koss, AKG, and Sennheiser contributed their top headphones: Columbia, Capitol, Philips, and Deutsche Grammophon sent large quantities of records, and DG included a personal greeting from members of its staff, which was worth more to me than all the gifts. Musical Heritage Society donated scads of pious records, including, touchingly, Gilles' Requiem, and several books on nutrition whose advice, if faithfully followed, would make me well. Thinking of these few expressions of concern wrings a tear from my eye.

P. B.-
North Hollywood, Calif.

Met Broadcast Discs

In "Behind the Scenes" for August, you say, "For the second consecutive year, the Metropolitan Opera is offering a disc edition of one of its historic broadcasts to all contributors of $100 or more."

"I'm afraid there is a mistake here. This is the third such offering by the Met. The first one, preceding Madame Butterfly and this past season's issue of Tristan and Isolde, was a recording of the Met's first regular Saturday matinee broadcast sponsored by Texaco back in 1940. The Marriage of Figaro. I heard the first offering made more than once on the broadcasts during the 1973-74 season--Milton Cross was still alive then.

Jack Kennedy
Tucson, Ariz.

Tristan is indeed the third consecutive offering. Incidentally, Conrad L. Osborne reviewed this album in the October issue and adds a postscript in the "Essay Reviews" section of this issue.

Record Slipcases from Smith

I am sure that there are many record collectors who mourn the passing of those elegant slipcases for LPs from the H. Royer Smith Company (HRS No. 7).

I have just been informed that Smith would be willing to produce a special run of two hundred or more cases--certainly more than I myself need or could afford all at once. If anyone is interested in obtaining some of these cases, by all means let's join forces. I would be glad to act as the agent or intermediary.

Edmund A. Bowles
3234 Valley Lane
Falls Church, Va. 22044

Correction

In your September article on "New Equipment for 1977"--and in the accompanying key to your cover photo--you erroneously refer to our new top-of-the-line cassette deck as the Akai GXC-5600. It should have been identified as the GXC-5700.

Our company was founded at the time of rapid developments in the field of magnetic tape recording. During this period there were few machines available, but they revolutionized professional sound recording. This advancing technology soon introduced a new era to the amateur recordist, because it was now possible to record sound on a reusable storage medium, which could even be cut and spliced together again.

It is with considerable pride that we note our participation in these developments right from the very beginning.

As long ago as 1954, our recorders were already equipped with the professional three motor drive system. What is it that makes REVOX recorders so successful?

The answer to this question must take into account the changes which have occurred in the consumer since the early days of recording. Today's audiophiles have an increasing awareness of true quality, and only a first-class product has a chance of being accepted by the serious recording enthusiast.

The fact that REVOX tape recorders are in constant demand in such an increasingly quality-minded market is indicative of their high standard of construction and performance, but it also reflects the increasing sophistication of the serious audiophile, whose requirements can only be met by a small number of select products.

Our involvement in the design and production of professional equipment has led us to think in terms of professional standards, even for our consumer products. This approach produces far-reaching effects; the performance of REVOX recorders with respect to durability, mechanical and electrical stability, and closely-held specification tolerances, will stand comparison with professional equipment, and this is our main contribution to the realization of true high fidelity sound reproduction in the home.

Does your equipment meet the high standards you require? Visit your nearest REVOX dealer or write to:

REVOX 155 MICHAEL DRIVE SYOSSET, N.Y. 11791

CIRCLE 55 ON READER-SERVICE CARD
A Very Different Stereo Receiver From Advent.

The new Advent Model 300 is a unique stereo receiver that, within its power capabilities, is designed to sound as good as the best combinations of separate-chassis preamps, tuners, and power amplifiers.

At a suggested price of $259.95, the Model 300 receiver is designed for people who can appreciate but generally not afford the level of sound quality produced by the finest audio components. We think there are a lot of people in that category.

The Holman Circuit.
A major reason why the Advent Model 300 sounds the way it does is an entirely new phono preamp section that is audibly equal or superior to any separate preamp at any price. Designed by Advent's Chief Electrical Engineer, Tom Holman, the new circuit is the product of exhaustive listening, testing, and rethinking.

It came about largely because our checking of preamps of all kinds and prices kept turning up no reliable correlation between test measurements and audible quality. That turned out to be because standard measurements for preamps weren't checking their performance under actual conditions of use—a fact that became the center for our own development effort.

We found, for instance, that frequency response measurements weren't being made with signals from phono cartridges, but simply with the use of test generators. This meant that important impedance interactions between preamps and various cartridges of different design—causing very audible differences in actual high-frequency performance—weren't showing up in standard tests. Phono noise measurements also didn't cover the effects of cartridges. And asymmetrical waveforms representative of music weren't being employed to check overall performance under in-use conditions.

If you would like a full technical description of how the Holman Circuit came about as a result of findings like these, we will be happy to send you a reprint of a paper prepared by Tom Holman for the Audio Engineering Society. (Please see our coupon.)

The main facts about the new preamp, however, are these:
- It provides the full performance potential of any cartridge used with it.
- Its effective noise is as low as any preamp's.
- It handles actual asymmetrical musical signals flawlessly.
- It incorporates a unique subsonic filter that eliminates the often severe performance problems (such as acoustic feedback, amplifier instability, added IM distortion in power amps and speakers, and loudspeaker damage) caused by ultra-low-frequency pulses generated by warped and eccentric records and by subsonic turntable rumble. This unique filter is far more effective than a rumble filter, with absolutely no audible effect on wanted low frequencies.

And the preamp sounds, as you will hear, the way we say it does.

The Tuner.
Like the Model 300's preamp, its FM stereo tuner is designed for optimum performance under real conditions of use.

That means it is deliberately not designed for the
The Amplifier.

The Model 300's amplifier will provide ample acoustic output levels with virtually any speaker we know of (including all Advents) under the usual home listening conditions — with no sense of strain or constriction. Yet it's rated very conservatively at a minimum of 15 watts per channel into 8 ohms, 40-20,000 Hz, with less than 0.5% THD. The facts here are well worth going into.

Because of the emphasis on power output in audio advertising, manufacturers in the highly competitive receiver market are under pressure to offer the highest rated power per dollar. To do so, the usual design approach operates output transistors at or near their limits and then protects them with voltage/current limiting circuitry.

A receiver designed that way will deliver its rated power into the usual test load (a resistor connected across the output terminals) without difficulty. But a speaker presents a more complex load than a simple resistor, and when a receiver of such design operates into a loudspeaker, the protective circuitry usually triggers at well under rated power. The result is that a receiver of that kind just isn't as powerful, in real use with a speaker, as its rating indicates.

The Model 300 approaches things differently. It uses output transistors of the type usually found in units of twice the rated power. It doesn't operate them near their limits, and so doesn't require the usual protection. It will deliver its full rated power into a speaker load, and the actual loudness it can achieve before clipping is more than ample for driving speakers under home conditions.

We realize it may be hard to believe that a receiver rated at 15 watts per channel can do the full job with a pair of speakers. But this one will — and we say this as a speaker manufacturer with a good knowledge of what's needed for satisfying overall sound. It does so well, in fact, that when we introduced the Model 300 to audio salesmen and asked them how powerful they thought it was after hearing it, they averaged a guess of twice its rated power, and some guessed it at four times the reality.

Equally important, the output design of the Model 300 insures that there will be no audible side effects during clipping at maximum output. The protective circuits in many receivers can and often do cause disturbingly audible side effects during clipping, and some of them generate high-frequency pulses that can damage loudspeakers. The Model 300 doesn't.

The Mobile Model 300.

In addition to the standard Model 300, we are also manufacturing a special version, the Model 300/12, with a switching-mode power supply for use on a 12-volt electrical system in a van or boat or wherever you want to use your Model 300. It will offer you the same level of sound quality as the standard version, but the sound will be every bit as good.

Not only does the Model 300 offer a tuner-preamp output jack for this use, but it also has an input jack for use with a switching-mode power supply. The Model 300 is consequently designed for the best combination we can manage of sensitivity, selectivity, and overload margin. It shows up virtually one-to-one in this crucial combination in direct comparison with most separate tuners costing far more.

The tuner section also offers Phase-Locked-Loop multiplex circuitry that provides excellent stereo separation and unusually effective suppression of the common "birdie" interference from stations that broadcast background music and other subsidiary SCA signals along with their regular stereo transmissions.

And the Model 300's unique vernier tuning system and LED tuning indicator make for consistently easy, precise tuning year after year, with no chance for dial-cord slippage and apparent changes in station location on the dial. Perfect tuning is indicated when the two LED's light with equal intensity.

Advent Corporation, 195 Albany Street, Cambridge, Massachusetts 02139.

Please send:

□ Your literature on the Model 300.
□ A copy of Tom Holman's paper on the Model 300 for the Audio Engineering Society.

Name______________________________
Address____________________________
City__________________________State__Zip__________
ONE YEAR AGO this month the record industry lost a great personality when Maurice Rosengarten died in his mid-seventies in Zurich. Not many people outside the industry knew him at all, for he hated publicity and loathed photographers. He is, I am sure, at this very moment negotiating with the Highest Powers to have me silently, slowly, and undetectably eliminated for daring to write a single word about him.

Yet I must take that risk, for he was an amazing man. It was Rosengarten who dragged Decca/London kicking and screaming into Europe in the late Forties. To say that he signed up some famous names—Ansermet, Krips, Krauss, Kleiber, and Knappertsbusch, along with a host of others—at a time when the rest of the European record business was in disarray points only to his business acumen. What tends to be forgotten is that he launched the recording careers of many artists who at that time were unknown outside their own localities and whose records precipitated their international careers. Georg Solti was a struggling refugee pianist in Zurich when Rosengarten let him make his first records with violinist Georg Kulenkampff; later Rosengarten arranged Solti's first recordings as a conductor. He took on an unknown Italian soprano named Renata Tebaldi and an unknown American pianist named Julius Katchen. Much later he signed up a young conductor who had only emerged from his studies in Vienna: His name was Zubin Mehta.

Rosengarten was passionately proud of what he regarded as his classical catalogue. He responded to enthusiasm, and I cannot recall that he ever turned down an artist recommended by me or by Terry McEwen in New York. He judged artists by their personalities. Of Solti he once said, "I knew he would succeed in whatever he did from the first time I met him." Of Backhaus he said, "Everyone says he's finished, washed up, but I know from his eyes that he isn't." (And he wasn't.) Despite all this, I don't think Rosengarten ever got much pleasure out of listening to music. What he really liked was a bad gangster movie, and the worse it was the better. We called him Uncle Maurice. He was small, dapper, and as sharp as a hawk. Very few if any artists ever got the better of him, and on the rare occasions when he made a mistake he could usually talk himself out of it.

The purpose of that dinner was to persuade Gunther Treptow, the eminent German tenor, to tear up a contract he had signed only three hours earlier and get him to agree to another in which his royalties would be cut by much more than half! It was, I thought, an impossibility: Not even a tenor would agree to that. But Uncle Maurice did it. First he admitted that a terrible mistake had been made and thereby enlisted sympathy; he then, ever so gently, questioned the tenor's worth: Was he not perhaps overpriced even at the lower royalty? While the tenor was pondering that issue, Uncle worked in the names of several rival tenors, all of whom, he implied, were not only available, but brimming with charity. Then in an act of overwhelming generosity he swept them all away as being wholly unworthy, with which opinion Treptow enthusiastically agreed. Thus the process of psychological breakdown was slow but sure, and by the time we reached the coffee stage the tenor was fumbling with his pen, and the old contract was torn up and the new one signed. I could not believe my eyes or ears, for like a great conjuring trick the essence of the matter was its devastating simplicity. On the way out I felt I had to congratulate Uncle Maurice on his performance if not on his purpose. His reply was enchantingly Goldwynesque: "It's duck's water off my back."

And so it went on for almost twenty years of my life. He could be infuriat-

Uncle Maurice

by John Culshaw
Anyone who tells you that a single play turntable is better than one of these has never checked out one of these.

These are the five belt-drive turntables from B-I-C (pronounced “bee eye cee”). All feature low speed 300 rpm motor, program system, and superior tone arm that give them the high performance of comparable manual turntables plus multiple-play capability. For details pick up our “5 Turntables” folder at high-fidelity dealers or write to British Industries Co., Westbury, N.Y. 11590.
The Miida Stereo System

It delivers everything we promise.

We're sure! Because every promise we make is backed by test-proven facts.

Start with the Miida 3140 AM/FM Stereo Receiver. You get 43 watts per channel minimum RMS, both channels driven at 8 ohms, from 20Hz to 20kHz with no more than 0.4% total harmonic distortion.

Tie it into the Miida T3115 Direct Drive Turntable. It gives you such consistent rotation that wow, flutter and rumble are virtually eliminated.

To complete this remarkable system, connect a pair of Miida SP3150 4-way Speakers for a dynamically balanced stereo system that delivers sound with stunning brilliance and clarity.

Ask your dealer to show you a Miida Stereo System. It delivers everything we promise...and that's a fact.

For more information write to: Miida Electronics Inc., a subsidiary of Marubeni Corp., 205 Chubb Avenue, Lyndhurst, New Jersey 07071, (201) 933-9300.

Miida 3140—AM/FM STEREO RECEIVER

Phase locked loop multiplex; IHF sensitivity: 2.0
Capture ratio: 1.5 dB; IF rejection: 70 dB

Miida T3115—DIRECT DRIVE

TURNTABLE Stroboscope allows you to adjust speed with pinpoint accuracy; 2-speed adjustments; 13½" turntable; 6-pole electronic motor; S-shaped tone arm with anti-skate

Miida SP3150—4 WAY SPEAKER SYSTEM

Overall frequency response: 25Hz to 22kHz ± 5 dB; Impedance: 8 ohms; Built-in crossover: 750Hz-1800 Hz, 7.5kHz, 12 kHz; Power handling capability 55 watts maximum music power

Miida ...the stereo specialist.
If you can see a difference, imagine what you’ll hear.

You're looking at the solution to one of the oldest problems in audio—how to protect records from wear, while at the same time preserving full fidelity.

It's called Sound Guard* and it's remarkable.

Independent tests show that discs treated with Sound Guard preservative played 100 times display the same full amplitude at all frequencies and the same absence of surface noise and harmonic distortion as “mint condition” discs played once.

A by-product of dry lubricants developed for aerospace applications, Sound Guard preservative is so smooth it reduces friction, yet so thin (less than 0.000003") it leaves even the most fragile groove modulations unaffected.

Len Feldman in Radio Electronics reports “At last! The long awaited record-care product has arrived. It preserves frequency response safe for all discs, from precious old 78’s to the newest LP’s. Sound Guard preservative, in a kit complete with a non-aerosol pump sprayer and velvet buffing pad, is available in audio and record outlets.

Sound Guard keeps your good sounds sounding good.

*Sound Guard is Ball Corporation's trademark for its record preservative. Copyright © Ball Corporation, 1976.
In the 14XP column system, American Monitor Company introduces column design to recording studio monitor quality speakers.

14XP captures tight bass, clear midrange, vast high frequency dispersion—and releases the precise sonic images demanded of the finest studio monitors. All in an efficient, appealing column.

Reach for the 14XP at your franchised American Monitor Company dealer soon.
We erred on the side of modesty when we published the specifications and performance data of our Quartz Locked AM/FM Stereo Receiver. Then Hirsch-Houck, a famous independent audio testing lab, put our TX-4500 through the mill on their own. You know who they are ... possibly the best known in the business. They said and we quote: "... virtually impossible to incorrectly tune in an FM station."
"... sound quality in FM reception with the TX-4500 will be determined only by the quality of the broadcast program."
"... when playing records the sound had a definition and clarity that were unmistakable."

In fact, they compared the TX-4500 favorably with component tuners and amplifiers, and we didn't lose. While we claimed the TX-4500 would deliver 55 watts per channel, minimum RMS at 8 ohms, both channels driven, from 20 Hz to 20 kHz with no more than 0.1% Total Harmonic Distortion, they found Total Harmonic Distortion less than 0.02% at middle frequencies, 0.09% at 20 Hz, and 0.04% at 20 kHz.

We said IM distortion was 0.1% at 1 watt. They found it between 0.01% and 0.02% at most power levels from 1 to 40 watts.

You should also know about our FET/4-gang variable capacitor front end. Our circuitry with 70 transistors, 8 IC's and 59 diodes, plus the FET. About provision for three sets of speakers and three tape recorder circuits, each controlled by its own pushbutton.

You might also be interested in detented tone controls and center detent balance control. Phase Locked Loop Multiplex.

But mostly, you have to see what Quartz Locked tuning does, verified by the lab that the system invariably resulted in the lowest possible distortion and noise and best stereo separation the receiver is capable of.

There's no way we can tell you everything about our "Studio on a Shelf". There's too much, and we're too modest. But, you can find out at your Onkyo dealer. He may even have a copy of the lab report. If not, write us for a copy.

While you're at it, look into the TX-2500 also. It costs a little less than the TX-4500 and performs almost as well. Instead of Quartz Locked tuning, the TX-2500 features Servo Locked tuning. In our own modest way we have to say it's pretty good.

So, if you can't go for the top of our line, you can come pretty close. And the best place to start is with an Onkyo dealer.

*Popular Electronics, August, 1976.
Could the ultimate system be all Crown?

It depends on how you define "ultimate." But Crown may be the only top-quality, state-of-the-art manufacturer whose components could build a complete, ultimate hi-fi system.

For instance: A CX-824 tape deck, world-renowned for reliable performance. Connected to an IC-150A pre-amp. With the signal amplified by a DC-300A power amp, proved in many thousands of hours of professional use. Output controlled, monitored and switched by an OC-150. Possibility a VFX-2 for personal control of crossover points. And sound faithfully reproduced by ES-212 electrostatic speakers.

All Crown. We think that system would be somebody's ultimate. Certainly ours. Maybe yours. Write us today for the name of your nearest Crown dealer. He'll talk to you — ultimately.

FREE McIntosh CATALOG and FM DIRECTORY

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The piano that is becoming legendary. Pianists who have played the nine-foot-long piano—and some of Oscar Peterson's finest albums have been made on it—say it is an amazing instrument.

Clare described it as "the most magnificent instrument I have ever touched in my life," after he used it for his own newest recording for MPS. "Double Exposure," a two-disc set. "You couldn't bang it. The harder you hit it, the more it produced. It was impossible to overplay it."

The piano has three microphones over the strings; a fourth picks up room sound. The cables are concealed in the walls, and the actual recording equipment is three floors above the room. Thus the performer is able to sit there in solitude, oblivious to the taping process—the ideal way to record.

"Performance level is always subconscious," Clare said. "In normal recording conditions, that red light causes the conscious to intrude. I didn't have that problem when I was making this album, and that's why it has something my others don't: a totally unselfconscious performance."

"And there was another factor: Because I require love to do my absolute best, and because I had it there—the people were simply wonderful, lovely people—it is one of the best things, I think, that I've done."

The set is made up largely of standards—"Yesterdays," "If," "The Touch of Your Lips," 'Cherokee'—plus a C minor blues improvisation (played on the pipe organ) and one of Clare's compositions, "Thalia," named after his daughter. The organ tracks are particularly fascinating. The pipe organ has been little used in jazz, because the pipes, or ranks, are usually at some distance from the keyboard, which causes a delay till the sound gets back to the player. "On a normal pipe organ," Clare said, "the sound is about half a beat behind, which plays hell with your mind when you're trying to play rhythmic music. It makes it impossible to play jazz."

But Brunner-Schwer has an organ set up to overcome the problem: The pipes are immediately in front of the player, virtually eliminating the delay. Consequently, Clare was able to do things I've never heard from a pipe organ before, particularly in the powerful rhythms of "Cherokee."

The result of those six serene days Clare Fischer spent in Villingen is an album very much worth having. It brings to the fore his virtuosity and lyricism and, beyond that, has a very communicative emotional quality. It shows off, like no other recording he has made, the range, subtlety, intelligence, and versatility of one of the most brilliant musicians I know.
were Q,A

It all started in 1883 in St. Croix, Switzerland where Herman Thorens began production of what was to become the world's renowned Thorens Music Boxes.

For almost a century Thorens has pioneered in many phases of sound reproduction. Thorens introduced a number of industry firsts, a direct drive turntable in 1929, and turntable standards, such as the famed Thorens TD 124 Model.

Over its long history Thorens has learned that an exceptional turntable requires a blend of precision, refined strength, and sensitivity. Such qualities are abundantly present in all five Thorens Transcription Turntables. Speaking of quality, with Thorens it's the last thing you have to think about. At Thorens it's always been their first consideration. So if owning the ultimate in a manual turntable is important to you, then owning a Thorens, is inevitable.

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- memory rewind
- 3-step independent bias and equalization
- 2-step peak (+3dB, +7dB) level indicator
- newly developed Ferrite Guard Head and more.

The AIWA AD-1800. It takes guts to be a winner.

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CIRCLE 2 ON READER-SERVICE CARD

HIGH FIDELITY MAGAZINE
Please clarify the cassette tape formulation/Dolby relationship. Your magazine has repeatedly emphasized the necessity of Dolby realignment when using SA tape with standard chromium-dioxide bias and equalization. This is stated to be due to SA's 2-DB higher sensitivity. Why then, have I heard no such warnings about Dolby realignment for ferric tapes with higher than normal sensitivity? In your August tape report, some of the "standard" tapes were at least 2 dB more sensitive than others. I have been using some of the more sensitive ferric tapes; am I now to learn that the added expense was wasted on tapes that cause Dolby mistracking and audible degradation?—Gary Prok, North Olmsted, Ohio.

A recordist using a top-of-the-line tape such as TDK SA would very likely be looking for the best performance available from a cassette recorder and, therefore, be concerned with details as fussy as 2 dB of Dolby mistracking (which is just about audible). On the other hand, a conventional ferric tape, being cheaper, is a more plausible choice when performance requirements are not as critical—and small errors in Dolby tracking are more tolerable. But in principle you are correct: A mismatch can exist when the recorder is set up for one tape and a more sensitive one is used, whether ferric or "chrome." For practical purposes, "audible degradation" is the key phrase, so use your ears.

I have been told by a friend that a less massive tone arm would probably be capable of "riding out" the badly warped records I have purchased from RCA and London Records during the past year or so. I own a six-year-old Empire 398-A turntable/arm unit that, in combination with a Shure V-15 Type III cartridge tracking at 1.5 grams, has no difficulty in "passing all the tests" on Shure's second-edition "trackability" test record.

My Empire arm can play some badly warped records, but there have been a few so bad as to cause the tone arm to jump several grooves. I like my turntable; should I replace it with a unit that will ride the grooves better?—H. J. Martin Jr., Abilene, Tex.

Any reduction in the mass of the tone arm/cartridge combination will improve the tracking of warped discs, so it is reasonably certain that your Empire/Shure setup can be outperformed in this respect. But I prefer to choose a tone arm and cartridge on the basis of sound quality and how light a tracking force is required for operation, rather than their ability to cope with recordings that are patently suffering from poor quality control.

I have aging equipment and wish to replace it gradually. The system now consists of KLH-6 speakers (twelve years old), a Kenwood KR-100 receiver (seven years old), and a Dual 1218 turntable with Stanton 581EE cartridge. Can you tell me where to begin?—Charles H. Stevens, Ossining, N.Y.

You can really start anywhere as long as you have some idea of where you want to end up. For example, if you expect eventually to get a high-powered receiver, be sure that the speakers you choose will be able to use the power effectively. Since the speakers are the oldest, they are good candidates for replacement, as is the phono cartridge (whose stylus is certain to have worn and which has been surpassed by several models, including the Stanton 681EE).

I have recently become interested in classical organ music, and I find that when I play it through my system there is a distinct loss of definition in the lower bass, particularly when two or more bass pipes sound simultaneously. My speakers are Martins, Cathcart type, and appear to include the following drivers: two 12-inch woofers, one 5-inch midrange, two cone-type tweeters. On other types of music—driven by a Marantz BB (vacuum-tube) integrated amp fed by a Shure V-15 Type III—they produce fine, wide-range sound, but my dissatisfaction with the organ sound has led me to think of replacing them, either with Allison (Ones or Twos), Belle Klipsch, Magneplanars, or Koss or KLH electrostats. Can you give any suggestions?—Ronald B. Levine, Philadelphia, Pa.

Should you decide that new speakers are the way to go, the Allison and Klipsch models are probably best for what you have in mind, although both have limitations as to where they can be placed in the listening room. Allison's warranty assures that system response will not be down by more than 8 dB at 29.5 Hz, but organ music may make demands that exceed even this. An add-on subwoofer for each channel (both can be combined into a single subwoofer if a small compromise is tolerable) operating from, say, 40 Hz on down is another possibility. Whatever the virtues of a panel-type speaker, such as the Magneplanars, or the KLH and Koss electrostats, extreme bass response is not one of them.

My albums have lost clarity and sound scratchy. I like to think that they are all in good condition; I take care of them and clean them before each playing. My phono cartridge, an Audio-Technica 13E, is about ten months old and gets three to four hours of use per day. Should the cartridge be replaced already?—John Teeler, Mountlake Terrace, Wash.

It's not the cartridge, but the stylus—much cheaper to change, by the way—that seems to need replacement. By my own estimate, it has played for 900-1,200 hours, easily enough to wear it to the point where your records are in danger. Should you decide to audition new cartridges anyway, be sure to use a new disc. But at least get a replacement stylus—and don't wait!

It is my understanding that CD-4 discs are recorded using the JVC ANRS system (Dolby compatible). Since this is the case, would a CD-4 cartridge used in a stereo system along with proper Dolby decoding reduce over-all surface noise by the now nominal 10 dB? I tend to enjoy the "hotter" CD-4 discs but am turned off by the added surface noise. Would stereo discs serve the purpose and cost less money too?—Weldon P. Corbitt III, Pensacola, Fla.

While it is true that JVC's ANRS is used in making CD-4 discs, only the difference signals—the ones modulated onto the high-frequency carrier—are treated in this way. These signals are never directly accessible to the user of the system; so to try to decode them via Dolby won't work. Some stereo discs have less noise than CD-4 discs; all stereo discs have two fewer channels.

I use 15-to-20-foot lengths of 18-gauge wire to my speakers, with a very high power amp. I was told that 14-gauge "solid" wire will give better results under all conditions, even when using modest power. Is there any truth to this?—Peter Hoogland, Ludlow, Mass.

As far as your amp is concerned, the wires look like resistors connected in series with your loudspeakers. For a 20-foot run of two-conductor 18-gauge wire the equivalent resistance is slightly less than 0.3 ohm, which is negligible compared with the resistance of your speaker voice coils. A similar run of 14-gauge wire would measure just under 0.1 ohm. So the advice you were given, while conceptually correct and certainly well taken, for longer speaker leads, probably would make no appreciable difference with your system.
Only three turntables in the world offer True Tangent Tracking.

Bang & Olufsen, Rabco, and the new Garrard GT55.

They play your records precisely the way the original masters were cut, with the stylus held at a 90° tangent to the groove. They eliminate harmonic distortion caused by tracking error.

One of the three is also fully automatic in both single and multiple play. Its tonearm is low-mass magnesium, balanced on jewel pivots.

Yet it sells for the lowest price of all three—as much as $400 lower!

The new GT55.

By Garrard.
Come and sit inside a song.

Your favorite tapes and records are loaded with intricacies of sound that most speakers don’t let you in on. But the Koss HV/1LC’s deliver your song the way the musicians played it. All the delicious touches of musical perfection unfold around you, putting you deep inside the tune. Taking you to a place where the honey-smooth power of the lead singer’s voice is in delicate balance with the instruments and back-up chorus. So that you’re presented with every colorful spark of talent, from all angles—the way you’d hear it if you were standing in just the right spot on stage. And Koss HV/1LC’s deliver all ten audible octaves, bringing you every ounce of everything from the low down throb of the bass, to the up-sweeping highs of the violin section.

And while the HV/1LC Stereophones bring you every note, their hear-thru design lets you catch every comment from people around you. Which in many cases may go like this: “Let me try them.”

So why not visit your audio specialist and slip into the exciting Sound of Koss: the HV/1LC’s with volume balance controls, or the HV/1’s and HV/1a’s. Or write us, c/o Virginia Lamm for a free full color catalog of all our products. Get a pair of Koss High Velocity phones and c’mon inside. The music’s fine.

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The Next Revolution in Audio?

Perhaps at some time you have felt in the mood to listen to your music system and proceeded to flip the requisite switches and push the necessary buttons, only to be rewarded with silence sufficient to prompt a cold shudder and visions of large repair bills, if indeed repair service can be found. Then, possibly, you took a second look and found, to both your relief and chagrin, that you had neglected to turn on some vital component in the signal chain. Or perhaps, as is more likely, you find your system recalcitrant after your spouse has made an unsuccessful attempt to listen to an FM program. Or maybe the butler did it—or the babysitter.

Such happenings give us cause to reflect upon the relative complexity of operating a component music system. Certainly, for those of us who have developed a passionate interest in equipment a control panel rivaling that of a Boeing 747 is the hallmark of flexibility, but there are those less technically oriented people who cling stubbornly to their compacts and consoles, feeling that lowly equipment with a modus operandi within one's ken will ultimately perform better than fancy stuff that boggles the mind. And who can argue with that?

Things were once so with automobiles, until the moguls of Detroit realized that those who couldn't shift for themselves would welcome cars with automatic transmissions. We anticipate a similar change in the design and marketing of audio components; in fact, the change is already under way.

One interesting example of the type of thing we mean can be seen in the EICaset. This new system has the capability for automatic setting of bias and equalization and Dolby encode/decode, and even for finding selections on the tape. Another is ADC's Accutrac turntable, which allows a listener to program the bands on a disc so that they are played automatically in any order—and with the additional option of remote control. We can anticipate further developments in which the user puts a record on the turntable and presses a button that automatically activates the tone arm, sets the preamp to PHONO, turns on the power amp, and puts the volume at a preset level, which can be overridden if desired. ESS showed a prototype preamp at the Consumer Electronics Show last summer that handles volume in just about this way.

While we are at it, why not have a control center that allows the choice of phono, tape, or FM with everything set up just right and ready to go at the touch of a button? The Remote Power Receptacle from Audio Research, capable of activating an electronic crossover and three power amps when the preamp is turned on, is certainly a step toward this goal, and practically all tuners can already set up for stereo or mono unaided. Another promising innovation is seen in the BIC Venturi Formula 5 and 7 loudspeakers, both of which are capable of detecting amplifier clipping and excessive power levels and of warning the listener to reduce the gain. Better yet, in our opinion, would be a system whereby the gain would be reduced automatically. (Who wants to know from "clipping" and "power handling"?) The Formula 5 and 7 are already "smart" enough to set their own loudness compensation—which is really a fine idea, since the loudspeaker "knows" what its own efficiency is, while the amp and preamp do not.

We can envisage a system that recognizes four-channel program material, determines the format (if present warfare continues to rage), and makes all necessary adjustments. And it might also send all the two-channel material through an ambience synthesizer or some similar device. Truly, the possibilities are endless.

But won't all this be extremely costly? Probably—at least at first. Prices usually fall as a market grows larger, and in any case we suspect that there are a lot of people ready to let go of dollars if they can get the conveniences they want. We also believe that the same philosophy of convenience that made tape via cassettes and cartridges commercially viable can become a boon to both record collectors and audio manufacturers.

Antiquarianism (cont.)

In the last issue we reported that Pickering and its sister company, Stanton, were offering—for their own pickups—the special stylus shapes and sizes required by collectors of antique records. Now we have heard from another possible supplier.

Dixie Diamond Tool Company tells us that it has made special diamond styli for old Edison acoustic pickups, etc., and can custom-make truncated tips or other configurations. Costs vary depending upon the stylus required and the labor involved in replacing the old one; prices generally range between $30 and $50. Complete stylus assemblies are not supplied.

If you're a collector of old records and are interested in Dixie's services, write to Dixie Diamond Tool Co., Inc., 6875 SW 81st St., Miami, Fla. 33143, Attn.: Mr. E. J. Marcus.
Info on SQ—From the Source

A twenty-two-page illustrated booklet, designed to answer commonly asked questions concerning four-channel music reproduction and to explain to the prospective buyer how to go about converting an existing home stereo system to four channels, is available free of charge from the CBS Technology Center. The pamphlet, titled Spatial High Fidelity Through SQ Quadraphonic Recording and Broadcasting, contains sections on the encoding, recording, and decoding systems used to create ambient and surround sound and a summary of stereo-to-quad synthesis.

To receive it, send a request together with a stamped, self-addressed envelope of approximately 8½ by 4 inches to Information Services Department, CBS Technology Center, 227 High Ridge Rd., Stamford, Conn. 06905.

More Software for Betamax

Paramount Pictures Corporation and Sony Corporation of America have jointly formed Sony/Paramount Home Entertainment Center, a company for the distribution of video hardware, feature motion pictures, and educational software to the home consumer market. This marks the first cooperative venture by major hardware and software suppliers in the field of home videotape entertainment.

New engineering in Kenwood tuner

Kenwood's most recent offering in the tuner category is the KT-7300, featuring a dual-gate MOS-FET in the RF stage and phase-coherent ceramic filters in the IF stage. The FM decoder, using a multiplier and linear phase shifter for a bandwidth over 1 MHz, includes a phase-locked loop circuit and individual LC filters for each channel. Ultimate signal-to-noise ratio is claimed to be 68 dB in stereo and 73 dB in mono. Stereo separation is rated at 35 dBi from 50 Hz to 10 kHz and selectivity at 80 dB. The KT-7300 is also equipped with a 25-microsecond de-emphasis switch for use with Dolby noise reduction and terminals for an oscilloscope. The KT-7300 sells for $259.95.

D-1A from Design Acoustics

Design Acoustics has added the D-1A to its loudspeaker line. The two-way acoustic suspension system has a brushed aluminum enclosure, whose thin-walled construction results in an increase in volume that is said to extend low-frequency response by 6 to 8% over conventional enclosures of similar dimensions. Frequency response is rated at 50 Hz to 15 kHz ± 0.5 dB. Crossover occurs at 3 kHz. Suggested retail price of the D-1A is $100. An oiled walnut veneer model, the D-1W, is available for $115.

1650 equalizer from Altec

Altec's new 1650 active equalizer is designed to meet the requirements of accurate equalization in a variety of industrial and professional sound systems. The 1650 has twenty-eight band-rejection filters stepped at one-third-octave center frequencies from 31.5 Hz to 16 kHz. Each filter gives up to 15 dB attenuation. Crossover between adjacent sections is at –7 dB providing, according to Altec, ripple-free summation over 85% of the range. Rated frequency response is 20 Hz to 20 kHz ± 1 dB. Total harmonic distortion is not more than 0.5% at full rated output. A hinged panel cover is included to prevent accidental movement of the gain or filter controls. The 1650 costs $840.
We thought a lot about loudspeakers before we began building them.
Here's [some of] what we concluded.

The first premise is obvious. Great sound.

Before we sat down to design our loudspeaker line, we chalked some fundamental goals on the blackboard. Such as extended frequency response, all the way from the lowest bass notes to the highest overtones high fidelity program material may contain. And evenness of response, to avoid predominance of one frequency over another.

Cardinal principles punctuate the opening pages of our engineering log. Thou shalt not compromise accuracy or introduce distortion. Honor transients, and faithfully reproduce them. Achieve wide power response and superior dispersion.

Not that these and other fundamental dictates are unfamiliar to manufacturers of high quality speakers. Where Presage differs from the flock is in our rigid adherence to them, our almost fanatical refusal to make compromises which, at best, result in a passable high fidelity loudspeaker.

A loudspeaker is seen as well as heard.

Sonic excellence is only a beginning in the process resulting in a finished hi-fi speaker. At Presage, we set out to build loudspeakers for home, not studio listening, one reason we developed our unique Piston Bass system (patent pending), which results in superior low frequency response from an enclosure small enough for bookshelf mounting.

Other than our budget model, every Presage loudspeaker is encased in natural oak, walnut or rosewood veneer. A flat lacquer is then applied to the wood, allowing it to retain the natural shadings of its grain as well as affording lasting protection against fading or discoloration.

We then face each speaker with a grille cloth of stretched jersey, chosen as much for its sonic transparency as for elegance. Then comes the Presage logo, constructed of solid brass.

Ideally, a speakermaker is a matchmaker.

A high fidelity loudspeaker is a system, an integrated network of component parts no better than its weakest link. Every Presage loudspeaker begins with parts carefully matched, chosen for quality and checked to insure uniform standards are maintained.

Because a loudspeaker functions as part of a matched system of audio components, Presage speakers are designed to fit logically into systems consistent with their price categories. You can connect our moderately priced Model 15 to a 10 watt receiver, for example, without sacrificing its capacity for clean response at loud levels. Our more expensive models, while also highly efficient for the broad band of frequencies they reproduce accurately, are engineered to handle power without breaking up under the strain.

To facilitate hookup, we utilize 5-way binding posts which accommodate virtually any kind of connection from spade lugs to bare wire. And every Presage loudspeaker model provides at least one tone control to help match the acoustics of the room in which it must ultimately perform.

Presage
Listen.

Presage Corporation
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Nashua, New Hampshire 03060
(603) 883-7828
Stanton’s lightweight headphone

The Stanton Stereo/Wafer Model XXI headphone uses permanent magnets containing rare-earth elements in what Stanton claims is an important achievement in headphone design. The magnets, smaller than conventional ones, are said to contribute to the frequency response of 20 Hz to 22 kHz ± 5 dB. Maximum power input is 0.1 watts (~10 dBW), and distortion is rated at under 0.5% at 110 dB sound pressure level. The headband, foam-cushioned for comfort through long periods of listening, has a brushed denim covering. Specially designed pivots in the earpieces provide optimum contact with the ears. The Stereo/Wafer Model XXI costs $70.

Lenco’s new turntable line

Uher of America is distributing five new turntables from Lenco. The L-80 is a manual two-speed, belt-drive model with a 16-pole synchronous motor and features an antiskating device and hydraulically damped tone-arm lift system. Rumble is claimed to be -60 dB (DIN); wow and flutter are said to be less than 0.08%. The L-80, which has a friction-hinge dust cover, has a suggested retail price of $139.50. Other models in the line are the L-75/S, L-82, L-84, and L-90, ranging in price from $160.50 to $299.95.

Polk Mini-Monitor system

The Mini-Monitor speaker, a compact version of the Polk Monitor systems, is designed for use in automobiles, vans, aircraft, or other places where space is limited. The Mini-Monitor uses a 1-inch soft-dome tweeter, a 4½-inch bass-midrange driver, and a 4½-inch passive radiator. Minimum recommended amp power rating is 3 watts (4½ dBW), and maximum is 30 watts (14½ dBW). Anechoic frequency response is rated at 60 Hz to 18 kHz, ±2 dB, with a response of 35 Hz to 22 kHz claimed as typical in a listening environment. The price of the Mini-Monitor is $79.95.

Robins’ universal tape splicer

Robins Industries has announced the availability of a new tape splicer for use with both quarter-inch (open-reel or cartridge) and cassette magnetic tape. A tape retention finger, which can be flipped to either of the two tracks, holds the tape in place during splicing. The device, backed with double-faced tape so that it can be attached to a recorder or work surface, uses standard ¾- or ½-inch splicing tape. The cost of the universal splicer is $2.89.

LP storage cabinet

Bundy Crafts of Vermont is distributing an LP record cabinet that will hold up to eighty albums. The cabinet, which was selected for the Design Centre in London, is made of gray and white plexiglass designed to enhance room decor. It can be ordered from Bundy Crafts, R.D. 3, Putney, Vt. 05346 for $39.51 plus $2.50 for postage and handling.
A Price Reduction Gives You No Static

Zerostat—Now $24.95 instead of $29.95.

True electrostatic neutralization without cartridges to replace, cords to plug in or radioactivity.

Better function at a lower price.
**HiFi-Crostic No. 18**

**by William Petersen**

<table>
<thead>
<tr>
<th>INPUT</th>
<th>OUTPUT</th>
</tr>
</thead>
<tbody>
<tr>
<td>A. Argentine composer and author (b. 1897); 3 cantatas based on Aeschylus. Prometheus: book about Scarlatti</td>
<td>179 203 108 34 153 91 59 3</td>
</tr>
<tr>
<td>B. Indication to quicken the tempo (lt.)</td>
<td>93 115 51 2 144 35 131 197</td>
</tr>
<tr>
<td>C. &quot;Old Sweet Song&quot;</td>
<td>111 55 77 170 24</td>
</tr>
<tr>
<td>D. Basque harpist (b. 1907)</td>
<td>96 187 65 9 103 178 168 102</td>
</tr>
<tr>
<td>E. Gloved</td>
<td>202 17 132 39 112 121</td>
</tr>
<tr>
<td>F. Categorized emotional expression, generally associated with C.P.E. Bach (from the Ger.)</td>
<td>40 83 16 158 143 173</td>
</tr>
<tr>
<td>G. Makes a sign of assent</td>
<td>130 78 26 194</td>
</tr>
<tr>
<td>H. German soprano (1831-77); prominent in operas and oratorios</td>
<td>182 201 134 98 46 25 142 152</td>
</tr>
<tr>
<td>I. Low water in pitch caused, for example, by an unready furnable</td>
<td>72 145 10</td>
</tr>
<tr>
<td>J. Book of the Old Testament used as the text of Granville Bantock's Vanity of Vanities</td>
<td>122 80 43 178 1 150 106 64</td>
</tr>
<tr>
<td>K. Ancient Sumerian reed pipe</td>
<td>118 160</td>
</tr>
<tr>
<td>L. Rudimentary fire controlled by 6 finger holes (2 wds.)</td>
<td>116 184 58 155 169 8 38 87</td>
</tr>
<tr>
<td>M. Opera by Tommaso Traetta, with libretto adapted from Bernard's Castor et Pollux (2 wds.)</td>
<td>27 147 163 94 7 175 139 60</td>
</tr>
<tr>
<td>N. Canadian American jazz pianist and composer (b. 1912); collaborated with Miles Davis</td>
<td>190 123 62 31 154</td>
</tr>
</tbody>
</table>

**DIRECTIONS**

To solve these puzzles—and they aren't as tough as they first seem—supply as many of the Output words as you can in the numbered dashes following the Input. Unless otherwise specified in the Input, the Output consists of one English word. Compounds, compound or hyphenated words transfer each letter to the square in the diagram that bears the corresponding number. After only a few correct guesses you should begin to see words and phrases emerging in the diagram, which when filled in will contain a quotation related to music, recordings, or audio. The words in the quotation are separated by darkened squares and do not necessarily end at the end of a row.

Try to guess at these words and transfer each newly decoded letter back to its appropriate dash in the Output. This will supply you with further clues.

A final clue: The source of the quotation—the author and his work—will be spelled out by the first letters in the Output. Reading down the answer to HiFi-Crostic No. 18 will appear in next month's issue of High Fidelity.

**INPUT**

A. Argentine composer and author (b. 1897); 3 cantatas based on Aeschylus. Prometheus: book about Scarlatti

B. Indication to quicken the tempo (lt.)

C. "Old Sweet Song"

D. Basque harpist (b. 1907)

E. Gloved

F. Categorized emotional expression, generally associated with C.P.E. Bach (from the Ger.)

G. Makes a sign of assent

H. German soprano (1831-77); prominent in operas and oratorios

I. Low water in pitch caused, for example, by an unready furnable

J. Book of the Old Testament used as the text of Granville Bantock's Vanity of Vanities

K. Ancient Sumerian reed pipe

L. Rudimentary fire controlled by 6 finger holes (2 wds.)

M. Opera by Tommaso Traetta, with libretto adapted from Bernard's Castor et Pollux (2 wds.)

N. Canadian American jazz pianist and composer (b. 1912); collaborated with Miles Davis
Introducing a new standard in stereo receivers—Heathkit AR-1515

Heathkit hi-fi components have always been characterized by innovative design, precision engineering and performance that puts them a cut above the rest. The new AR-1515 stereo receiver continues that tradition.

The most immediately impressive feature is its digital frequency readout. AM and FM broadcast frequencies are displayed in bright red digits with far greater accuracy than conventional tuning dials. Once you tune the proper frequency, center-channel and signal-strength meters help you "zero in" for optimum reception. And the AR-1515 is the first receiver to offer digital precision and convenience for less than $1000—far less.

The next thing you’ll notice about the AR-1515 is its elegantly simple and functional styling. Unlike conventional receivers (with their sometimes-confusing array of knobs, switches and dials), the AR-1515 puts the controls you use most right up front. Big, firm and positive. Easy to get at. Mistake proof. The secondary controls—balance, tone, speaker switching, filtering, tape dubbing, headphone jacks and others—are cleverly concealed behind a fold-down front panel, so you only need to look at them when you want to use them. The AR-1515, when suitably placed on a shelf or table, has a clean, uncluttered look of real authority and professionalism. Its side panels are solid-walnut—rich and expensive looking. Its front panel is satin-finished aluminum. Its lighted meters, digital readout and function indicators are subtle reds and blues behind a black-out front "window".

But the best thing about the AR-1515 is its performance. The amplifier delivers 70 watts, minimum RMS, per channel into 8 ohms with less than 0.08% total harmonic distortion from 20-20,000 Hz. That means, quite simply, power enough for almost any speaker system, and you simply can’t buy a receiver with lower distortion! FM sensitivity is a station-pulling 1.8 μV, too, so you’ll get more stations even in fringe areas. Even the AM section, often overlooked by others, is one of the world’s finest—designed to bring you real hi-fi quality reception. The phono and aux inputs have sensitivity and overload characteristics good enough to accept the finest phono cartridges and tape decks with no audible strain or struggle. And Heath’s careful design, using only the finest solid-state components in the most advanced circuits, assures that that power and that incredibly low distortion will be a part of your AR-1515 for years to come.

Finally, like all Heathkit products, the AR-1515 is an easy and enjoyable kit to build. With a fully illustrated step-by-step instruction manual that you can follow even if you’ve never built a kit before. The AR-1515 is the best stereo receiver we’ve ever offered—and, at just $549.95, we think you’ll agree it’s the standard by which other receivers must be judged. For more information on the AR-1515 and the entire line of Heathkit audio equipment, send for our FREE catalog. Just circle the number below on the reader service card or write Heath Company, Dept. 8-23, Benton Harbor, Michigan 49022.
225,287 people already know listening is only half the fun

A classic
TEAC's A-2300SX is the latest version of a classic. The most reliable tape deck ever made. As of April 1976, more than 225,287 have been purchased. And they have the lowest incidence of repair and maintenance of any deck on the market today.

What is it about the A-2300SX that makes its performance and acceptance so remarkable?

Three motors
The A-2300SX features TEAC's heavy-duty, 3-motor transport system. Each reel has a motor to assure proper tape tension at all times. A third motor drives the capstan and was designed to allow electrical, instead of mechanical, speed change. No gears. No idlers. Just dependable, smooth operation.

Fingertip control
With three motor transport you get the flexibility of touch button control. You can switch instantly from mode to mode—play, fast forward, rewind, pause and record.

With our new cue lever, editing is made easy. Instant starts. No bounce. No click.

With one touch of the EQ and bias switch you adjust the machine to different types of recording tape. Less noise. Less hiss. Better response.

Three heads
Each of the three basic functions—erase, record and playback—is assigned to a separate head. Each head is designed to perform its specific assignment, and to keep performing, use after use.

These are some of the reasons so many TEAC tape recorders have been sold. Another reason is that so many people get tired of just listening to music.

Listening is fun, of course, but if you really want to enjoy your stereo system, try adding fun...try adding a TEAC A-2300SX. Just remember, you won't be alone.

TEAC®
The leader. Always has been.

TEAC Corporation of America, 7733 Telegraph Road, Montebello, CA. 90640 ©TEAC 1976
In Canada TEAC is distributed by White Electronic Development Corporation (1956) Ltd.
by Norman Eisenberg

High Fidelity
Pathfinders
The Men Who Made an Industry

ARTHUR M. GASMAN
Twelfth in a series

It seemed anything but inevitable that Arthur M. Gasman, who played a large part in making British Industries Company (BIC) one of the biggest marketing successes of the Fifties and Sixties, would find his métier in audio. Before he joined BIC in 1955, he had ranged from graphics and advertising to public-affairs work for the U.S. Office of Civil Defense and personnel work for the U.S. Navy. But the twig had been bent: His father's family had included many musicians, and he had been taken frequently to orchestral and chamber music concerts as a child.

In 1935, Gasman received a B.A. degree, with majors in economics and advertising, from City College in New York. He and a coed named Dorothy, later to become his wife, created the first yearbook of the recently established School of Business there. Gasman taught commercial art for one year at his alma mater and then took an advertising job designing ads, producing finished artwork, and handling production. By late 1936, he and a fellow alumnus had formed their own ad agency. "After furnishing the office," he recalls, "we had exactly $75 left, which was our total capitalization." A printer named Michael Carduner offered Gasman the opportunity to put together a catalogue for Garrard Sales Company, just formed to import Garrard record players from England. Arthur became fascinated with the equipment; it was his first contact with high quality audio machinery.

When the U.S. became involved in World War II, Gasman offered various government agencies a generous portion of his agency's time to produce instructional material relating to civil defense and other support programs. After developing a wartime counterpart of the old ice card that people placed in their windows—Gasman's idea was a "scrap card" for pickup of waste material to be converted or recycled for the war effort—he came to the attention of the Office of Civil Defense and was asked to develop public advice and training programs. In 1943 he joined the Navy, was commissioned, and served as communications officer in an air wing conducting antisubmarine patrols in the North Atlantic. At the war's end the Navy asked him to create incentive programs and readjustment materials, and Gasman spent another year and a half in the Bureau of Naval Personnel and the office of the Secretary of the Navy.

He re-established his association with Garrard Sales, now operating under the name British Industries Company, when he reopened his agency in 1947. In addition to Garrard turntables, the company was distributing Ervin Multicore solder. The next year company president Leonard Carduner, Carduner's brother (he spelled the family name differently), met G. A. Briggs, head of Wharfedale in England, who was in this country looking for a buyer for his book on loudspeakers. (The work, which has gone through five editions since then, has become something of an audio classic.) Carduner ordered a thousand copies, and shortly thereafter the Wharfedale line was added to the BIC product offerings. When the introduction of long-playing and 45-rpm discs resulted in the development of Garrard's three-speed record changer, that too was quickly taken into the BIC family. Soon the firm was handling Leak amplifiers imported from Britain, and two U.S.-designed and U.S.-built product lines, the R-J speaker enclosure and the River Edge equipment cabinets.

During the late 1940s and early 1950s, Gasman and Carduner sensed a rising interest on the part of consumers and "non-pros" in high quality sound, and they set out to make audio gear a consumer item in terms of design and capability. They simultaneously attempted to educate radio-parts dealers (the only ones then offering what we now call componentry) to understand that the real market for these products was not among the dealers' traditional professional and tinkerer clientele, but in a broad range of music-loving laymen.

It was during this same period that a Sales Managers Club was formed by representatives of various manufacturers to define goals and develop means, as a departure from older sales methods used by the much larger and more affluent console and "package goods" radio-phonograph industry. Among its earliest and most vocal members were Carduner and Gasman; the latter, still in the advertising business, attended the meetings with Carduner in the role of amicus curiae. Others included Sidney Harman (who in 1953 turned over his company's account to Gasman's agency), Avery Fisher, Walter Stanton, George Silber (president of Re-O-Kut), and John Cashman (president of Radio Craftsmen). From this nucleus evolved the Institute of High Fidelity Manufacturers—now, shorn of the last word, known as the IHF—which formally came into being in December 1954 with Silber as president.

It wasn't long before the amicus curiae decided to become a participant. In 1955 Gasman became vice president for promotion for British Industries, which had experienced tremendous growth and was, in fact, one of the first public corporations in the audio business.

Meanwhile, just before joining BIC, Gasman assisted in the birth of another enterprise. In 1951 Milton Sleeper had approached him to sound him out about a new magazine: High Fidelity. Gasman was given the promotion job, and he also met with Sleeper and the magazine's first editor, Charles Fowler, to offer views on format and general direction. In 1954 he and Sleeper (who had left HF by then) set up the first permanent audio demonstration room in New York, at Grand Central Station—the site eventually acquired by Acoustic Research.

Throughout the Fifties and into the Sixties, it was widely accepted in the industry and beyond that the single-play manual turntable was naturally superior to the changer and that the latter represented a compromise in quality and a concomitant loss of status for the owner. Gasman and his
Akai receivers.
Spread the word.

The word is Akai quality in receivers.
Stereo receivers from $200 to $900. Spread the word.

AKAI

Akai America, Ltd., 2139 East Del Amo Boulevard, Compton, California 90220

NOVEMBER 1976
Saving the best for last.

The chances are good that when you first bought a stereo system, it was a “package” that included a receiver, 2 speakers, and a record player with cartridge. But how much time was spent selecting the cartridge? Most probably it was just a minor element of the package. Even if it had a famous name, it probably was not a truly first-rank model.

Yet the cartridge is more important than that. It can limit the ability of the entire hi-fi chain to properly reproduce your records. It can affect how many times you will enjoy your favorite records without noise and distortion. And it can determine whether you can play and enjoy the new four-channel CD-4 records.

Consider the advantages of adding an Audio-Technica AT15Sa to your present system. You start with response from 5 to 45,000 Hz. Ruler flat in the audio range for stereo, with extended response that assures excellent CD-4 playback if desired. Tracking is superb at all frequencies and distortion is extremely low. The sound is balanced, transparent, effortless. Stereo separation is outstanding, even at 10kHz and higher where others fall short. Our Dual Magnet design* assures it.

And the AT15Sa has a genuine nude-mounted Shibata stylus. Which adds a host of advantages. Like longer record life. Better performance from many older, worn records. Exact tracing of high frequencies, especially at crowded inner grooves. And tracking capability—at a reasonable 1-2 grams—that outperforms and outlasts elliptical styli trying to track at less than a gram.

We’re so certain that an AT15Sa will improve your present system that we’d like to challenge you. Take several of your favorite records to an Audio-Technica dealer. Have him compare the sound of your present cartridge (or any other) with the AT15Sa. Listen. We think you’ll be impressed. And convinced.


The AT15Sa. Very possibly the last phono cartridge you’ll ever need.
The heritage. A half century of continuous research and production of high fidelity transducers. For fifty years, a standard for the reproduction of music in the most demanding professional environments.

The here and now. A new Tannoy produced in the best tradition of proud craftsmanship. The crowning achievement of our British designers and sound engineers.

Ingenuity. At first glance, the Tannoy appears to be a conventional speaker. It is a great deal more. It is a fully integrated loudspeaker system. Sound is reproduced, phase coherent, throughout the total audio range from one transducer matrix. Both the high and low frequency drivers are combined within a single, powerful magnetic structure.

1. High frequencies, produced by a specially formed duraluminum diaphragm, are captured and passed through the many throats of a phase compensator.

2. Sound energy, balanced and phase coherent, its rate of flow and frequency/time relationships meticulously controlled, enters a short, high frequency exponential horn.

3. The curvilinear low frequency cone extends from the exponential horn, providing an unbroken audio spectrum as well as widely dispersed high frequencies.

4. The low frequency cone is a rigid piston, operating from the lowest bass range to one thousand Hertz. At this point, there is a smooth crossover into the range of the high frequency horn which extends beyond audibility.

The unique combination of the extended low frequency direct radiator, its highly damped cone, the precisely tailored crossover network and the extraordinary phase compensated, wide range horn-loaded high frequency unit, achieves exceptionally linear response—throughout the entire audio spectrum. The system is housed in a rigid, non resonant enclosure that reveals the hand of the master cabinetmaker.

Performance. The Tannoy is highly efficient and remarkably accurate. Music is reproduced with utter naturalness and clarity. Stereo Review listened too: "... smooth and musical... as easy to listen to as to look at..."

Since Tannoy will only be found in the displays of a limited number of selected dealers of established reputation, won't you write us directly? We'll forward a list of those appointed high fidelity dealers who will be pleased to provide a listening demonstration. We'll include a luxurious, full color brochure with the technical details of each model in the Tannoy line; each an unparalleled loudspeaker system.

Tannoy of London, 55 Ames Court, Plainview, N.Y. 11803
Introducing an evolutionary idea.
The New Empire 698 Turntable

Great ideas never change radically. Instead, they are constantly being refined to become more relevant with time. So it has been with Empire turntables. Our latest model, 698, is no exception. Basically, it's still the uncomplicated, belt-driven turntable we've been making for 15 years. A classic.

What we're introducing is improved performance. The lower mass tone arm, electronic cueing, quieting circuitry and automatic arm lift are all very new.

The rest is history.

The Tonearm
The new 698 arm moves effortlessly on 32 jeweled, sapphire bearings. Vertical and horizontal bearing friction is a mere 0.001 gram, 4 times less than it would be on conventional steel bearings. It is impervious to drag. Only the calibrated anti-skating and tracking force you select control its movement.

The new aluminum tubular arm, dramatically reduced in mass, responds instantly to the slightest variation of a record's movement. Even the abrupt changes of a warped disc are quickly absorbed.

The Motor
A self-cooling, hysteresis synchronous motor drives the platter with enough torque to reach full speed in one third of a revolution. It contributes to the almost immeasurable 0.04% average wow and flutter value in our specifications. More important, it's built to last.

The Drive Belt
Every turntable is approved only when zero error is achieved in its speed accuracy. To prevent any variations of speed we grind each belt to within one ten thousandth of an inch thickness.

The Platter
Every two piece, 7 lb., 3 inch thick, die cast aluminum platter is dynamically balanced. Once in motion, it acts as a massive flywheel to assure specified wow and flutter value even with the voltage varied from 105 to 127 volts AC.

The Main Bearing
The stainless steel shaft extending from the platter is aged, by alternate exposures to extreme high and low temperatures preventing it from ever warping. The tip is then precision ground and polished before lapping it into two oilite, self-lubricating bearings, reducing friction and reducing rumble to one of the lowest figures ever measured in a professional turntable; -68 dB CBS ARLL.

The Controls
Electronic cueing has been added to the 698 to raise and lower the tone arm at your slightest touch. Simple plug-in integrated circuitry raises the tone arm automatically when power is turned off.

A see-through anti-skating adjustment provides the necessary force for the horizontal plane. It is micrometer calibrated to eliminate channel imbalance and unnecessary record wear.

Stylus force is dialed using a see-through calibrated clock mainspring more accurate than any commercially available stylus pressure gauge.

A new silicon photocell sensor has been added to automatically lift the arm at the end of a record.

New quieting circuitry has also been added. Now, even with the amplifier volume turned up, you can switch the 698 on or off without a "pop" sound to blow out your woofers.

At Empire we make only one model turntable, the 698. With proper maintenance and care the chances are very good it will be the only one you'll ever need.

The Empire 698 Turntable
Suggested retail price $400.00

For more information write: EMPIRE SCIENTIFIC CORP.
Garden City, New York, 11530.

CIRCLE 10 ON READER-SERVICE CARD
Marantz 510M—
for Muscle

The Equipment: Marantz Model 510M, a stereo power amplifier, in metal case. Dimensions: 15% by 61/2 inches (front panel); 14 inches deep, plus clearance for controls and connections. Price: $1,000, optional WC-2 wood case, $39.95. Warranty: "limited," three years parts and labor. Manufacturer: Marantz Co., Inc., P.O. Box 577, Chatsworth, Calif. 91311.

Comment: Conventional wisdom has it that amplifiers rated at 23 dBW (200 watts) per channel and above—the so-called superamps—are a special breed unto themselves, to be used in creating very high sound pressure levels with inefficient speakers. The Marantz 510 series, rated at 24.1 dBW (256 watts) per channel, offers a convincing argument that this view is far too restricted and that, if the price is within reach, a high-powered amp is the amp for all seasons. The Model 510M—the unit we tested—is equipped with front-panel meters (with a sensitivity switch for 0, +10, and +20 dB) to monitor power output; the 510, which costs $200 less, is identical except for the meters.

Lab tests performed by the CBS Technology Center turned up some unusually impressive numbers and show the rating of this amplifier to be very conservative. Total harmonic distortion is rated at 0.05%, a recent upgrading from Marantz's original 0.1% spec; the worst the lab could squeeze out while remaining within rated power was just under 0.02%—and that was at 20 kHz. Intermodulation (rated at 0.1%) remains far lower to well beyond rated power for 4-, 8-, and 16-ohm loads and shows virtually no tendency to rise at low power levels. THD is essentially independent of power output. Depending on the actual impedance of the loudspeakers being used, the 510M has 1 to 2 dB of headroom above rated power before clipping is evident.

The power bandwidth spec (20 Hz to 20 kHz, checked at the lab with the original 0.1% THD spec) is met easily and with a little to spare through most of the band; the upper -3 dB point is at 44 kHz. Frequency response at 0 dBW (1 watt) output is ruler flat to beyond 10 kHz, reaching -5/2 dB at 20 kHz—truly a negligible deviation from Marantz's ±0.1 dB spec. A driving signal of 2.2 volts into 25,000 ohms (this impedance is not affected by the setting of the input gain controls) is required to drive the 510M to full rated power. Signal-to-noise ratio (111/2 dB with respect to full output level—which translates to -871/2 dBW of noise) is excellent; electronic amplifier noise should be below audibility even in the quietest listening room with any combination of program material (including none), level setting, and speaker efficiency.

Damping factor for an 8-ohm load is in excess of 200 and therefore in a neighborhood where increasing it further would have negligible effect.

But few of us buy fine power amps to play with in the lab—listening is what it's really all about, and there the Marantz 510M shines. We set up an A/B test with this and another amplifier that we thought—and still think—to be pretty good. It is hardly exaggerating to say that the reference amplifier sounds like a high quality stereo amp, and the Marantz sounds like music. The 510 simply puts less between listener and performer. The bass end is well controlled (probably because of the high damping factor), and the sound of a large chorus (always difficult to reproduce) is handled with complete ease.

The designers of this amp have spared few pains to

REPORT POLICY

Equipment reports are based on laboratory measurements and controlled listening tests. Unless otherwise noted, test data and measurements are obtained by CBS Technology Center, Stamford, Connecticut, a division of Columbia Broadcasting System, Inc., one of the nation's leading research organizations. The choice of equipment to be tested rests with the editors of HIGH FIDELITY. Manufacturers are not permitted to receive reports in advance of publication, and no report, or portion thereof, may be reproduced for any purpose or in any form without written permission of the publisher. All reports should be construed as applying to the specific samples tested; neither HIGH FIDELITY nor CBS Technology Center assumes responsibility for product performance or quality.
Marantz 510M Amplifier Additional Data

Power output at clipping (both channels driven)
L ch 25 dBW (300 watts) for 0.055% THD
R ch 25 dBW (300 watts) for 0.050% THD

Damping factor >200

Input characteristics (for rated output at full gain)
Sensitivity 2.2 V
Noise -87 ½ dBW
S/N ratio 111.5 dB

Frequency response + 0, -½ dB, below 10 Hz to 20 kHz
+ 0, -3 dB, below 10 Hz to 100 kHz

Output in DBW

INTERMODULATION CURVES
4-ohm load: <0.001%, 20 Hz to 20 kHz
16-ohm load: <0.003%, to 24 dBW (348 watts)

Square-wave response

About the dBW...

As we announced in the June issue, we currently are expressing output power and noise in terms of dBW—meaning power in dB with a reference (0 dBW) of 1 watt. We repeat herewith the conversion table so that you can use the advantages of dBW in comparing current products with those we have reported on in the past. You can, of course, use the figures in watts that accompany the new dBW figures for these comparisons, but then you lose the ability to compare noise levels for outputs other than rated power and the ability to figure easily the levels to which specific amplifiers will drive specific speakers—a matter explained at some length in the June issue.

If you do not have the June issue and would like a reprint of the full exposition, send $2.50 (U.S.) to dBW, c/o High Fidelity Magazine, The Publishing House, Great Barrington, Mass. 01230.

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Shure's First Quadradisc Pickup

The Equipment: Shure Model M-24H, a magnetic pickup cartridge for playing stereo, matrixed-quadrifonic, or Quadradisc records, with hyperbolic tip. Price: $74.95. Warranty: "limited," one year parts and labor, stylus wear and damage subsequent to manufacture excluded. Manufacturer: Shure Bros., Inc., 222 Hartrey Ave., Evanston, Ill. 60204.

Comment: Shure has been anything but precipitate about coming out with a cartridge for playing Quadradiscs. Now that it finally has done so it takes pains to point out that its entry is engineered not only to cope with the high-frequency CD-4 carrier range, but to be a topflight stereo or matrixed-quad pickup as well. At the risk of offending the worthy folks at Shure, we can’t help commenting that we seem to have heard a similar claim, from others, before.

Shure specifies that for stereo (or matrixed-quad) use, the resistive loading may be anywhere from 20,000 to 100,000 ohms (47,000 is standard for stereo), with the higher figure preferred for playing Quadradiscs (it matches standard loading in CD-4 demodulators). Shunt capacitances from 100 to 250 picofarads (including the total capacitance tone arm, leads, and phono input) may be used for stereo; the lower figure is preferred for CD-4. CBS Technology Center tested the M-24H with the values suggested for CD-4.

Judging both from the response curves and the square-wave photo, Shure uses less damping of the high-frequency resonance than it might have in a stereo-only model. (We have encountered pickups from other manufacturers of which this is true, with similar results in these respects.) Shure’s literature shows a peak of about 5 dB (the lab measured it at close to 6 dB in both channels) in the vicinity of 30 kHz; the high-frequency ringing—well beyond the audible range, and reflecting the 30-kHz resonance—also suggests a minimum-damping design.

The lab found that the M-24H could track its torture-test groove at 0.9 gram of vertical tracking force, though Shure’s recommended VTF of 1¼ grams was used for the remainder of the CBS tests and for our listening tests. The output is well balanced between channels and high enough to be squarely in the ballpark even among stereo-only cartridges: 0.92 millivolts per centimeter per second in the left channel and 0.82 millivolts in the right. Harmonic distortion figures are better than many we’ve seen even among top stereo cartridges; intermodulation is extremely low for lateral modulation, approximately average for vertical modulation.

Low-frequency resonance (in the SME arm) is squarely in the “ideal” range at 9.2 Hz. The vertical tracking angle measures 20 degrees. Under the microscope the effective tip radii of the hyperbolic tip (note that it isn’t a Shibata) appear to be 7 by 16 micrometers (0.3 by 0.7 mils). The lab comments that the diamond’s orientation appears very good, its geometry good, its polish acceptable.

Evaluation of a pickup for CD-4 purposes is somewhat tricky because of gross variations from one demodulator to another and, even more, from one Quadradisc to another. We could not discern that the M-24H achieved any significant advance over other CD-4 pickups we’ve used with our test setup; nor could we find any fault with the Quadradisc reproduction that was not attributable, rather, to the discs or the demodulator. We did note, however, that when we switched from demodulation to the stereo mode the increase in brightness in the sound (something that should be expected in any case because of the high-frequency filtering inherent in the CD-4 system) was somewhat more pronounced than we have noted with some CD-4 pickups.

It is, in fact, slightly brighter than average among top stereo pickups. In A/B comparisons with the Shure V-15 Type III (the top Shure model, and the only one above the M-24H in its line) we notice a little more bite and a little more clarity in some passages with the newer model. In other passages the extra bite translates to a slight hardness of tone not present in the sound from the V-15. Close-miked voices in particular sound more natural and unforged with the V-15.

In this comparison it should be obvious that we do not consider the M-24H to be truly the equal of the V-15 or other top stereo-only pickups. But it comes close enough...
that, considering its ability to play Quadradiscs as well, plus its lower price, it should find many admirers.

CIRCLE 135 ON READER-SERVICE CARD

Shure M-24H Additional Data

| Maximum tracking levels (1.25 grams VTF; re RIAA 0 VU) |
|-----------------|-----------------|-----------------|
| at 300 Hz       | +12 dB          | +9 dB           |
| at 1 kHz        | +9 dB           | -5 dB           |
| 10 to 20 kHz    | -5 dB           |                 |


Comment: The Onkyo TX-2500 shares with the TX-4500, the other member of Onkyo's receiver line, a new tuning system known as Servo-Lock. Like earlier automatic frequency-control circuits, the system is designed to compensate for tuner drift and its concomitant excess of noise and distortion, but it is far more sophisticated and seems free of the ills (increased distortion and inability to lock onto weak stations, to name two) associated with earlier designs. In Servo-Lock, the intermediate frequency signal is compared with a quartz-crystal reference oscillator set to 10.7 MHz. If the station is not at that frequency in the IF signal, the local oscillator is automatically adjusted until things are back in line. The tuning knob is touch-sensitive (with an adjustable threshold) and cancels the system operation while the receiver is actually being tuned. Once the station is within the tuning range (a fact that is announced by a locked indicator that lights on the front panel), the knob can be released. The Servo-Lock then tunes the receiver to the station and lights the tuned indicator. Servo-Lock is defeatable at the user's option via a front-panel pushbutton that simultaneously defeats muting. The receiver is then tuned using conventional signal-strength and center-channel meters, which are also provided.

In the tests performed by CBS labs, the tuner section proved itself more than competent but not outstanding. The 50-dB stereo quieting point—which we consider a cardinal specification for today's tuners—requires 37 dBf (39 microvolts). The traditional 30-dB quieting point is at 8.8 dBf (1.5 microvolts) in mono, and the Onkyo's stereo switching threshold—where the unit switches from stereo to mono—is at 17 dBf (4.0 microvolts) for 32½ dB of quieting. There is no means for blending the channels partially in stereo to cancel hiss, but because of the excellent signal-to-noise ratios at relatively low RF inputs, this control is scarcely missed. Blending, of course, does not cancel distortion. IM and THD are low in any case, however, the latter even at the higher audio frequencies that are often troublesome for tuners.

Frequency response is good in both mono and stereo, and stereo separation is excellent. The tuner actually outperforms its muting circuit, which from time to time silences quite listenable stations and has a tendency to switch somewhat erratically on weak signals as well. In general, though, it is difficult to fault the tuner section on its performance, and the convenience provided by the Servo-Lock (which, in our use test, held a station for twenty-four hours without perceptible drift) provides an attractive bonus.

The amplifier section of this receiver, rated at 14½ dBW (27 watts) into 8 ohms, 40 Hz to 20 kHz at 0.5% distortion, meets its specs handily and with a little to spare. Distortion tends to creep up a little at low power levels, but the worst case THD between full power and 1/100 power (-5½ dBW) is less than 0.1%. Driven to clipping, which it might be with inefficient speakers in a large or absorbent room, the unit recovers virtually instantly and without after-effects. For both 4- and 8-ohm loads, IM distortion remains below 0.2% up to full output and somewhat beyond.

The manufacturer's claims for square-wave performance at 50 Hz and extended low-frequency response could not be verified, as they apply only to the power amp, which is accessible only via the preamp. Because the frequency...
response and square-wave reproduction of the two in combination indicate that the preamp lacks these capabilities, some question is raised about the claims. On the other hand, the over-all frequency response is within ½ dB of perfect flatness throughout the audio band, and, except for a slight inability to keep the loudspeakers under control at the lowest frequencies, the sound is just fine.

The overload point of the phono section is a generous 170 millivolts, and sufficient gain is provided so that only the most insensitive cartridges will pose problems. RIAA equalization is accurate to within ½ dB, 20 Hz to 20 kHz. Signal-to-noise ratios are good through all inputs. Control flexibility of the TX-2500 is about average: The detented tone controls are broad in their action and have fixed turnover points; the high-cut filter has a gentle slope, but with a turnover point that allows it to be moderately effective nonetheless. In addition to the two sets of tape monitor connections, there is provision for a Dolby noise-reduction unit, to be used in conjunction with the FM section. Provision also is made for connecting two sets of speakers, with main and remote connected in series rather than parallel when both are driven. In our experience, this type of connection has tended to degrade frequency response and damping unless both main and remote speakers are identical.

On the whole, we would call this a receiver with yeoman-

About the dBf and Related Matters...

This term should be familiar to avid readers of tuner specifications. It was introduced in the current standards published jointly by the Institute of High Fidelity and the Institute of Electrical and Electronics Engineers, and it represents decibels referred to one femtowatt (10^-15 watt or one-quadrillionth watt) as more useful units than microvolts for the specification of radio-frequency input—and hence tuner sensitivity. As a result, most tuner sensitivity specs issued recently by the major manufacturers are in dBf, usually with the familiar microvolt equivalent in parentheses. Now (since September) we are doing likewise. Traditionalists need not despair; not only will we continue to retain the microvolts equivalents, but our new sensitivity and quieting graph format is calibrated in both units and can therefore be used as a rough conversion table.

At the same time we are adopting another worthy element of the IHF/IEEE standards: the distinction between noise quieting and noise and distortion quieting. We have used only the latter in the past, since this information was (and is) the basis of the traditional 30 dB sensitivity ratings. The new standard adds a second (and, in our opinion, more useful) specification for the point at which noise alone is suppressed by 50 dB. So the 30 dB sensitivity is shown on the curves for noise plus distortion, the 50 dB sensitivity on those for noise only. And by comparing the two curves one can see how input signal strength affects both noise and distortion when each is measured separately.

To avoid a confusing clutter of curves, we now are showing mono data only up to the mono 50 dB point or the stereo threshold (depending on the relationship between these two in the tuner under test). Since stereo is the way of FM life today, most listeners will be concerned primarily with the stereo figures until signal strength drops too low for good stereo reception—at which point the mono data take over. If you want to know the mono noise and distortion performance of a given tuner for strong stations, you need only look at the S/N-ratio and harmonic-distortion figures shown under “Additional Data.” These figures are measured at 65 dBf (close to 1,000 microvolts) and can be used to judge where the mono noise-plus-distortion and noise-only curves would fall if they were carried this high.

Note that the new presentation not only makes possible a more detailed picture of how the tuner will respond to various input signal strengths, but gives a more rational basis on which to express these strengths as well. If one tuner has a 50 dB mono sensitivity of 15 dBf (about 3 microvolts) and another measures 20 dBf (5½ microvolts), the first is 5 dB more sensitive. It makes no sense to talk of it as “about 2½ microvolts more sensitive.” In this regard the dBf is comparable to the dBW, which allows us to say that one amplifier is so many dB more powerful than another—a far more useful concept than speaking of it as so many watts more powerful.
like performance and an attractive personality—and it looks good too. There are areas in which it falls slightly from grace, but none are more than faintly annoying. More

**Onkyo TX-2500 Receiver Additional Data**

**Tuner Section**

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Capture ratio</td>
<td>1 1/4 dB</td>
</tr>
<tr>
<td>Alternate-channel selectivity</td>
<td>52 dB</td>
</tr>
<tr>
<td>S/N ratio (mono)</td>
<td>68 dB</td>
</tr>
<tr>
<td>THD Mono L ch R ch</td>
<td>0.32% 0.23% 0.35% 1.18% 0.22% 0.21% 0.20% 0.59% 0.52%</td>
</tr>
<tr>
<td>IM distortion</td>
<td>0.12%</td>
</tr>
<tr>
<td>19-kHz pilot</td>
<td>-66 dB</td>
</tr>
<tr>
<td>38-kHz subcarrier</td>
<td>-68 dB</td>
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</tbody>
</table>

**Amplifier Section**

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Power output at clipping (both channels driven)</td>
<td></td>
</tr>
<tr>
<td>L ch (30 W @ 0.06% THD)</td>
<td>15 dBW (30.0 watts)</td>
</tr>
<tr>
<td>R ch (0.5% THD)</td>
<td>15 dBW (30.0 watts)</td>
</tr>
<tr>
<td>Input characteristics (for rated output at full gain)</td>
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</tr>
<tr>
<td>Sensitivity S/N ratio</td>
<td>2.4 mV -25 69 dB</td>
</tr>
<tr>
<td>Phono</td>
<td>142 mV -67 dBW 81 1/2 dB</td>
</tr>
<tr>
<td>Phono overload (clipping point)</td>
<td>170 mV</td>
</tr>
<tr>
<td>Frequency response ±0 dB, 0 Hz to 40 kHz</td>
<td></td>
</tr>
<tr>
<td>+0, -2 dB, 10 Hz to 100 kHz</td>
<td></td>
</tr>
<tr>
<td>Damping factor (at 1 kHz)</td>
<td>&gt;200</td>
</tr>
</tbody>
</table>

**Harmonic Distortion Curves**

- 141/2 DBW (27 WATTS) OUTPUT
  - Left channel: <0.67%, 20 Hz to 20 kHz
  - Right channel: <0.73%, 20 Hz to 20 kHz
- 10 DBW (0.5 WATTS) OUTPUT
  - Left channel: <0.94%, 20 Hz to 20 kHz
  - Right channel: <0.96%, 20 Hz to 20 kHz

**Intermodulation Curves**

- 8-ohm load: <0.18% to 15 dBW (33.2 watts)
- 4-ohm load: <0.12% to 15 dBW (56.7 watts)
- 8-ohm load: <0.02% to 14 dBW (25.2 watts)
Stanton's All-in-One Record-Playing Module

The Equipment: Stanton Model 8004-II Gyropoise two-speed (33 and 45) single-play manual turntable assembly, with 681EEE pickup cartridge, wood base, and dust cover. Dimensions: 14½ by 13 inches (base); 7 inches high with cover closed, approx. 16 inches with cover open. Price: $199.95; with Stanton 780/4DQ Quadradisc-compatible pickup, as Model 8004-IV, $224.95. Warranty: "limited," one year parts and labor, shipping paid one way. Manufacturer: Stanton Magnetics, Inc., Terminal Dr., Plainview, N.Y. 11803.

Comment: This is what some manufacturers might call a record-playing "module" since it contains everything you need to add disc-playing to a receiver or integrated amp with a magnetic phono input. But while most companies' modules include somebody else's (usually so-so) cartridge, this one is built around Stanton's own 681EEE—which is anything but a so-so job, as readers of our report on it (HF, July 1975) will remember.

Not only is it superb, but the present turntable is engineered specifically for it (or for a similar Quadradisc model, for $25 more if you buy the 8004-IV), the arm will accommodate only the plug-in Stanton pickups, and no other brand need apply. This may offend some componentophiles who feel constricted by having their choices made for them. We would plead that 1) if you must be limited it would be hard indeed to find a better pickup than the 681EEE to be limited to and 2) this allows Stanton to tailor the arm and other design factors to the requirements of the pickup for optimum results.

The arm is a thin tubular affair with a sliding weight to adjust vertical tracking force (which you need do only in initial setup or if you change to the CD-4 pickup, of course) and a magnetic antiskating system. One scale on the latter is for elliptical styli (like that in the 681) or CD-4 pickups (like the alternative 780/4DQ); a second scale is for conical tips, should you go for one in a replacement stylus in the future (though we can't imagine why you would). Calibration of both controls is in half-gram steps to 4 grams. The lab measured the whole-gram VTF settings as a negligible 0.1 gram below indicated values. Antiskating values for both scales are well within accepted values. Both Stanton pickups come with the "Longhair" record-cleaning brush; the manual gives VTF (and, by implication, antiskating) recommendations both with and without the brush.

The arm's Unipoise (one-point suspension) pivot design provides unmeasurably low friction in both horizontal and

Square-wave response to the point, the TX-2500 has very little in the way of frills or fat. All of its parts work in concert, with no large-scale overdesign or underdesign to cause waste. Driving at least moderately efficient speakers, this receiver sounds a good deal better than the data suggest—and better than one has a right to expect for $300. With all of that, it can (almost) tune to your favorite station by itself. It's well worth checking out.

CIRCLE 140 ON READER-SERVICE CARD

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vertical motion. Resonance of the arm and pickup combination is at 10.5 Hz (and hence optimally placed between audio frequencies and those of typical warps) and shows a moderate rise of 5 dB. On the test bench, CBS noted no side drift to the viscous-damped cueing device, though in home testing we found that the antiskating tended to back up the arm by a few grooves each time we cued.

The full-size aluminum platter, weighing 2 1/4 pounds, rides on what might be called magnetic bearings: A magnet is built in around the spindle hole, while another mounted below the platter presents its like pole to the upper magnet and hence repels it, carrying the full weight of platter, mat, disc, and the tone arm’s VTF. Drive, from a synchronous 24-pole motor (note that there is no variation in rotation speed with alterations in line voltage), is via a belt. All this adds up to extremely low rumble: -58 1/2 dB by the CBS ARLL measurement method. Wow and flutter, too, are excellent; the lab measured 0.07% as the average peak value, 0.12% as the instantaneous maximum. There is no speed vernier control. CBS measures rotation speed as 0.4% slow—hardly a serious “inaccuracy”—at 33 rpm, only 0.07% slow at 45.

All in all, the 8004 is an excellent assembly, and since its $200 price includes a superb cartridge it is an exceptional buy as well. Stanton says it may come out with a variant that will accept any standard cartridge (and of course some features—like the antiskating and VTF adjustments—already seem to allow for this possibility), but unless you have overriding reasons for choosing a model other than the 681 (or the 780) you owe it to yourself to consider the present 8004.

CIRCLE 136 ON READER-SERVICE CARD

Transparent Satin from Superex


Comment: Moving-coil cartridges, which have a legendary reputation among audio cognoscenti, are likewise known for their general fussiness, low output voltage (requiring the use of a transformer or pre-preamplifier), relatively high tracking-force requirements, and, perhaps worst of all, styli that are not replaceable by the user. Recent developments in permanent magnet technology have offered an avenue of attack on the low output. Satin, one of the larger cartridge manufacturers in Japan, has been among the first companies to accept the challenge—adding in the meantime some refinements that just about solve the remaining problems. Its M-117 series, as the new models are designated, contains an “E” version (elliptical stylus) and an “X” version (Shibata stylus). We chose to test the latter because of its potentially wider range of application.

Low output impedance is one of the inherent characteristics of moving-coil designs. Accordingly, the CBS Technology Center performed its tests on the M-117X using the recommended load of 100 ohms. In our listening tests we verified that conventional loads of 47,000 and 100,000 ohms do not upset things markedly, except for causing a slight loss of smoothness in the upper treble and raising the output 3 dB or so. An optional network (the manufacturer calls it a damping adapter) that provides switchable damping is offered for an extra $30. One potential advantage of its low output impedance is that cable capacitance for CD-4 use should be less critical; another is that it may make pickup/preamp matching less critical than it is with some combinations.

The minimum tracking force at which the M-117X can negotiate the CBS audio slalom (sweep signals on two test records) is 0.6 gram. In a test for maximum tracking level (performed with 1.0 gram VTF, as were the listening tests) the cartridge does very well, as the “Additional Data” chart shows. Sensitivity is right up there with moving-magnet designs, and with an unusually good match between channels.

Between 20 Hz and 8 kHz, neither channel departs from perfectly flat response by more than 1 dB. From there up to 20 kHz there is evidence of a fairly broad peak, some 4 dB in amplitude centered at 16 kHz. The peak is somewhat equivocal, being apparent on the CBS test record used for the baseband but showing as a dip on the JVC record used for the carrier region. While small anomalies of this kind are common in the tests of other pickups, in no other has the variance been as large as with the Satin. The slight ringing seen in the square wave is at about 38 kHz and seems unrelated to any peak in the audible range. And if audibility is to be paramount, suffice it to say that the high end is barely overbright and not at all unpleasantly so.

Separation is good but not outstanding. High in the carrier range, separation decreases toward as little as 6 1/2 dB, but this is no impediment to CD-4 reproduction, at least not with a demodulator of good quality. Harmonic distortion is about average among today’s phono cartridges, but IM is extraordinarily low. The vertical angle is 15 degrees, very close to the nominal 15-degree standard, and the low-frequency resonance (tested in an SME arm) is, at 9.8 Hz, close to optimum. The lab found the alignment and geometry of the stylus tip excellent and the polish of the diamond superb.

The sound of the Satin M-117X is not satin at all, but rather gossamer. Its extreme transparency—possibly a result of the low IM—allows a gratifying intimacy with the music, both in CD-4 and conventional stereo. The unit has an uncanny ability to extract from a record groove details that it may make pickup/preamp matching less critical than it is with some combinations.

The minimum tracking force at which the M-117X can negotiate the CBS audio slalom (sweep signals on two test records) is 0.6 gram. In a test for maximum tracking level (performed with 1.0 gram VTF, as were the listening tests) the cartridge does very well, as the “Additional Data” chart
(including minor defects) that one would hardly have believed were there. There is the hint of brightness alluded to earlier, but this is curable with the gentlest touch of the treble control, even without the damping adapter. Transients and nuances of timbre are just scrumptious. This cartridge retains traces of the touchy thoroughbred temperament associated with its heritage. It really prefers working into its damping adapter (which adds to the already high price); its high magnetic flux argues for use only with nonferrous turntable platters; and it insists on absolute cleanliness of the records it plays. But, for us at least, these are the eccentricities of a superlative performer.

**Technics’ Latest Metering: Have It Your Way**

**The Equipment:** Technics RS-630US, a Dolby stereo cassette deck, in metal case with wood and simulated-wood finish. Dimensions: 17¼ by 5½ inches (front); 11¾ inches deep plus clearance for controls and connections. Price: $249.95. Warranty: "limited," one year parts and labor. Manufacturer: Matsushita Electric, Japan; U.S. distributor: Panasonic Division of Matsushita Electric Corp. of America, 1 Panasonic Way, Secaucus, N.J. 07094.

**Comment:** This is a cassette deck with an exceedingly pleasant personality—and an unassuming price. It is neither so "technological" as to be intimidating to the neophyte nor so simplicity-oriented (in most respects) as to be irksome to the hip amateur. Its unusual metering (which may take some getting used to, even for the hip) is good for both groups and is, in fact, the single most fascinating feature the RS-630 has to offer.
It has two scales used in conjunction with the PEAK CHECK switch, which has positions marked IN and OUT. In the OUT mode you read the lower meter scale, and the needle behavior is more or less that of conventional (averaging) VU meters. Switch the PEAK CHECK to IN and the upper scale comes into use, while the meter responds much more quickly to transients, delivering so-called "peak" ("instantaneous" would be a better word) values. Since this quicker response means that program "spikes" too brief to register on an averaging meter now are making their presence—and their relatively high levels—known, the meter also becomes 3 dB less sensitive. If you are monitoring a steady tone at 0 VU, for example, it will appear at 0 VU on whichever scale is appropriate for the switch position; but the 0 on the upper scale is 3 dB farther to the left than it is on the lower one.

This means that the calibration for the peak mode starts higher (at -17 VU as opposed to -20 VU for the averaging mode) and ends higher (+ 6 vs. + 3 VU) to accommodate the higher maximum values it can be expected to read with typical music. But if you examine the scales closely, you will find that the averaging scale turns red (suggesting overload) at the 0-VU point, while the instantaneous scale is black until it reaches + 6 VU. Technics is, in effect, allowing some 6 dB more headroom for the averaging mode (to allow for the program spikes the meter won't respond to adequately) than it leaves for the quicker-acting instantaneous mode—a difference in approach that underlines how much more accurately an instantaneous meter quantifies musical signals. In either mode the recordist should set levels so that the meter swings only occasionally and only a little way into the red; but with the averaging mode you have no way of knowing whether the built-in headroom is more than enough for the spikes in the music at hand, in which case you're wasting some of the tape's dynamic range.

Technics evidently has chosen its 0-VU calibration point at about 4 dB below the DIN reference 0 VU though, as the "Additional Data" table shows, the lab measurement for the left channel in the averaging mode is not quite in line with the other meter figures. We also find that the interchannel tracking in the recording-level control is not quite as close as it is on some machines. Together these two considerations make channel-balancing a hair more confusing in our sample than we might have liked. The magnitude of the "inaccuracies" is not great enough, however, to be called a serious fault—only a minor rough edge on an otherwise very smooth piece of hardware.

The recording level controls themselves, to take an example of such smoothness, are friction-clutched elements of a single knob cluster, simplifying level adjustment once the balance has been set. The output controls work the same way—and, incidentally, don't affect meter readings, a design we prefer to the obvious alternative since we're usually more interested in the levels on the tape than in those being fed into the playback amplifier. The cassette well has a mirror system that somewhat improves visibility of the cassette within it by comparison with some other front-loaders (though we continue to find this type of design wanting in visibility, simplicity, and ease of maintenance), and has a transparent dust cover that can be slid in front of the meters and left there, for ready access to the well, without obscuring the meters.

The transport controls are pleasant in "feel," ingeniously differentiated in color and size, and nicely interlocked. You can go directly from PLAY to either fast-wind mode or from one fast-wind mode to the other, but not back to PLAY without first pressing STOP: STOP and EJECT

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### Technics RS-630US Additional Data

<table>
<thead>
<tr>
<th>Specification</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Speed accuracy</td>
<td>Speed accuracy</td>
</tr>
<tr>
<td>0.66% fast at 105 VAC</td>
<td>0.90% fast at 120 VAC</td>
</tr>
<tr>
<td>1.0% fast at 127 VAC</td>
<td>0.90% fast at 120 VAC</td>
</tr>
<tr>
<td>Wow and flutter</td>
<td>Wow and flutter</td>
</tr>
<tr>
<td>playback: 0.08%</td>
<td>playback: 0.08%</td>
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<tr>
<td>record/play: 0.14%</td>
<td>record/play: 0.14%</td>
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<tr>
<td>Rewind time (C-60 cassette)</td>
<td>Rewind time (C-60 cassette)</td>
</tr>
<tr>
<td>85 sec.</td>
<td>85 sec.</td>
</tr>
<tr>
<td>Fast-forward time (same cassette)</td>
<td>Fast-forward time (same cassette)</td>
</tr>
<tr>
<td>83 sec.</td>
<td>83 sec.</td>
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<td>S/N ratio, CBS weighted (re 0 VU, Dolby off)</td>
<td>S/N ratio, CBS weighted (re 0 VU, Dolby off)</td>
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<tr>
<td>playback: L ch: 56 dB</td>
<td>playback: L ch: 55 dB</td>
</tr>
<tr>
<td>record/play: L ch: 53 dB</td>
<td>record/play: L ch: 55 dB</td>
</tr>
<tr>
<td>R ch: 56 dB</td>
<td>R ch: 55 dB</td>
</tr>
<tr>
<td>S/N ratio, unweighted (re 0 VU, Dolby off)</td>
<td>S/N ratio, unweighted (re 0 VU, Dolby off)</td>
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<tr>
<td>playback: L ch: 53 dB</td>
<td>playback: L ch: 55 dB</td>
</tr>
<tr>
<td>record/play: L ch: 53 dB</td>
<td>record/play: L ch: 55 dB</td>
</tr>
<tr>
<td>R ch: 54 dB</td>
<td>R ch: 54 dB</td>
</tr>
<tr>
<td>Erasure (333 Hz at normal level)</td>
<td>Erasure (333 Hz at normal level)</td>
</tr>
<tr>
<td>72 dB</td>
<td>72 dB</td>
</tr>
<tr>
<td>Crosstalk (at 333 Hz)</td>
<td>Crosstalk (at 333 Hz)</td>
</tr>
<tr>
<td>record left, play right</td>
<td>record left, play right</td>
</tr>
<tr>
<td>32 dB</td>
<td>32 dB</td>
</tr>
<tr>
<td>record right, play left</td>
<td>record right, play left</td>
</tr>
<tr>
<td>33 1/2 dB</td>
<td>33 1/2 dB</td>
</tr>
<tr>
<td>Sensitivity (re DIN 0 VU)</td>
<td>Sensitivity (re DIN 0 VU)</td>
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<td>line input: L ch: 105 mV</td>
<td>line input: L ch: 105 mV</td>
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<tr>
<td>R ch: 110 mV</td>
<td>R ch: 110 mV</td>
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<tr>
<td>mike input: L ch: 0.38 mV</td>
<td>mike input: L ch: 0.38 mV</td>
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<tr>
<td>R ch: 0.42 mV</td>
<td>R ch: 0.42 mV</td>
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<tr>
<td>Meter action (re DIN 0 VU)</td>
<td>Meter action (re DIN 0 VU)</td>
</tr>
<tr>
<td>peak in: L ch: 4 dB high</td>
<td>peak in: L ch: 4 dB high</td>
</tr>
<tr>
<td>R ch: 4 1/2 dB high</td>
<td>R ch: 4 1/2 dB high</td>
</tr>
<tr>
<td>peak out: L ch: 2 1/2 dB high</td>
<td>peak out: L ch: 2 1/2 dB high</td>
</tr>
<tr>
<td>R ch: 4 dB high</td>
<td>R ch: 4 dB high</td>
</tr>
<tr>
<td>Total harmonic distortion (at -10 VU)</td>
<td>Total harmonic distortion (at -10 VU)</td>
</tr>
<tr>
<td>&lt;2.0%</td>
<td>&lt;2.0%</td>
</tr>
<tr>
<td>50 Hz to 5 kHz</td>
<td>50 Hz to 5 kHz</td>
</tr>
<tr>
<td>IM distortion (record/play, -10 VU)</td>
<td>IM distortion (record/play, -10 VU)</td>
</tr>
<tr>
<td>L ch: 9.0%</td>
<td>L ch: 9.0%</td>
</tr>
<tr>
<td>R ch: 8.0%</td>
<td>R ch: 8.0%</td>
</tr>
<tr>
<td>Maximum output (re DIN 0 VU)</td>
<td>Maximum output (re DIN 0 VU)</td>
</tr>
<tr>
<td>L ch: 0.76 V</td>
<td>L ch: 0.76 V</td>
</tr>
<tr>
<td>R ch: 0.80 V</td>
<td>R ch: 0.80 V</td>
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---

**DIN PLAYBACK RESPONSE**

<table>
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<tr>
<th>Frequency (in Hz)</th>
<th>Response (in dB)</th>
</tr>
</thead>
<tbody>
<tr>
<td>10</td>
<td>-20</td>
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<tr>
<td>50</td>
<td>-20</td>
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<tr>
<td>100</td>
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<tr>
<td>200</td>
<td>-20</td>
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<tr>
<td>500</td>
<td>-20</td>
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<tr>
<td>1K</td>
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<td>2K</td>
<td>-20</td>
</tr>
<tr>
<td>5K</td>
<td>-20</td>
</tr>
<tr>
<td>10K</td>
<td>-20</td>
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</table>

**RECORD/PLAYBACK RESPONSE**

<table>
<thead>
<tr>
<th>Frequency (in Hz)</th>
<th>Response (in dB)</th>
</tr>
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<tr>
<td>2K</td>
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</tr>
<tr>
<td>5K</td>
<td>-20</td>
</tr>
<tr>
<td>10K</td>
<td>-20</td>
</tr>
</tbody>
</table>

---

**CHROMIUM DIOXIDE TAPE, DOLBY OFF**

- Left channel: +1, -1/2 dB, 31.5 Hz to 10 kHz
- Right channel: +1 1/2, -1/2 dB, 31.5 Hz to 10 kHz

**FERRIC TAPE, DOLBY OFF**

- Left channel: +1, -3 dB, 35 Hz to 15 kHz
- Right channel: +1 1/2, -3 dB, 50 Hz to 15 kHz

**FERRIC TAPE, DOLBY ON**

- Left channel: +1, -3 dB, 35 Hz to 15 kHz
- Right channel: +1 1/2, -3 dB, 50 Hz to 15 kHz

---

**RS-630US (1)**
are separate levers; the RECORD lever can be pushed down without engaging the transport when you want to preset the recording level controls. All this adds up to a scheme that probably allows the swiftest tape handling with the least danger of creating tape loops (and hence snags) of any of the commonly accepted control formats.

There is a single TAPE switch for both bias and equalization. For its CRO, position the CBS Technology Center used BASF cassettes; for the NORMAL position it used TDK SD. Both are excellent matches to the RS-630, as the response curves show. The response itself is good but hardly superlative. Intermodulation is higher than average, though in both of these respects we could not fault the deck on the basis of listening tests. That is to say that the best of the current units measure better but won't necessarily sound better.

Speed accuracy, too, is good. The "worst" figure here is the 1% fast measurement the lab came up with for 127-volt line current. Even if 127 volts represented a common condition (which it does not—power lines usually deliver less than the nominal 120 volts), we could not take serious exception to the 1% figure.

We found the RS-630 to be as easy to use as it is to listen to. That, perhaps, is its key virtue. It will satisfy the dyed-in-the-wool devotee of averaging ("professional," for what that word is worth) meters, but we would hope that such a user would compare the two meter modes. If he does, we think he will learn the merits of peak metering—particularly for cassettes, since they are inherently less forgiving of poor level settings than open-reel tapes are. And even partisans of peak metering (which we obviously are) can learn more about the signals they record by comparing modes than by ignoring the averaging feature. Have it your way.

Ohm's C-2 Bookshelf System Has Bass Galore


Comment: The days when bookshelf loudspeakers flexed their nonexistent muscles and rattled their drivers in search of those last octaves of bass—and all to no avail—are far behind us. But it still comes as a bit of a shock to find a bookshelf model that, while substantially deprived of room-boundary reinforcement, actually can overdo things at the low end. The Ohm C-2 is just such a loudspeaker, and its overrobust bass output fortunately is very easy to tame.

The sound of the C-2 resembles that of a much larger system, in dynamic range as well as bass output. The CBS labs found that it can produce a 300-Hz steady-state tone at 108 dB SPL 1 meter on axis, using an electrical input of 20 dBW (100 watts), without excessive distortion. The onset of distortion is gradual, so that more is present at lower levels than with some other loudspeakers, but this is scarcely audible when music is played. The system does phenomenally well at 80 Hz, reaching 100 dB SPL with distortion quite low.

Pulsed input at 300 Hz gives results entirely consistent with the steady-state behavior. A peak output of 114 1/2 dB is produced from a peak input of 26 1/2 dBW (450 watts), with the test amplifier the first to throw in the towel. The average SPL of nearly 85 dB turned out with a 0-dBW (1-watt) input in the range from 250 to 6,000 Hz is indicative of efficiency somewhat above average.

At its nominal rating point the C-2 is a rarity indeed—a real 8-ohm speaker. Impedance is higher than 8 ohms through most of the mircrange and treble frequencies and approaches 4 ohms only at 20 kHz, a region in which little musical energy is usually present. Two of these speakers in parallel would seem to be a relatively safe load for a typical solid-state amplifier.

In the anechoic chamber, the average omnidirectional frequency response of the Ohm C-2 is within ±5 dB, re 82 1/4 dB SPL, from just below 50 Hz to just beyond 16 kHz, and the region from 1 kHz up is particularly flat. Tested
with one-third-octave bands of pink noise in a normal listening room, the low-frequency output falls away between 30 and 40 Hz—just about where Ohm claims it will. The three-position switch on the back of the unit that controls high-frequency output (marked for 0, -3, -6 dB) is unusually accurate, giving a close approximation of 3 dB per step from about 2 to 18 kHz. High-frequency dispersion will set no records but holds up well to a little more than 30 degrees off axis. (The manufacturer’s setup instructions appear to take this into account in recommending that a pair of speakers used for stereo be angled in slightly and that the listeners be seated well between them.) We found no difficulty in setting up a pair of C-2s. The binding posts accept bared wires or spade lugs easily, and the recommended banana plugs best of all. Located on a shelf and at least two feet from the corners of the room, the speakers produce a sound that is clear and well detailed and—if you want it that way—loud. Transient response is crisp except for a slight tubbiness in the lower bass. For classical music we preferred to turn down the bass just a bit, which works very well since the “excess” bass contour is a good match for the usual capabilities of amplifier tone controls. (Using a rumble filter is a good idea, too.) Stereo imaging is reasonably good: Things seem to be accurately positioned from left to right, though without very much feeling of depth. This occasioned a small loss of realism in classical selections but was hardly noticed with pops.

Surely, all things considered, the design of the Ohm C-2 represents a fine achievement. Its personality is a bit forward, but it is free of vexatious habits. With classical music its performance is adequate with something to spare. And with popular music—wow!

Sennheiser’s Phantom Headset, the HD-400


**Comment:** Sennheiser’s family of open-air headphones—a group of “on-the-ear,” as opposed to “surrounding-the-ear,” units—has for some time been renowned for light weight and outstanding comfort; even when worn for long periods. But frankly we experienced quite a shock when we weighed the HD-400, the new kid in the family, and found that its total avoirdupois amounted to 2½ ounces. We cannot recall ever finding a headset that light with listening quality to compare with this one. Tested with bands of one-third-octave pink noise centered at frequencies from 14 kHz down to 30 Hz, these headphones show a fairly flat frequency response from about 200 Hz upward, with such minor deviations as may exist audible only under close scrutiny. From 200 Hz downward there is a smooth, gentle rolloff. The power-handling capability of the drivers is such, however, that judicious use of the bass control can easily produce an excellent approximation of flat response to about 30 Hz without distortion due to overdriving. Actually, since some of the apparent rolloff stems from the loudness contour of the ear rather than the response of the phones, the amount of bass compensation needed depends in part on the listening level. We found no difficulty in optimizing low-frequency response—the open, spacious effect that results when things are right leaves no doubt. At the high end of the spectrum the sound tends to be
somewhat overbright. We have observed this phenomenon in most of the headphones we have tested and suspect that it results somehow from the proximity of the drivers to the ears. But a slight treble cut smooths things out very nicely. Occasionally there is some evidence of a hard and wiry quality that obtrudes on the upper tones of stringed instruments, but this is elusive, not more than faintly annoying, and very well compensated for by other virtues.

Transient response is not of the sharply etched variety we have observed in some other phones; the HD-400 has an easy and natural-sounding way of presenting the listener with music, rather than giving him a rigorous expose of the blemishes on the recording and performance. But perhaps the most uncanny trait possessed by these Sennheiser headphones is the ability to convince the ear that the sound is coming not from a source in contact with its outer structure, but from much farther away. Whether this is because there is no reflected sound—as from a cup surrounding the ear—is hard to say, but the effect is striking.

The HD-400 is sensitive enough (a 1-milliwatt input produces 88 dB sound pressure level) and of high enough impedance (600 ohms) to be used to monitor tape decks and preamps. At the same time it is rugged enough so that when it is driven to high levels from a power-amp headphone jack your ears will give up before it does. The ruggedness extends to the 10-foot cord, which seems far less likely to undergo untimely failure than those of some earlier Sennheiser designs.

These are possibly the most comfortable phones we have ever worn. The pressure of the foam pads on the outer ear seems a trifle high at first, but the compliance of the foam is sufficient to obviate fatigue for the tactile sense, just as the open, airy sound does for the sense of hearing. If at some point, engrossed in your favorite music, you begin to wonder where you left your Sennheiser HD-400 headset, the best place to look is on your head—you're probably wearing it.

Garrard 990B: Idler Wheel and Belt Drive


Comment: In the design of the 990B, Garrard has retained the idler-wheel principle, which allows convenient change of speed, and added belt drive, which provides superior isolation of the platter from any vibration that originates in the motor system. This design allows the use of a single motor that is very stable in speed and yet has sufficient torque to operate the record-changing mechanism. All of this, of course, tends to improve the cost/performance ratio.

Speed accuracy, as measured by CBS labs, is excellent. Once it is adjusted at 120 volts the 990B shows no measurable variation when it is tested at 105 and 127 volts. The user can vary the speed over a total range equivalent to a little more than a semitone at 33 rpm and somewhat less at 45 rpm. A strobe disc at the center of the platter mat aids in returning accurately to the normal speeds. The strobe, incidentally, is not lighted, but we experienced no difficulty when using normal incandescent light.

Weighted peak flutter measured according to the ANSI/IEEE standard averages 0.13% with a maximum instantaneous value of 0.20%, which is quite acceptable (and inaudible) although not in the championship class. Audible rumble, measured with the CBS ARLL weighting, is -54 dB and totally unobtrusive in listening.

The tone arm, which is of the conventional offset variety (rather than Garrard’s premium tangent-tracking type), moves with negligible friction in both the horizontal and vertical planes. Tracking force is variable from 0 to 2.5 grams with calibrations in half-gram steps and no detectable error at any setting. The antiskating bias (two scales are provided—one for conical and CD-4 styli, the other for ellipticals) is a hair less linear in its behavior and cannot be reduced quite to zero. This proves a minor inconvenience in balancing the arm, but otherwise causes no problem. The tone arm is well damped, showing a moderate 5-dB rise at the resonance point (9 Hz, tested with the Shure...
V-15 Type III cartridge). The automatic trip mechanism operates with vertical tracking force set as low as 0.2 gram, and the automatic start positions the stylus accurately just before the lead-in groove. (It is adjustable, in any event, via a screw in the arm-pivot mount.) The changer performs flawlessly and handles records as gently as one has a right to expect. A single-play spindle that turns with the record is provided, as is the large spindle for 45-rpm discs.

We found two small things relating to initial setup that could cause difficulty: The choice of screws provided to secure the pickup is insufficiently broad to accommodate all models with ease, and a wider range of overhang adjustment might have been useful. But the overhang mismatch we encountered was small and proved totally innocuous in our listening tests. And certainly these are problems that are easily erased from memory by the over-all convenience of day-to-day operation.

Considering the 990B in all its parts, we find it well suited for use in moderate-to-mid-priced systems. Its tone arm (which can handle just about any grade of cartridge, no matter how compliant) and cueing device (which can lift the arm and return it to virtually the same groove) are among its more endearing features. Though the level of performance doesn't push the state of the art, it certainly is solid. And if operating convenience, reliability, and economy are important to you, the Garrard 990B offers good value.

CIRCLE 133 ON READER-SERVICE CARD

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**Schober’s Recital Organ: The Ultimate Kit?**

**The Equipment:** Schober Recital Organ and bench in kit form, with two 61-note manual keyboards and 32-note radiating pedal klavier. Dimensions: Console: 55 inches wide by 29 inches deep (47 inches with pedals) by 44 inches high (54 inches with music rack). Bench: 27 by 48 by 13 inches. Price: Kit of electronic parts for basic organ, $2,139; “Wood Kit” of parts for console and bench, $434.50; kit of parts for pedal klavier, $276.50. (Total, $2,850.) Warranty: five years on all parts.

Accessories included in model tested: Reverbatape tape reverberation unit, $279.50; two-channel Reverbatape adapter, $18; percussion electronics and keying mechanism, $292; mixer (required for use of Reverbatape and Percussion on same organ), $34.50; Library of Stops (parts for additional voicing filters), $28.50. Other accessories available: Dynabeat (rhythm generator), $169.50; Dynamaster (automated rhythm generator for use with Dynabeat), $289; one-channel power amplifier, Model TR3M, $176; two-channel power amplifier, Model TR3D, $240; standard loudspeaker, Model LSS10AC, $250; premium loudspeaker, Model LSS100G, $775; Leslie speaker (assembled), Model LSL-150, $250; combination action (pushbutton selection of preselected stops), $450; ChimeAtron (chimes, assembled), $800. All accessories in kit form except as noted. All prices plus shipping. Demonstration record for Recital and other Schober organs, $1.00 postpaid.


Comment: The Schober Recital Organ is a superb sounding instrument. Even with its substantial price tag, this kit...
finds competition only in wired units costing roughly twice as much. It is the only organ kit available that meets all specifications of the American Guild of Organists. The two 61-note manual keyboards, 32-note radiating pedal klawer, general placement and operation of voicing assembly, touch and action of keyboard and pedals, and physical dimensions are identical to many full-sized nontracker pipe organs such as might be found in churches or classical recital halls. A wide range of optional accessories is available to expand the basic organ to suit the requirements of the most sophisticated organist.

The basic organ must be played through a separate amplifier and loudspeaker system, as neither is built into the organ console. Our constructor used a high-quality stereo system with plenty of amplifier power and good deep-bass response. Schober also offers accessory amplifiers (which can be built into the console) and separate speaker systems designed specifically for organ reproduction.

In a row above the upper manual are the voicing (stop) tablet switches, divided into three groups, for the pedals, the Swell (upper manual), and the Great (lower manual). Selection of a stop tablet determines both timbre and over-all pitch register of notes played on the corresponding keyboard. A listing of the standard stops is given in Table I. The 8-foot pitches correspond to the stop of a piano, while 4-foot pitches are transposed one octave higher and 16-foot one octave lower. Red lettering is used on white voicing tabs to indicate reed timbres, with the remainder lettered black on white. As many stops as desired can be selected simultaneously.

Black intermanual couplers allow one division to be played from another keyboard. With the Swell-to-Great coupler engaged, for example, keying the Great manual simultaneously sounds the stops selected on both keyboards. With the organ set up for stereo, the Great and Swell divisions are heard over separate loudspeakers. Intramanual couplers also are provided. These add octave-higher or octave-lower pitches to the 8-foot stops selected by the voicing tabs. Thus, for example, an 8-foot flute on the Swell is changed to a 4-foot and 8-foot flute ensemble by depressing the Swell-to-Swell 4'-coupler. The available couplings are included in Table I.

A final white tab switch activates the vibrato. This frequency-modulates the organ output to simulate the vibrato of a human voice or instrument, or simply to add depth to the organ sound. A three-position rotary switch sets the vibrato's intensity, while a similar switch determines whether the Swell, the Great, or both manuals will receive vibrato. A second pair of switches controls the pedal channel; one routes the output of this division to the Swell, the Great, or both playback channels, while the second sets relative pedal loudness in three discrete steps. Foot controls (expression pedals), located above the pedal klawer, individually set the loudness of the Swell and the Great playback channels, including any mixed pedal signal, over a continuous range. Internal controls further balance relative volume among the three organ divisions, while other adjustments determine the speed of vibrato and the over-all brightness of each channel.

For an organ equipped with the optional Reverbatape unit, a potentiometer sets the amount of reverberation added to the direct output. For an instrument equipped with the percussion unit, a rotary switch above the reverberation control selects a single percussion voice that can be keyed at the Swell manual. The available percussion voices are listed in Table II. Three of these voices are "reiterating"—sounding repeatedly as on a strummed mandolin—while the remaining five are sounded and released once for each keystroke, as on a piano. The percus-
the other internal controls is simple. Initial debugging time was zero: Our unit worked the first time power was applied. After some operation, however, one oscillator was found intermittent and one lacked normal harmonic structure. The first problem was traced to wax covering a capacitor lead—something Schober's manual had warned us to avoid. The second was caused by a solder bridge, a problem that should be rare with the large printed circuit boards provided by Schober. A second, less obvious solder bridge was found on the underside of the percussion boards.

More difficult to solve was a broken connection on the underside of one keyboard assembly, which made one note inoperative in its 2-foot register. Access to these boards, which are pre-assembled by Schober's supplier, is nearly impossible without major disassembly. Our constructor used an external splice. The reiteration of the percussion unit was poor, but the very complete Schober troubleshooting package quickly provided a solution: changing the value of one capacitor. Finally, the hum level of some of the percussion stops and of the reverberation unit was found high. The percussion hum was removed via a modification kit, now included with this accessory. The hum in the reverberation unit was reduced by swapping leads on several terminals until it balanced out.

The really small number of problems (all relatively minor) attests to the over-all quality of the kit instructions and parts, and also to the simplicity of troubleshooting this type of instrument. The completed unit can easily be moved from the place of construction to the music room by two average persons as none of the three pieces (console, bench, and pedal klavier) is extremely heavy. If the Reverbatape is used, you'll have to get at the rear of the console each hundred hours of use for replacement of tape loops. Furniture glides are provided on the console bottom, but our constructor found it desirable to protect rugs and floors by setting the unit on a smooth Masonite panel during checkout and for the first few months of operation.

In operation, the Recital has a solid keyboard touch and perfect pedal action. As with any AGO organ, as many pedals as required can be sounded simultaneously. All keying switches are of high quality, exhibiting neither switching noise nor clicks. All octaves of a key sound in synchronization, probably more so than do actual pipes. Stop tablet selection is silent, and the use of optical isolators (rather than running the signal direct through the potentiometers) keeps the swell-shoe volume controls quiet. Some oscillator leakage can be heard in the Swell channel with all keys up (we attributed this to the added mixer circuit in this channel), but it is noticeable only when the softest stops are selected and is reduced by setting the microphone-input control to zero. Vibrato and over-all tone balance are just about ideal. The prodigious bass output of some stops taxed our constructor's reproduction system to its limits. If you don't hear deep bass with the Recital, don't blame the organ.

The Recital is intended to simulate a pipe organ, with voicing appropriate to the classical repertoire. (Pops-oriented sound is available in a sister top-of-the-line kit, the Schober Theatre Organ.) The standard voices emulate true organ pipes, including not only the obvious Bourdon, Principal, Diapason, Nazard, and Flute stops, but also the strings (Gamba, Contra Violone) and reeds (Contra Fagotto, Trompette, Clarinet, and Oboe). The range of tone color is as wide as that of a small church organ, and the number of stops is entirely appropriate to the basic classical repertoire. Most important, all stops on the Recital
have specific and unique timbres, unlike some other organs whose plethora of stops include several virtual duplicates.

The over-all sound of the Recital is pleasing and realistic. All of the basic flute and "principal" stops are smooth across their ranges and audibly excellent, particularly in ensembles. This full range of foundation stops is the heart of a good classical instrument. A remaining 20% or so of the stops add prominent tone color for use as solos or with a reduced ensemble of basic stops. Some of the color stops are excellent (the Clarion and, in the lower octaves, the 16-foot Contra Fagotto, for example); some are a bit more electronic (the Trompette and the Clarinet come to mind) until the brightness control is set somewhat dull. With some basic stops added, however, all color stops produce pleasing results in at least some part of their range.

Since each of the Recital stop filters is constructed on an individual printed circuit board that also goes into the registra- tion electronics, stops can always be revoiced at will. The array of plug-in filters is easily accessible from the front of the organ via the hinged lid. A very inexpensive accessory, the Library of Stops kit, provides filter design instructions, three blank gold-plated printed circuit filter cards, a supply of parts for at least ten different replacement filters, and about two dozen schematics for common organ stops. Additional cards are available for $1.50 each, and custom-engraved stop tabs can be obtained for $2.00 for permanent stop installation. Our constructor tried several from the kit and was impressed by an English Horn and a Modified Regal 4', which are totally different from any of the standard stops. This flexibility of format was judged one of the Recital's outstanding features.

Although not normally part of a classical instrument, the percussion accessory was judged both attractive and valuable. The bell sound is especially effective, as are the harpsichord and piano over the middle portions of their ranges. Four octaves at 8-foot or 4-foot pitches are available, which is a generous span. (Although our unit did not come with rhythm accessories, we should point out that these options are intended to simulate nontonal percussion instruments, while the Percussion unit simulates sounds with identifiable pitches.)

The Reverbatape unit is a monophonic tape recorder with one recording head, three playback heads, one erase head, and an endless tape loop. An input signal produces three output signals, each altered in frequency response and progressively weaker and delayed by 100 milliseconds. The 300-millisecond delayed signal is fed back to the input to give further delay, and the composite output is mixed with the undelayed input signal or signals to simulate hall reverberation.

Unlike typical spring reverberation units, this tape delay provides excellent simulation of large three-dimensional space—particularly important for organ music, where large halls are a necessity for full bass response. Noise, hum, and speed irregularities are higher in this unit than in a typical quality home tape deck; electrical performance is adequate.

The Recital is well suited to any home or small church. And it just might make an organist out of someone who has never tried. You must audition and play one before considering any organ purchase. The sound of the Recital can be evaluated for oneself from an inexpensive LP demonstration record available from Schober. Its organ catalogue is free, informative, and beautifully illustrated. Some differences exist between the disc, the catalogue, and the actual organ, but they are minor.

**Table I Standard Stops**

<table>
<thead>
<tr>
<th>Swell:</th>
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<tbody>
<tr>
<td><strong>NORMAL</strong></td>
</tr>
<tr>
<td>16' Bourdon</td>
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<tr>
<td>8' Geigen Diapason</td>
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<tr>
<td>8' Stopped Flute</td>
</tr>
<tr>
<td>8' Gamba</td>
</tr>
<tr>
<td>4' Geigen Octave</td>
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<tr>
<td>4' Concert Flute</td>
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<tr>
<td>2½' Nazard</td>
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<tr>
<td>2' Principal</td>
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<tr>
<td>2' Flauto</td>
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<tr>
<td><strong>RESONANT:</strong></td>
</tr>
<tr>
<td>16' Contra Fagotto</td>
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<tr>
<td>8' Trompette</td>
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<tr>
<td>8' Clarinet</td>
</tr>
<tr>
<td>8' Oboe</td>
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<tr>
<td>4' Clarion</td>
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<th>Great:</th>
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<tbody>
<tr>
<td><strong>NORMAL</strong></td>
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<tr>
<td>16' Contra Violone</td>
</tr>
<tr>
<td>8' Principal</td>
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<tr>
<td>8' Flute</td>
</tr>
<tr>
<td>8' Dulcinea</td>
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<tr>
<td>4' Octave</td>
</tr>
<tr>
<td>4' Chimney Flute</td>
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<tr>
<td>2½' Twelfth</td>
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<tr>
<td>2' Fifteenth</td>
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<tr>
<td><strong>RESONANT:</strong></td>
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<tr>
<td>8' Trumpet</td>
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<tr>
<td><strong>MIXTURE:</strong></td>
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<tr>
<td>4' 2½' 2' Mixture III</td>
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<th>Pedal:</th>
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<tbody>
<tr>
<td><strong>NORMAL</strong></td>
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<tr>
<td>16' Contra Bass</td>
</tr>
<tr>
<td>16' Bourdon</td>
</tr>
<tr>
<td>8' Principal</td>
</tr>
<tr>
<td>4' Choral Bass</td>
</tr>
<tr>
<td><strong>RESONANT:</strong></td>
</tr>
<tr>
<td>16' Fagotto</td>
</tr>
<tr>
<td>8' Trumpet</td>
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<tr>
<td>4' Clarion</td>
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<tr>
<td>2' Zink</td>
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<tr>
<th>Couplers:</th>
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<tbody>
<tr>
<td><strong>INTRAMANUAL:</strong></td>
</tr>
<tr>
<td>Swell Stops to 4' (Adds 4-foot pitches)</td>
</tr>
<tr>
<td>Swell Stops to 16' (Adds 16-foot pitches)</td>
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<tr>
<td><strong>INTERMANUAL:</strong></td>
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<tr>
<td>Swell Stops to Great keyboard</td>
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<tr>
<td>Great Stops to Swell keyboard</td>
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<tr>
<td>Swell Stops to Pedals</td>
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<td>Great Stops to Pedals</td>
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**Table II Percussion Stops**

<table>
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<tr>
<th>NORMAL:</th>
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<tbody>
<tr>
<td>Harpsichord (8')</td>
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<tr>
<td>Piano (8')</td>
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<tr>
<td>Chrysoglott (8')</td>
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<tr>
<td>Celesta (4')</td>
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<tr>
<td>Orchestral Bells (4')</td>
</tr>
<tr>
<td><strong>REITERATING:</strong></td>
</tr>
<tr>
<td>Mandolin (8')</td>
</tr>
<tr>
<td>Xylophone (4')</td>
</tr>
<tr>
<td>Orchestral Bells (4')</td>
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CIRCLE 132 ON READER SERVICE CARD
While the market slumped, significant improvements were being made in the equipment and recordings of all three contending systems.

by Alfred W. Myers

Four-Channel Sound Today
A Very Lively Corpse

IF—with apologies to Mark Twain—the reports of the death of quadriphonics have been greatly exaggerated, where in fact has it been hiding? Ac-

Alfred W. Myers, a student of audio developments for fifteen years, has an avid interest in quadriphonics.
Photomicrographs demonstrate an essential and important difference between the grooves of a stereo or matrixed-quad disc (near right) and those of a Quadradisc (far right): the “corrugations” representing the 30-kHz CD-4 carrier.

According to those in the know, it was last seen emerging again from the laboratory, where it was being groomed once more to the state of sophistication it should have possessed at its debut. To say that quadrophonics is being resurrected would overstate the matter; it never died. Growth has been slow—almost imperceptibly slow—but it has been real. Software is available and selling to an eager if not insatiable market, and, as knowledgeable audio dealers realized from the start, a profit can be made selling quad hardware. Whether any of the three contending disc systems, SQ, QS, and CD-4, will eventually become dominant is still anybody’s guess, but all have more refined hardware and a reasonable amount of software.

From the outset, the promoters of quadrophonics have been divided into warring camps: those who support matrix systems and those who support discrete systems. Originally quadrophonics was totally discrete, requiring the use of a four-channel tape recorder. But economics dictated that, if the new medium were to achieve any degree of popular acceptance, it would have to be accessible on disc. While in theory it is not all that difficult to design a stereo-compatible disc carrier system to handle four independent channels, practical achievement of this goal required a virtual revolution in the technology of disc and phono-pickup manufacture, not to mention the introduction of modulation and demodulation hardware, which was totally new. The “discreteness” achieved is far from absolute. For example, an interfering and unrelated signal that is suppressed by 30 to 35 dB—the current limit of separation for CD-4—would be annoying indeed.

But in music the four signals are not independent, a fact that makes CD-4 altogether usable. It also suggested an alternate approach: Since a good deal of the information transmitted via four independent channels is duplicated and therefore redundant, might it not be possible to squeeze four interrelated channels into two; record them on a standard disc that could be played as ordinary stereo or even mono, if desired, and sort things out again at the listening end? Matrix proponents thought so and showed that it could be done, albeit with less channel separation at the output than really desirable. It was then demonstrated that more elaborate “decoding” of the two recorded channels could boost the separation of the recovered four channels to a level comparable with that of a discrete system. Unfortunately, there is a lack of general agreement as to the optimum matrix encode/decode system, and the Sansui and CBS methods—QS and SQ, respectively—continue to fight it out.

The Box Scores

Record companies have sensed that they might one day soon find themselves losing out on the profits to be had from four-channel sales and have sought to cover themselves. Most American labels—at least recently—have chosen CD-4; RCA, once the lone U.S. supporter of that format, now has plenty of company. Since 1973 the W.E.A. group (Warner Bros., Elektra, Atlantic, Asylum, and Reprise) has been using CD-4. A&M Records, after marketing four-channel discs with both the Sansui QS matrix and Columbia’s SQ, announced its conversion to CD-4 last year. Fantasy Records has released several CD-4 discs; in May of this year the first from Arista became available. Enoch Light’s Project 3 label has produced discs in all three formats, but its recent four-channel recording has been in CD-4 and SQ.

Columbia (and its subsidiary, Epic) has been promoting CBS’s SQ matrix right along. Of course, and has been joined by the British EMI group, which in this country owns Angel and Capitol Records. Last year EMI announced that, all over the world, its future classical recordings (except such things as solo piano recitals, which do not benefit from quad) will be released only in stereo-compatible SQ, thus eliminating double inventory. CBS also has announced a single-inventory policy for classical recordings—and eventually, perhaps, a total single inventory, including rock and pops. The SQ system has gained the support of some smaller labels, such as Supraphon and Connoisseur Society.
Sansui's QS matrix has suffered (in this country) from lack of software support. Obviously, Sansui has no major record company to stack up with those of RCA and CBS. But on a worldwide basis more QS discs are available than SQ. Although it lacks a single major software source, QS has been adopted by labels such as Vox, ABC/Dunhill, and Command. Several years ago Polydor released the rock opera Tommy in QS, but this is the only four-channel disc to come from Polydor—or from Deutsche Grammophon, its classical arm. Recently, Quadratrak, a small company that has won high praise for its quadriphonic tapes, chose QS for its four-channel discs.

Not all record companies have made moves to quadriphonics, but of those that have, not one has since ceased issuing four-channel discs. On the other hand, several equipment manufacturers have retrenched their four-channel efforts. Harman-Kardon and Radio Shack have left this market entirely, and other companies have trimmed back their lines, usually retaining only their state-of-the-art gear. But the important point for consumers is that the surviving hardware represents, for all three systems, a new level of maturity.

QS and the Decoder/Synthesizer

One of the main sources of support for the Sansui matrix is FM broadcasting. More than eighty stations in this country broadcast QS-encoded programs, many twenty-four hours a day. And QS broadcasting is beginning in Europe as well. Sansui Vario-Matrix decoding equipment, too, has won wide recognition for excellent enhancement of two-channel signals: The ability to synthesize quad from the millions of two-channel records in circulation could become an important plus. Last year Sansui began to market its first high-separation outboard decoder, Model QSD-1, which contains three Vario-Matrix circuits plus a band-splitting arrangement. Each "decoder" covers a specific area of frequency range, providing a very high (and stable) degree of directionality and channel separation—typically 20 dB or more between adjacent channels and 30 dB diagonally.

A feature unique to Sansui receivers has now been included in the QSD-1 decoder as well. At the "flip of a switch" the listener can enhance a two-channel recording and choose between surround sound and concert hall ambience with the rear channels limited to providing "depth" reverb-beration. But this is much more than a reverb unit and has to be heard to be fully appreciated. [It is discussed at length in the article on reverberation recovery and simulation in the October issue.]

SQ and Logic

In the early years of quadriphonics, the major flaw in Columbia's SQ system (and other matrix formats) was crosstalk and leakage between channels. Early SQ decoders often gave no more than 3 dB of front-to-back separation. CBS has always insisted that its quadriphonic records be totally compatible with existing stereo playback equipment, manufacturing processes, and FM broadcast standards, and this requirement compromised separation. The industry realized that for SQ to win public acceptance, circuits to improve its separation would have to be designed. Such "logic," variously known by such names as gain-riding, wave-matching, and vari-blend, is now widely available. But, although logic circuitry improved separation, it has not been a panacea; logic can be boggled when the four channels are approximately equal in level.

There are now three SQ "super" decoders with a higher degree of separation, and less tendency to boggle, than ever before. Audionics of Portland, Oregon, markets its Shadow Vector Analysis unit that offers channel separation in the range of 35 dB. Because it is made from discrete components (no all-in-one IC), it costs about $1,300. CBS has developed its own Paramatrix decoder, which (in prototype) has earned many favorable comments at audio exhibitions. CBS is quick to point out, however, that Paramatrix is experimental and not at all ready for commercial sales—and it may never be. Meanwhile, the corporation has placed its bets on a third new decoder, the Tate Directional Enhancement System. First shown at the Consumer Electronics Show in June 1974, the Tate received high praise; quadrophiles have waited impatiently.
for its commercial introduction. Tate decoders are beginning to appear, but in very limited quantities. The delay was caused by the lengthy process of reducing the complex circuitry to integrated-circuit form. Eventually, Tate circuitry will appear in four-channel equipment from a number of manufacturers. An outboard Tate decoder is slated to become available from Audionics, the same company that produces Shadow Vector.

**CD-4 Modulation and Demodulators**

While the matrix forces had to contend mainly with channel separation (or lack of it), CD-4 had a host of problems to overcome before it could be considered even practical. Early Quadradiscs had severe playing-time limitations because of the inability of the cutting stylus used then to engrave the 30-kHz carrier signal on the grooves close to the center of the master disc. The dynamic range had to be compressed, with over-all lower recording level, to avoid intermodulation distortion between the baseband and carrier signals. But the biggest problem was noise and distortion.

Today's Quadradiscs bear little audible resemblance to their early counterparts. RCA and JVC have jointly developed a new system for cutting CD-4 masters. Replacing two earlier models, the updated units are smaller, easier to use, and considerably less expensive. They allow a CD-4 master to be cut both at higher levels and with less distortion. This wider dynamic range lets today's CD-4 listener relax, free of the feeling that distortion is just around the next bend. Current Quadradiscs are pressed on new vinyl compounds that are harder and less prone to wear and that contain special antistatic ingredients and higher degrees of lubrication.

But these refinements would mean little if the quality of CD-4 playback equipment had not also improved. A state-of-the-art demodulator can claim about 35 dB of separation at 1 kHz and 25 dB at 10 kHz, regardless of the behavior of the music signal. Lou Dorren of Quadracast Systems, Inc., is offering CD-4 demodulation circuitry in an IC that is used in the new Technics SH-400 demodulator as well as in several Technics quadriphonic receivers. Recently it appeared in a demodulator kit from Southwest Technical Products. Besides the phase-locked loop found in all modern demodulators, the QSI chip includes a new high-speed noise-suppression circuit that mutes the entire carrier recovery system in the event of transient carrier loss. Older demodulators, under the same conditions, often went into an “unlocked” condition and generated noise and distortion. The IC uses heavy limiting (up to 40 dB) of the 30-kHz carrier and is therefore relatively insensitive to changes in carrier level. JVC has elected to develop its own CD-4 IC, and this too is appearing in hardware. An ultrasophisticated JVC professional demodulator, the CD4-1000, is offered—for nearly $1,500. A consumer version is due shortly at a price of about $500.

Though a few of the early “bad” Quadradiscs still lurk about to plague the unwary buyer, CD-4 has solved most of its problems. There are still some playing-time limitations (a recent RCA set of Mahler's First and Fourth Symphonies, accommodated on two separate stereo discs, needed three Quadradiscs), but these represent a reasonable tradeoff for the new opulent sound.

So it seems that quadriphonics, which suffered at the time of its debut from overenthusiastic promotion and disappointing performance, has awakened refreshed from its deep slumber with most of its ills cured, or at least alleviated. All of the contending systems are still in the race—which, it seems, is likely to continue for some time. This is not an ideal state of affairs from the consumer's point of view, for it presents him with an agonizing choice: Which system shall I buy? Unfortunately, if you want four-channel recordings of Leonard Bernstein (SQ—Columbia), Herbie Mann (CD-4—Atlantic), and B.B. King (QS—ABC or Command), you need all three. But anyone who decides to wait for the industry to settle on one system will, in the meantime, miss out on some great listening. From where this listener sits, quadriphonics' time is now.
How much

Sansui

5050

6060
power
do you really need?
Sansui has the answer.

Power is, of course, one of the most important characteristics in the quality of a receiver. But it is only one of them. There is also the tuner section which should offer especially high sensitivity and selectivity, and a great stereo separation. And the Sansui 9090 does: sensitivity of 9.8 dBf (1.7 µV); selectivity of better than 85 dB; stereo separation of better than 40 dB at 1 kHz, and also a wide linear dial for both AM and FM tuning. Equally important are the capabilities and features of the pre-amplifier and control sections. Such as; triple tone controls, extremely accurate RIAA phono pre-amplifier with wide overload capability, many versatile inputs and outputs, microphone mixing control for blending mic signals with any other source, tone defeat switch, capability of handling three speaker systems, a 7-position tape copy switch, and a Dolby® 25 µsec de-emphasis. Of all receivers available today only in the Sansui 9090 and 8080 will you find all of these desirable elements.

And when you select a receiver, look for well-designed protection circuits to protect your amplifier and speakers, and a solidly designed power supply capable of continually delivering the total power, undistorted. With the Sansui 9090, which delivers an ample 110 watts per channel into 8 ohms, min. RMS, from 20 Hz to 20 kHz with no more than 0.2 percent THD, you get both of these. The 9090, 8080 and 7070 also feature twin power meters for monitoring output, which few other manufacturers offer.

The other models in this outstanding new line of stereo receivers share many of the same fine characteristics as the top of the line models.

So remember. Your receiver is the heart of your high fidelity system. If you listen to a 9090 or any one of the fine receivers in this Sansui series, you will quickly know that you are listening to the best receivers available today.

Go to your nearest franchised Sansui dealer today. He will make certain that you buy the receiver that matches your needs, your likes, and your budget. Sansui has the answer.

*Im. Dolby Labs

The 9090 is a superior value at less than $750. * If the 9090 is more than you need ask for the 8080 with 80 watts per channel, min RMS, both channels into 8 ohms, from 20 Hz to 20 kHz with no more than 0.2% total harmonic distortion at less than $650. * Or the 7070 with 60 watts per channel, min RMS, both channels into 8 ohms, from 20 Hz to 20,000 Hz with no more than 0.3% total harmonic distortion at less than $550. * Or the 6060 with 40 watts per channel, min RMS, both channels into 8 ohms, from 20 to 20,000 Hz with no more than 0.4% total harmonic distortion at less than $420. * Or the 5050 with 30 watts per channel, min RMS, both channels into 8 ohms, from 20 to 20,000 Hz with no more than 0.5% total harmonic distortion at less than $320. * 9090 in walnut veneer. All other cabinets in simulated walnut grain.

Sansui. A whole new world of music.

SANSUI ELECTRONICS CORP.
Woodside, New York 11377 • Gardena, California 90247
SANSUI ELECTRIC CO., LTD., Tokyo, Japan
SANSUI AUDIO EUROPE S.A., Antwerp, Belgium
In Canada: Electronic Distributors
CIRCLE 48 ON READER-SERVICE CARD
is it worth to you?
by John McDonough and Allan Ross

IF YOU THINK it's Carole King or Elton John or Burt Bacharach who fashions the music America hears most, think again. The writers who give America its most familiar, if not always most beloved, songs are an almost totally unknown breed of superstar, the commercial jingle writers for TV and radio. In a nation of capricious consuming, none of us is beyond their reach. Some consider this music the
dearest price America pays for prosperity. But nearly everyone forks over.

Commercial jingles have been scorned by presidents (Herbert Hoover), banned from the air (by a station in Detroit "in the public interest" and another in New York that felt they would conflict with the classical music the station featured), and derided by practically everyone who has ever heard one. Yet they are still very much with us. Why? Perhaps because the singing commercial is the most effective device yet found to slip a product name past the conscious mind and into the subconscious of the consumer. If you doubt the staying power of jingle tunes, try running through these words in your mind without hearing the music associated with them:

You get a lot to like with a Marlboro:
Filter, flavor, flip-top box.
Brush your teeth with Colgate. Colgate dental cream.
It cleans your breath—what a toothpaste!—While it cleans your teeth.
Winston tastes good like a (clap, clap) cigarette should.

See what we mean? Each of those cotton-candy minimelodies has been nearly as extinct as the dodo for up to a decade. But if you heard them once, chances are you can hum them now.

Some feel that commercials don't count as music. But they do count in the countinghouses. And composers labor just as hard over them as their more celebrated colleagues do over tunes destined for Broadway or Hollywood. Commercial music is very big business indeed, for those who write it, arrange it, perform it—and certainly for those who pay the bills for it, meaning the advertisers. Because it is big business, few chances are taken. Unlike ordinary popular music, which must charm its listeners, jingle music must charm its way into the favor of listeners nationwide, the jingle buys its way in.

"When you have a $20-million media budget to put behind eight or twelve bars of music fifty times a day for a year," one senior creative director of a top-banana advertising agency told us, "you're going to make sure you get remembered. Maybe 25,000 pieces of music enter the pop market in a year, and let's say twenty-five reach huge national audiences cutting across all age groups. An advertiser can't live with those odds. He has to know precisely who and how many he's going to reach before he spends a dime. So he manipulates the odds in a way record companies can't. He buys outright the airtime the pop artists hope to get by the luck of the draw."

John McDonough has frequently contributed to HF, most recently with "The Multiple Lives of John Hammond" (June). Co-author Allan Ross makes a dual bow in this issue: He writes about a unique recording with a price tag of $50 on page 144.

So it is that, ever since Pepsi Cola hit the spot with a tootsie-tapping treatment of the old English folk ballad "John Peel," jingles have been achieving the sort of pop culture immortality normally reserved for a Foster or Sousa melody. And occasionally they've even bolted the commercial ghetto in a successful leap to the pop charts. Sid Ramin hit it big with the Diet Pepsi number that became "The Girl Watcher's Theme." Recent sleepers include a tune composed for the Crocker Bank in San Francisco in the mid-Sixties. It ran its course as a commercial, and that was that—until it reappeared five years later to become one of the great ballads of the Seventies, "We've Only Just Begun." The composer of the "jingle" was Paul Williams.

The process works the other way, too. For many reasons, pop classics are occasionally recruited into thirty-second service for a product, depending of course on the inclination of their composers to permit it. A licensing fee of $50,000 had a positive effect on Carly Simon's inclinations when Heinz prevailed upon her to let "Anticipation" accompany its slow catsup on a tortuous trip to a hamburger. Jimmy Dorsey's Forties hit "Tangerine" became the basis of Pillsbury's Figurines campaign by the coincidence of the product name's perfect scansion in the opening bars of the tune. And when J. Walter Thompson sought established stylistlness for a classy 7-Up spot, Cole Porter's "De-lovely" became the choice. Licensing fees depend on the use of the material (network or local, a week or six months, etc.) and the prestige of the song. The $50,000 shelled out to Simon represents top music dollar, however. (TWA paid the same for "Up Up and Away." ) But many advertisers think it's worth it since there's no need to spend millions establishing the melody up front.

Perhaps no product has generated more top-flight jingle music in recent years than Coca-Cola. You can almost trace the mood of middle America through the changing Coke spots. Remember when a large and conspicuously international chorus stood on a serene hilltop singing "I'd like to buy the world a Coke?" No music spoke more directly to a country whose national mood and style were being set by a guilt-ridden counterculture. (Billy Davis, formerly of Chess Records, wrote the tune; the Seekers later made it a smash hit in 1971.) Then the guilt passed and the counterculture looked for work. Brotherhood was out, national pride was in. "Look up, America" celebrated national symbols from Astaire and Rogers to Louis Armstrong to baseball. Suddenly everyone was crowding onto the "America" bandwagon. (One ad copywriter recalled participating in meetings in which highly paid, allegedly rational men sat around trying to figure out how the concept could work for LaChoy chow mein!) The
latest is "Coke Adds Life," one of the best in an overpopulated Bicentennial field. They all result from the efforts of a music-minded McCann-Erickson creative director named Bill Backer, who, through remarkable talent and a dollop of political savvy, has managed to corner the incredibly lucrative Coke account as his own special preserve.

Backer is an anomaly, however. Ron Hoff, executive creative director at Foote, Cone, & Belding and progenitor of "Merrill Lynch is bullish on America" as well as Hallmark Cards' TV work, says, "When it comes to music, virtually all advertising people are dum-dums. They've had no training. They don't understand it. And their critiquing ability reflects both. Jingles are rejected with such piercing observations as, 'Man, I don't know. It just isn't hummable.' They can be ruthless, too, to no good purpose. Wide-open, uncompensated competitions for ad campaign themes are the rule with some agencies. Ben Allen, writer/producer of Martini & Rossi's "Say Yes," said something less printable when he found he was one of fifty-four competitors for the Pabst account. No one got the gig.

To be fair, some agencies play a positive role: Some provide copy to which successful jingles are written. Tom Dawes's "Plop, Plop, Fizz, Fizz" being a prominent instance. But most agencies realize their limitations even if they might not admit them as candidly as Hoff. So they go to specialists: music houses that write, arrange, and often produce the sessions that produce the music. It's a field that's populated with some surprising names. The Tonight Show's Tommy Newsom is a top commercial arranger, and so is jazz drummer Chico Hamilton. But mostly it's a business of total public anonymity. Perry Botkin Jr., Mark Lindsey, Herman Edel, Rich Manners, Dick Marx, and more, every one a certified noncelebrity. There are about one thousand music houses in the country, of which maybe fifty produce the most familiar national jingles.

Among the best known is the New York organization called Herman Edel Associates, a loosely knit consortium of about a dozen of the city's top ad-music talents. Presided over by Susan Hamilton, a tireless and sometimes tyrannical former concert pianist, it is the source of the largest number of quality commercials in the industry, according to many observers. A few of those who job out of her office are Jake Holmes (7-Up's "Un for All"), Dick Behrke (McDonald's "Glass to Go"), and Al Gorgoni (the instrumental-only spots for Fayva and Pizza Hut). Ms. Hamilton combines an uncanny knack for finding talent and matching it to advertisers' needs with a decidedly nonformula approach. She doesn't agree that "slow is bad, fast is good." or "minor is bad, so sharp the third," or "soft is only for cosmetics and condominiums." Agencies who use Susan Hamilton are looking for musical leadership. But if a client has an idea that is really fresh, Susan will try it. And people like working for and with her.

Music houses employ staffs of composers and arrangers, but like the agencies they often go outside for certain jobs, mostly to independent and free-lance writers. United Airlines' "Mother Country" was written by Jerry Lilidahl for Opus III Music Company, which had been hired by Leo Burnett. Milton Blackford produced "Me and My RC" for Kelso Herston Enterprises, Nashville, another Burnett job. A young singer/composer called Ginny Redington, a performer at various spots in New York's Greenwich Village, took the words "you, you're the one" and spun them into the nation's most famous hamburger aria for TV's richest music bankroller, McDonald's. Sid Woloshin & Company was the broker in the process, just as it had been earlier when it brought Kevin Gavin's classic "You Deserve a Break Today" to the same client. The prime contractor in the music search was McDonald's ad agency, Needham, Harper, & Steers, which worked with a dozen music houses for more than a year before making the final selection. Barry Manilow, who composed "Like a Good Neighbor" for State Farm and the Dr. Pepper jingle, scored, played, and sang his way through many a McDonald's session. That's all behind him now, though, except for his medley of "hits" from his commercial days. He's a star.

Bobby Whiteside's a star too, even though few know his name. That makes him typical of the commercial music establishment. Whiteside, the composer of such melodies as "America Loves What the Colonel Cooks" (with Fred Kaz) and "Hey, What Ya Got There? It Looks like Tomato Juice," runs his own show. At the tender age of thirty-five, he has achieved an impact equal to many of the larger music houses. His reach ex-
The TV spots you remember are brought to you through the cooperation of music-house talent jobbers like Susan Hamilton and ad-agency creative directors like McCann-Erickson's Bill Backer.

...tends far and wide across the commercial culture, as arranger behind "Get a Bucket of Chicken" and the "Schlitz Malt Liquor Bull" and as composer of many of the movie-style scores that unobtrusively (and sometimes obtrusively) underpin spots too numerous to mention. His work for 7-Up recently netted two Clios, the adman's Oscar.

Want thirty seconds of muffin music? Whiteside executed precisely such an assignment for Betty Crocker. Teapot music, tension music, traveling music, children's music—the descriptions are as abstract as the moods they seek to capture and package. "People in this business," he says, "have to be chameleons with a feeling for the musical sound of a mood. There's no room for self-indulgence or ego."

How does one get to be such a chameleon these days? Bobby began his musical training early. He dabbled halfheartedly in engineering and marketing at Northwestern University but never graduated. He became a full-time music professional, the basic qualification for service in the competitive commercial music field. Sometimes he was out front—he reached the charts in 1965 with "Say It Softly"—but more often behind the scenes. At Chess Records, Whiteside was a house arranger, producer, background vocalist, and conductor. It gave him a broad background and, more important, a production track record that got him his first TV music assignments by the mid and late Sixties. He's done so many since then he doesn't even remember his first. Yet he still considers himself part of the record business. As singer/composer/producer, he brings out occasional LPs under his own name that have no relation to his advertising work. ("Bittersweet Stories," Curtom/Buddah Records CRS 8603, is the latest.) Moreover, he sits as a member of the NARAS board of governors.

"In doing commercials you have to stay up with the market," he says. "And this means knowing what's going on in the record business. Ad music follows the lead of the record industry, which still boasts the greatest producers, musicians, and innovators in the country. If a new idea turns up in a commercial, it almost certainly was first done on a record. Advertising just can't afford the risks inherent in originality."

Advertisers pick up more than ideas from the record business. They rely on its talent establishment as well. When Whiteside enters a studio to record a tune for an ad, he may be working with David Spinoza or Billy Cobham, Clark Terry or Mel Lewis, Jon Faddis or Marvin Stamm. Or members of the Chicago Symphony or the New York Philharmonic. As for singers, often there is Gene Puerling, former leader and arranger of the original Hi-Lo's and now of Singers Unlimited, and his colleague Don Shelton. Time was when an aspiring singer looking for the big break could mark time and pick up quick money on commercial gigs. Today it's one of the most closed markets anywhere, next to impossible to break into.

Just like the composers, the singers are known for their music and not their names. Toni Wine's name would draw a blank among most, but they'd...
1. SONG: Last Friday night this dude shows up...

2. ... with twenty coats of paint.

3. I looked at my girl Wanda,...

4. ... she looked about to faint.

5. Said honey just stay loose...

6. ... 'cause I ain't scared...

7. ... of all that dough.

8. It's knowin' where to take the turn, and not how fast you go.

9. Me and...

10. ... my RC.

11. Me and my RC.

12. 'Cause what's good enough for other folks...

13. ... ain't good enough for...

14. ... me and my RC.

15. Me and my RC. Me and my RC, (Finale)
recognize "Let's Pick a Pack of Juicy Fruit Gum." You can't watch TV for thirty minutes without hearing Bonnie Herman (United Airlines, L'Eggs, Kentucky Fried Chicken) or Kenny Carroll ("Pow-Pow-Power of Cheerios") or Linda November (the cat's voice in the ad for Meow Mix). The list goes on and on.

The reason for the closed shop is discipline. Jingles and other incidental music are written to conform to precise visual sequences. Beats have to fall on exact frames. At twenty-four movie frames per second, the margin for error is slight. To keep performers—particularly drummers—in time, producers use a sort of space-age metronome called a click track, an electronic signal fed through headsets. One spot Whiteside recently wrote called for eighteen time changes in thirty seconds. Another had a time change every bar simply to keep up with the film editing. "Probably no field of music has higher standards of professionalism," Bobby insists. "Performers must be able to come into a studio, look at a score for two minutes, and play it perfectly. The rates are just too high to take any chances with unknown talent."

And they are high indeed: Not only do performers get session fees, they also collect residuals. Singers come under the American Federation of Television and Radio Actors (AFTRA) and Screen Actors Guild (SAG) agreements and get payments for each network telecast. Musicians and even arrangers receive residual payments usually through Talent Residuals, the logging and policing agency, every thirteen weeks. Everyone gets a royalty except, curiously, the composer of the tune. Jake Holmes, recalling his first big campaign theme, "Chevrolet, Building a Better Way," says, "I got $1,200 for it. I was happy. Then I found out that the singers got around $30,000 for the first year of air play. Each singer got $30,000! I went through the roof!" He also started singing on jingles.

People like Whiteside are compensated differently. It's one of the major differences between the pop and the jingle composer. When a pop song hits, it's like an annuity to its composer. Money comes in through ASCAP or BMI (for performances) and the Harry Fox Office (for records, tapes, and other "mechanical" reproductions). With jingles, however, it's big money up front, and that's it: no royalties, no annuity.

And no risk, you might add. The composer and advertiser know exactly what the air play will be, because it will be bought. There's no gamble over public acceptance. The public will take it, and maybe even like it.

For this reason the size of the creative fee depends on the size of the account. A good original tune can therefore be bought for as little as $500 for a local commercial or as much as $10,000 for a major network music campaign. The general range is about $2,500 to $7,500. In any case, no one seems to have any complaints over the flat-fee formula, least of all Whiteside, who has drawn his share of six-figure years from the system. "Anyway," he shrugs, "it doesn't really cost any more to write a great song."

Jingles are normally sold to ad agencies, who buy on behalf of their clients. But the music becomes the property of the advertiser—it's his money the agency is spending. Things are still negotiable, however. The composer of one nationally known jingle held out for the right to do all the subsequent arrangements of his melody and got it. If someone else does a chart, he collects his fee just like an absentee landlord.

And then there's Steve Karmen. Steve, a jingle superstar who sells Budweiser beer, Colt 45 malt liquor, and Beneficial Life Insurance, insists on writing all of his own music and lyrics, producing and arranging all of its spinoffs and variations, and keeping the copyright so he can license its use to ad agencies and collect a fee every time it's played. If the client or agency balks, he doesn't work that week.

Jingles aren't considered published music, even though they may fill the air for years. The right to publish as a pop tune is often up for grabs unless settled through mutual agreement, which normally will favor the composer if he wants to fashion his tune into a pop song. It occasionally pays off, as when the Hillside Singers recorded McDonald's "You Deserve a Break Today" under the title "We're Together."

"The fee I get for an original melody is not a complete buy-out," says Whiteside. "It covers the advertiser's ownership of an advertising jingle, not a publishable pop song. That potential belongs to me, and this arrangement is typical of other composers." ASCAP has set up policies regarding performance royalties for jingles, but they all seem to have been circumvented by various private arrangements. In Whiteside's case, he has his own ASCAP publishing company, Trendsetter's Music. Other music houses often do the same. In some cases agencies have publishing companies. And in one case a person who owned a company was hired by an agency on the condition that any original tunes the agency bought would be published through his company.

But basically, jingles are created to sell a product, not themselves. They weave their way into our lives, sometimes to the point where they seem to characterize an era. Then, as suddenly as they come, they disappear. Few people seem to miss them. One might think an album of "oldie but goodie" jingles would strike a nostalgic chord and sell well. But Whiteside disagrees: "Advertising jingles are created to sell you something. People look at their musical values to about the same degree as they view a used-car salesman as a human being."
Gunnar Johansen: The Complete Pianist

With the complete keyboard works of Bach and Busoni already recorded, a little-known virtuoso pianist nears the end of a similar project with Liszt.

Some artists, musical and otherwise, do their most important work outside the designated capitals of action. Gunnar Johansen, the seventy-year-old Danish-American pianist, is one of them.

A performer with an international reputation, he remains relatively unknown on the American musical scene. He has played Town Hall and Carnegie Hall in New York. He has concertized in Chicago and California and is a regular participant in the Romantic Music Festival at Butler University in Indiana. He has performed with major orchestras both here and abroad. But barring an occasional excursion into the bright lights, Johansen has for many years stayed away from the big time. Instead, he has served music as artist-in-residence at the University of Wisconsin at Madison and as a recitalist, performing chiefly with the Pro Arte Quartet.

In his last New York appearance, a surprise performance in 1969, Johansen found momentary fame when he saved a concert for the Philadelphia Orchestra by filling in for soloist Peter Serkin in Beethoven's piano transcription of his violin concerto. The transcription is so seldom played that he had never laid eyes on it before the SOS came to his studio only twenty-four hours before the concert. He sight-read eleven pages of Beethoven's own cadenzas at rehearsal with the orchestra. He was an instant hero, and his feat was hailed not only as a sensation, but as a near-miracle. It was, Johansen admits, one of the most exciting experiences of his life, but no surprise to him because he has always had what he calls an "insatiable appetite for reading music from my earliest days."

Born in 1906, he was introduced to music at the age of six by his father, a violinist and teacher. "He brought a quarter-size violin to my bedroom and bounced on the bed while playing some small tunes," Johansen says. "I took it up, but it only lasted a week. I couldn't stand his scolding."

Four years later, the boy began studying the piano, and that was a different story. At that point his father had jobs that kept him away from home from morning until late at night. "It meant that I could make enough progress while he was away that, instead of discouraging words, he'd say, 'Well, my boy, that's pretty good.' That's why I'm a pianist," he says.

Johansen's first musical hero was Ignaz Friedman, whom he heard in a recital in Copenhagen. "It was colossal," he says. "Now, years later, when I hear his recordings, I understand why. He had an individuality like nobody else—nobody plays like Friedman."

He auditioned for the Polish pianist one summer day when he was twelve after some friends had discovered the cottage in the woods where Fried-
man practiced. "He was most friendly," Johansen recalls, "and he allowed me to play for him. But he was about to leave Denmark, and he suggested I study with his best student, Victor Schiöler." After making his Tivoli debut playing Liszt's E flat Piano Concerto, the boy prodigy went to Berlin for further study, at Schiöler's insistence.

Johansen came to the U.S. in 1929 and soon had a contract with NBC, a job that lasted until 1935. In 1938 his interest already swinging from the usual concert fare to the academic, he went to the University of Chicago to play a series of twelve recitals tracing piano literature from Frescobaldi to Stravinsky. Dr. Carl Bricken, about to take over as chairman of Wisconsin's School of Music, invited him to play the series in Madison. "That led to a step I have never regretted," Johansen notes soon after his retirement last summer. "I came to Wisconsin as artist-in-residence." It was a ground-breaking appointment, for Johansen thus became the first musical artist-in-residence in the country.

The Pro Arte Quartet joined him a year later: painter John Steuart Curry already was on campus. "It was no time at all," Johansen says, "before the large universities began to add artist residencies—quartets in particular, but composers and instrumentalists as well."

When he signed his initial contract with the university, he made sure that he would have the freedom to concertize. He would generally go to New York for one concert each year and return to Wisconsin to find that students had proudly packet the reviews onto the school's bulletin board. Even then he was well into the academic side of music, and the touring, once a vital part of his life, didn't last. But he credits the university's schedule for making it possible for him to engage in his specialized activity: "I was never overburdened with students, so I could grow musically. And in the last years, my schedule took me to the campus only one day a week." That day included Music in Performance, consistently the most popular course in the School of Music, averaging more than seven hundred students.

As a result of the freedom allowed him, Johansen probably has more recordings on the market than any other solo instrumentalist. They're not sold in stores, but by mail on his own Artist Direct label (c/o Johansen, Blue Mounds, Wisconsin 53517). He admits he does not have a repertoire: "I just do composers wholesale, from beginning to end."

This concept has been the basis of his life's work, his recordings of "completes": Bach's clavier works with forty-three discs; Busoni's piano works, with seven; and Liszt's original pieces for keyboard, which he expects will be finished in the next year or so, with an estimated fifty. (The new Schwann Artist Issue also credits Johansen with recordings of Fauré's complete piano music that really were made by Grant Johannesen, with whom he often is confused.) He calls his project, going on since 1955, "my legacy for the future," and he compares his work, resulting in his recordings, to that of an author whose thesis and research result in a book.

The "completes" idea was born at WHA, the University of Wisconsin radio station, beginning with Beethoven in 1946. He continued with Mozart and Schubert in the next two years, and Chopin in 1949, the centennial of his death, before digging into Bach between 1950 and '53 in commemoration of the bicentennial of his death. It was during this time that he conceived the idea of the recording project. He started taping the programs at home, because it was more convenient. "I had played my way through the Bach once," Johansen says. "Why not again and record it for posterity?"

He knew no commercial company at that time would consider such a project, so he set up a subscription service with thirty-five subscribers, including the major libraries in the U.S. He has always served as his own recording engineer, has had the discs custom-stamped, and sent them out. He still takes orders for the Bach as well as the later Busoni and Liszt—at the same price, $6.00.

Johansen has been a prime force in the revivals of interest in both Busoni and Liszt. When at the age of fourteen he went to Berlin, soon after World War I, he had hoped to study with Busoni. But by then Busoni had given up teaching in favor of composing, so the young Dane studied instead with Egon Petri, a former Busoni student. Years later, incidentally, Busoni's widow heard Johansen in concert and commented on how much his playing reminded her of her husband's. "It was the greatest compliment she could have paid me," he says.

Since Petri died in 1962 Johansen has considered himself the chief interpreter of Busoni. In addition to the seven recordings encompassing all the composer's mature keyboard works, he played the New York premiere of the piano concerto and an all-Busoni recital there in 1966, the Busoni centennial year.

Johansen's quest for the long-forgotten compositions of Liszt led him in 1967 to an East Berlin attic, where he found all seventy-seven volumes of first editions that had been gathered by Busoni, also a champion of Liszt. "There they were"—he still gets excited talking about the find—"on three or four shelves of that dusty attic. After three hours there I felt I had carborundum around my lips, but I had in my hands what I couldn't find anywhere else, the Mogyar Dallok [Hungarian national melodies], the first stage in Liszt's development of the Hungarian Rhapsodies." In a series of Madison lecture-recitals a few years ago, he traced the development of the dallok to the rhapsodiak.
If Johansen seems to have a special fondness for Liszt, it is partly because he feels the composer has been misunderstood and partly because he has had a lifetime of association with the music, beginning with his debut at Tivoli. "Liszt never has enjoyed first rank in the pantheon of great composers. The fascination has always been centered on the man rather than the composer," he says. "Liszt's output is absolutely bottomless. We know about 5% of his works. And I hear these warhorses played brilliantly, as fast as the hands can go, forgetting the music that's in them entirely. That's not Liszt."

Johansen set out to record all the original compositions for piano because he believes "they're all worthy, and they haven't been heard." These recordings, referred to in Europe as the Wisconsin Project, do not include the opera fantasies. "To do them, so that every scrap of music would be covered, as in the Bach, might take another six or seven years," he asserts. He wants to get on with other things.

By last summer thirty Liszt recordings were being circulated, and before he left for his seacoast ranch in northern California in July, Johansen had completed the taping of the forty-eighth album in the series.

White-haired now, a distinguished-looking man who is trim of figure, Johansen has many interests. A composer too, he has to his credit about four hundred sonatas, a few written down and most of them on tape. They are improvisational pieces, "sound pieces," illustrating the original meaning of the word "sonata." He also has composed forty-one Psalms of David for piano. He looks to Leonardo da Vinci as his intellectual model and helped found the Leonardo Academy, an association of scholars who get together intermittently for conferences on scientific problems. He takes time to study and ponder the problems of the world, from ecology and overpopulation to nuclear fusion, and he has an uncommon knowledge of technology, including experimental automobiles and airplanes still on the drawing board.

Ask this gentle man with the soft Scandinavian accent where he places himself among performing pianists, and his answer is a delighted "in the woods." He loves it there, where the whispering maples and oaks are his closest neighbors, where a raccoon might stop by for a meal and the deer roam through the night, where his daily outing with the chain saw keeps him fit, and where there's security from all the interruptions of the city. In the woods, yes; out of touch, no.

Johansen: The Recordings
by David Dubal

Before I encountered Gunnar Johansen in the manner described below, all I knew of him were a casual hearing of two of his Busoni discs and his stunning last-minute substitution with the Philadelphia Orchestra in 1969. I knew too that he was at work recording massive amounts of Franz Liszt that I had promised myself to look into but never did. I had no idea that he had already committed to forty-three LPs the complete keyboard works of Bach.

As program director of New York City's WNCN-FM, I am host of a daily Musical Offering program. In April I started a series on Liszt that was to consist of sixty broadcasts. After the first week, Johansen recordings began appearing, hand-delivered to the station at 7:00 each morning, one at a time. The donor's name was John Anderson, but I couldn't find a phone listing for him to thank him. As I auditioned the records, I gradually became convinced that this was some of the greatest Liszt playing ever captured on records, and soon my audiences knew it too. Delighted calls and letters came to the station asking to know more about this pianistic phenomenon.

When I had received thirty-seven albums, I asked, during a program, "If Mr. Anderson is listening today, would you please come to the station and appear on these programs in order to discuss Mr. Johansen?" John Anderson came the next day. He is a young playwright, a man of immense energy and warmth, who plays the piano himself and who looks enraptured when Johansen's recordings are being played. He has known Johan-
Johansen stems from the line of Liszt and Busoni, philosophical musicians who believed that to master the language of art one must first nurture the soul. Among Liszt, Busoni, Egon Petri, and Johansen a bond exists, for all these men viewed life and art as a totality.

I have now heard ten of Johansen’s Bach recordings (Artist Direct 1-20). His Bach playing is hardly of the so-called “objective” brand, but is full-bodied and throbbing with life. The allemandes of the partitas seem to me the most purely expressive playing of these dances that I have ever heard. Most of the music is played on a double keyboard piano invented by Emanuel Moor. Johansen finds this instrument (with coupling pedal, yet with the timbre of a piano) the most satisfactory means of rendering Bach’s terrace dynamics. In such works as the Italian Concerto, where a piano is always a failure, he uses the harpsichord.

The quality that I most admire in Johansen’s performances is an unerring ability to catch hold of totally convincing tempos, an achievement that alone requires much study and reflection. Meditation and reflection certainly have gone into these performances: They are permeated with Bach’s all-encompassing humanity.

Liszt is the last of the major Romantic masters to be thoroughly explored. Johansen’s LPs (Artist Direct 1-28) are an encyclopedia where one can discover the greatest experimental composer of the nineteenth century. The pianist infuses each work with a strong conception and lays great emphasis on the harmonic tensions. He always makes us aware of Liszt’s potent originality, especially so in the later works such as Unstern, which shows the composer as a herald of the twentieth century. Johansen’s playing is simply astonishing. He captures every nuance of the composer—the melting lyricism of the late miniature En rêve, the Faustian rumblings of the B minor Sonata, the eroticism, the sardonic humor in the Mephisto Waltzes, the histrionics.

Johansen is a titanic virtuoso with lightning reflexes. His grasp of chordal masses is wonderful. His approach to the piano is one of fearlessness: witness the “Wilde Jagd,” the eighth Transcendental Etude. Yet one of his most endearing qualities is a compelling elegant sweetness: Hearing his “Ricordanza” one is nostalgically reminded of Busoni’s phrase “a packet of yellowed love letters.” Once you have become familiar with Johansen’s playing, you will not mistake it for another’s. It should be added that his liner notes are a valuable contribution to the Liszt literature.

The technical quality of these recordings is not first-class. A few splices here and there are slightly detectable, and occasionally the sound is a bit cloudy. But we have something very special: a man who, on his own initiative, works quietly and patiently year after year, always adding to his achievements. Even now, Gunnar Johansen’s playing remains vital and young.
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Nielsen Crashes the Operatic Catalogue

The over-all mastery of Saul and David is impressively projected in Unicorn's Danish Radio performance under Jascha Horenstein.

CARL NIELSEN WROTE only two operas: Saul and David, with an Old Testament-based libretto by Einar Christiansen, was completed in 1901; Maskarade, based on a comedy by Ludvig Holberg, followed five years later. Both are major works, and it is astonishing that it has taken until 1976 for either to find its way into the commercial catalogues. And even that wouldn't have happened if not for the obstinacy of Unicorn's managing director John Goldsmith and the cooperation of Danish Radio.

Saul and David is in four acts, all but the first of which have orchestral introductions. Act I sets forth King Saul's desperation over Israel's precarious military position and his high-handed usurpation of the prophet Samuel's provenance for sacrificial prayer. (In those days, you might say the threat to separation of church and state came from the other side.) Humiliated by Samuel in rebuke, the king becomes depressed and quite needful of the soothing companionship of the shepherd David, who also falls in love with his daughter Michal. Act II covers Saul's growing pride in, and later jealousy of, David as the Israeli populace shifts its greatest admiration toward the latter for his defeat of Goliath (an event not portrayed on-stage). Act III is set in a mountainous encampment, where have fled David, Michal, and Saul's son Jonathan. When an opportunity arises for David to kill Saul in vengeance for his banishment, the shepherd spares the aging king. A joyous reconciliation occurs, but this proves short-lived when the dying prophet Samuel reappears and forecasts the passing of the crown to David. In Act IV, Saul and his entourage consult the Witch of Endor, who brings back the spirit of Samuel. The latter has even more dire predictions this time, which come true in the following scene, a frightful battle with the Philistines in which Saul and Jonathan are killed. David is proclaimed king.

The plot clearly seethes with the opportunity for character evocation, pageantry, and atmosphere. Saul, obviously the central and most complex figure, is an intriguing psychological paradox: regal and stern in his authority, yet cowed by the symbols of theistic power; trusting and quick in his tender response to the musical blandishments of the harp-strumming shepherd, yet prone to equally capricious fits of wild jealousy and rage; confident enough at one moment to risk offending God's earthly representative, but frankly paranoid about the giant-killer who aspires to be his son-in-law.

Nielsen has cast this conflictual and volatile role for a dark basso who must rant in anger, declaim in majesty, and cower in fear. These emotions are conveyed fully in the music, but somehow (in contrast to Mussorgsky's depiction of a monarch in doubt of his throne's legitimacy) I think Nielsen fails to communicate as well Saul's affectionate nature—toward either his real or adopted children—or even the depth of his melancholy. It is particularly in the representation of the love between the older and younger men (i.e., David's serenades to Saul, which close the first act and open the second) that he seems at a loss and thus passes too quickly over what could have been a great lyrical opportunity.

On the other hand, David's ringing tenor along with the lofty and pure soprano sound of Michal are exploited fully to fashion a love duet that glows with bright, clear-eyed ecstasy in the most optimistic and melodically haunting fashion. Even the brother/sister (Jonathan/Michal) duet of Act III is a deeply poignant and warmly caressing high spot of the score. Jonathan (a tenor) has much sweet and ardent
music to sing, but Samuel falls short of what the role could have been, by dint of insufficient distinction in musical character from Saul. This stiff-necked proponent of orthodox form over substance does emerge, however, as a more likable character than religious fundamentalists ought to be. In the Act IV seance, though, he rises from the crypt with something less than Commendatore stature, leaving our greatest sympathies with the Witch of Endor.

The chorus, representing the people of Israel, reacts continuously to the fast-moving events and seems especially responsive to the mood swings of the king. (One gathers it has nourished him through a few such episodes before.) The battle scene of the last act is a vivid depiction of pandemonium and horror. The Act II rejoicing over the miracle wrought seems especially responsive to the mood swings of the character is, however, altogether another story, and in this regard Christoff follows the agonies of Saul's inner struggles with matchless perception. Certainly, Frans Anderson (with Jensen), if a more idiomatized Nielsen singer, couldn't begin to suggest the dimensions of character as well as Christoff does. The rest of the cast is acceptable, though the Jensen performances have unmatched attributes not only to the Danish language, but also to Nielsen's Jonathan, more plangently sung than Hartmann's, and the greater sonic effectiveness of Samuel's ghostly appearance.

Any divergencies in the 1972 cast are nicely unified by the consistent, clearly proportioned, and pliantly sensitive leadership of Jascha Horenstein, a longtime Nielsen champion whose many admirers will be pleased to have, however belatedly, a recording of a major operatic effort under his direction. (Horenstein fans should also be aware that Unicorn has issued a 1972 Danish Radio Brahms Second and reissued the 1928 Berlin Philharmonic Bruckner Seventh, and that Vanguard plans to issue the 1967 EMI Tchaikovsky Pathetique on Everyman.) The Danish Radio orchestra reminds us here what an outstanding and undervalued ensemble it is, the fire, discipline, and beauty of sound are worthy of high admiration. Joel Lazar's inserts (done later presumably to correct fluffs in the actual concert performance) are undetectable, so well do they fit in the total musical and acoustical context. Nor have I any complaints about the work of the John Alldis Choir, the recording balances, or the splendidly designed album and booklet. Unicorn's pressing, like the Copenhagen studio audience, is respectfully silent.

To my over-all praise of this Saul and David (whatever my criticisms) let me simply add that Maskarade, still unavailable, is an equal if very different joy to discover.

**Nielsen: Saul and David (sung in English).**

Michal
Elizabeth Soderstrom (s)  
Abisha
Boyd Gobel (s)  
Witch of Endor
Sylva Fisher (s)  
Young Girl
Kirsten Buhr-Moller (s)  
David
Alexander Young (t)  
Guard
Samuel
Michael Langton (bs)  
Moses
Abigail
Willy Hartmann (t)  
Jonathan
Kim Burg (bs)  
Saul
Boris Christoff (bs)  
Samuel
Joel Lazar (bs)  
John Alldis Choir, Danish Radio Chorus and Symphony Orchestra, Jascba Horenstein, cond. (with some retakes cond. by Joel Lazar). [Bob Auger and Danish Radio, prod.]. UNICORN 343/5, $23.94 (three discs, manual sequence) [based on the European Broadcast Union performance of March 27, 1972] (distributed by HNH Distributors, Box 222, Evanston, Ill. 60204).
A scene from the Australian Ballet's production of The Merry Widow

by R. D. Darrell

Consider for a moment, if you will, the enormous popularity, on records and off, of the Offenbach-Rosenthal G léte Parisienne, the nearly as wide appeal of the Strauss-Dorati Graduation Ball, and that won in former years by the Strauss-Desormière Beau Danube, Scarlatti-Tommasini Good-Humored Ladies, Boccherini-Francaix Scuola di Ballo, Handel-Beecham Love in Bath, etc. Then figure out, if you can, why there aren't more such immediately appetizing works of the same general kind—one that might better be named ballet-metamorphoses or ballets trouvés than (the unfortunately pejorative-sounding) "synthetic" ballets.

I, for one, can't find any reasonable explanation why some of these works have been neglected of late by the recording companies, but I must concede that the infrequency of new additions to the genre obviously results from the current lack of arrangers/composers as gifted as Rosenthal, Dorati, et al. What an unexpected triple delight it is, then, to get a tar-too-belated resurrection of Desormiere's Straussian masterpiece, plus a welcome if less distinctive new metamorphosis of Strauss family music, Bal de Vienne, by the talented British arranger/orchestrator Douglas Gamley; plus for brimming good measure, a brand-new major example of the genre combining the intoxicating music of Lehár with the editing and scoring expertise of the far more imaginative British arranger/conductor John Lanchbery.

Balletomanes will recognize that name from its association with the Royal Ballet Company in England and, more recently, the Australian Ballet Company, which commissioned and first performed the Merry Widow Ballet. Discophiles will remember Lanchbery from several earlier ballet recordings, most notably his ingeniously contrived film score for the anthropomorphic fantasy Peter Rabbit and Tales of Beatrix Potter (Angel S 36789, October 1971), which I'm afraid never has become as well known as it should be, perhaps because it has been buried in the "Musical Shows Etc." title-only listings in Schwann—i.e. a fate to be shared by Lanchbery's Merry Widow. No one who relished that earlier score and its idiomatic balletic performance will be really surprised, but for everyone else the present metamorphosis of Lehár's operetta to sure-fire hit ballet will be a rapturous surprise. Why did no one think of this before?

No matter. It's all to the good that the trick had to wait for so adept a showman/arranger as Lanchbery—and for as timely an occasion as the American visit of the Australian Ballet Company, during which Dame Margot Fonteyn was scheduled to star in the Merry Widow Ballet.

This recorded version of Merry Widow, probably only slightly trimmed down (only Nos. 12, 15, and 17 are omitted entirely), is obviously destined for as lively discographic success as that of the full staged work in concert. Lanchbery milks the resplendent ultraromantic music of every last drop of its period-piece nostalgia and intoxicating voluptuousness. Only a puritan to whom all tonal sensuality and theatrical plush are anathema will be able to resist. And while the Adelaide Symphony isn't the most polished or refined orchestra, it plays seductively and is recorded with supercharged brilliance. (Curiously, though this is not billed as an SQ disc, it has magical stage presence in quadriphonic playback.)

The London disc pales only beside the novelty of the new Lehár-Lanchbery triumph. It brings back at last the Beau Danube ballet long famous as the starring vehicle of Danilova. Musically, it warrants—even if it seldom has won—as much favor as Graduation Ball, especially when played with such balletic grace and recorded with such gleaming warmth as it is here. Welcome, too, is Bonynge's gemütlich Fledermaus Overture (especially after one has most recently heard this music in the Bernstein/Columbia and Karajan/Angel near-brutalizations), even if it is included primarily to introduce another new ballet-metamorphosis: Gamley's Bal de Vienne substitute for the Act II ballet (Ballroom Scene) of Die Fledermaus. It's a deftly effective pastiche of mostly unfamiliar Strauss family waltzes and polkas. These materials are helpfully identified in the jacket notes; but, inexplicably, there is no such itemization of the Beau Danube's Straussian sources.


Caruso cum Computer

Soundstream's digital reprocessings produce some conspicuous improvements in sixteen of the most familiar Caruso recordings.

Nothing on the jacket front of RCA's new "Legendary Performer" disc devoted to Caruso suggests it to be anything other than one more reshuffling of "Caruso's Greatest Hits" (as they were called last time around). On the back, after noting the oh-so-familiar titles, the prospective purchaser will find a note explaining that these recordings have been reprocessed in a new and rather special way, and this is in fact the news here, although RCA seems surprisingly reticent about it. Surprisingly, for these are, after all, the wonderful folks who brought you Dynagroove, one of the noisier events in the history of promoting recorded sound. In that grand tradition, this might have been billed as "Caruso Computerized" or "Caruso Revitalized"—but it's just called "Caruso." You'd almost think somebody was nervous about the new technique.*

No need to be—certainly not on the part of the company that for the last twenty-five years has been dribbling forth clumsily doctored, inaccurately pitched LP dubbings of the Caruso legacy. Unlike those previous efforts (not to mention the over-dubbed orchestral accompaniments of the early Thirties), the Soundstream Caruso reprocessings are the offshoot of sophisticated scientific inquiry into a generalized problem of signal processings, and the results are startlingly different from any "improvements" so far achieved by electronic filtering and reverberating techniques.

A necessarily simplified description of the Soundstream process was offered in last month's issue, and the fundamental thrust of its working can be clearly heard in the first band of the new disc, if you have on hand (and who doesn't?) an earlier version of the inevitable "Vesti la giubba." At this session, the recording horn appears to have resonated to Caruso's E (the first note of the aria proper, and frequently prominent, since it is the tonic note). On conventional dubbings from the original discs, this note, especially when the tenor hits it with some force, has a distinguishing "ring" that makes it stick out. In the Soundstream version, this is absent—most strikingly, perhaps, in Caruso's downward portamento on "lo spasmo ed il pianto," which in the original "rings" momentarily as it crosses that E but proceeds without blemish in the new processing. (From a paper by Dr. Thomas Stockham, the new method's originator, I infer that what actually "rings" is probably the first overtone, an octave above the sung pitch.)

But such details—of which there are many, and many less immediately obvious—are not really what one first notices, especially if one knows the Caruso originals well. (Many collectors must know them more or less by heart, and have long since mentally filtered out such inequalities.) Most striking, subjectively, is the sense that the voice is "nearer," that it has more "presence"—as if that horn were no longer between us and the singer. This is impressive, and a convincing initial argument in favor of the process. The voice seems solider, meatier, and above all more consistent, while still recognizably the same smooth, powerful tenor that we have known all our lives.

This impression of sameness may, of course, be strongly conditioned by the fact that this "new" Caruso does, in musical terms, everything in the identical way that the old one did. He phrases the same way, sobs in the same places, is sloppy about dotted rhythms in "La donna è mobile," takes long-arched phrases in one breath in "M'appari" (this is the lovely earlier version, not the labored 1917 remake), breaks phrases at most curious points in "Cefeste Aida" (the final version of 1911 is used), rushes the climactic phrase of the Carmen Flower Song, and breathes most alarmingly in the aria from La Juive (making one understand the perhaps apocryphal doctor who referred to Caruso as the most remarkable case of asthma he had ever heard).

Also immediately noticeable is a steady but not distracting rumble, evidently the consequence of "an empirically determined bass boost characteristic" inserted to obtain "a better balanced sound," and the relative absence of surface noise. In fact, the only surface noise we hear is in the middle register (and rarely troublesome), for Stockham and his associates are convinced, from the analysis of these records, that they contain no signal "much below 200 Hz or above 4,000 Hz." Thus, although they believe that

*This is not entirely true of shrink-wrapped commercial copies, which, unlike the review copy, bear a sticker calling attention to some new technical process. However, except for that sticker (an afterthought!), the Caruso disc is indistinguishable from the simultaneously released Mario Lanza "Legendary Performer" reissue.—Ed.
such surface noise is not the major problem with the sound of old records, they have eliminated all sounds outside that range. This runs counter to a lot of thinking about the playback of old records among collectors (myself included), as Stockholm is well aware, and he offers several theories about why we have subjectively found wide-band playback of acoustic originals to be superior:

"It is better for the ear to hear something in any band of frequencies than nothing at all. The surface noise which does extend into these frequencies is modulated by the singing and thus provides a kind of artificial high-frequency structure. Small amounts of non-linear distortion create harmonic components in these regions that enhance the listening experience."

He then adds, "The curious phenomenon is that the restorations which we have produced contain no sensible energies in these frequency bands and yet are almost always judged superior to a high-quality acoustic original reproduced in the simple wide-band manner."

I agree with this last statement, and the whole matter certainly gives us all something to think about. (Unarguable, however, in my opinion, is the superiority of wide-band playback to the gating filters that RCA has used in the past, where surface noise is heard only in conjunction with the louder vocal sounds and thus becomes an apparent timbral component of the voice; this practice defeats our ears' natural filtering systems.)

Impressive as all this is, it would be foolish to utter all-embracing conclusions on the basis of the present evidence. Stockholm has pointed to one questionable assumption, that their "prototype" modern recording (in the case of "Vesti la giubba," an unspecified Bjoerling recording) is statistically equivalent to Caruso's singing; how different would the results be if a recording by Martinelli, Domingo, or Corelli had been used? (In fact, whom did they use as a "prototype" for the selections on this disc that Bjoerling didn't record—the Handel and Halevy titles?) I'd like to know why one of these reprocessings ("Una furtiva lagrima") comes out sounding somewhat muffled by comparison with all the others. And I'd like to hear more, especially other singers—for example, Ponselle, who recorded some of the same selections (e.g., the Aida arias) by both acoustic and electric means, within a very few years. Only with a considerable body of evidence will it be possible to arrive at some definitive evaluation of the contribution that digital reprocessing can make to our appreciation of older recordings.

I have to add that nothing in the present disc has led me to modify previous opinions about these particular recordings. I still find the earlier ones superior both interpretively and vocally (the 1911 "Una furtiva lagrima" is vulgar by comparison with the 1904 one, for example), though the reprocessings are undeniably easier on the ears. And in this last may lie their major significance: not to ingrained collectors who have mastered the art of "listening through" the limitations of older records, but to new listeners who have not ever made the effort. In this connection, though, one is sorry to note that the elaborate book-let, with many pictures and a biographical note by Francis Robinson, tells much about Caruso but not a jot about the words he is singing, the dramatic situations he is trying to communicate. That, after all, is what Caruso was all about—not his fees or his fans, his costumes or his arrest in the Monkey House. Surely one is entitled to expect this much in a premium-priced record.

Finally, since the boys at RCA are such past masters at the art of selling the same thing over and over again: If the Soundstream reprocessings become generally accepted and they undertake to sell us all of Caruso all over again, let us hope they will do it this time in an orderly and systematic way, not in another quarter-century of drabs and overlapping drabs.

**Enrico Caruso: Legendary Performer. Enrico Caruso, tenor, orchestral accompaniment. [John F. Pfister, a&r coordinator; Thomas G. Stockholm Jr., computer processing engineer.] RCA Red Seal CRM 1-1749, $7.98 (mono) [from Victor originals, 1906-20; digital restorations by Soundstream, Inc.].**


**The Met Tristan: Postscript**

Since completion of my review of the Metropolitan Opera broadcast recording of Tristan und Isolde (HF, October), it has been drawn to my attention by those better versed than I in pirated versions that proof exists that earlier, Bodanzky-led Met Tristans were in fact even more liberally cut than the Leinsdorf performance under review. I find that my incredulity survives the evidence.

I am also told that certain passages contained on the recording are not from the designated performance, but from an earlier one with the same principals. I will acknowledge that a case can be made in favor of such conflation when the artistic standard is improved thereby (though when a recording's value lies in large part in its character as a document, I think the argument is a weak one). But there is no defending the producer's failure to specify on the album cover and/or in the booklet, both of which clearly state a single date of origin.

Both these questions will be dealt with by David Hamilton in a detailed comparison of pirated Tristan recordings in a forthcoming issue of the Musical Newsletter, to which I direct the interested reader's attention.

Conrad L. Osborne
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Of the book's more than 700 pages, 610 are devoted to biographical entries—2,350 living singers, conductors, directors, designers, and administrators—giving background information (did you know that Nicola Ghiaulev has two children and is divorced?), debut date, fairly extensive lists of operas/roles undertaken, etc. Criteria for inclusion vary according to category, but they all relate to activity in the seasons 1971-72 through 1974-75 at 144 selected opera companies and festivals. A singer, for example, "must have sung at least five major roles with one or more of these companies" in that period. (Question: Is a singer who has sung five major roles badly more noteworthy than one who has done twenty minor ones well?) The other major section is a 62-page compendium of surveys of the 101 companies and festivals (from that magic 144) that responded.

The preface points out that "Who's Who in Opera presents more than one-quarter of a million facts." Given the magnitude of the undertaking (and remember that this is a first edition), it's not surprising that some of those facts aren't quite right or that there are puzzling omissions and inconsistencies. Our music editor, for example, has been heard muttering about the absence of baritone Raimund Herincx ("best Wotan around"), but some people are never satisfied.

The data on recordings are especially spotty. In theory, there should be a double dagger after each listed role (for a singer) or opera (for a conductor) that has been recorded; in practice, sometimes there is and sometimes there isn't. Jerome Hines has recorded so infrequently that it's a shame to deprive him of his Banquo; many operaphiles would be interested in knowing that Tamara Milashkina has recorded Tosca among other roles not indicated; etc. A number of recordings have been invented—e.g., a Bohm Freischutz, a Kempe Tannhäuser, a Gavazzeni Huguenots (the latter no doubt referring to the pirated La Scala performance). It appears that for many conductors somebody simply forgot about recordings: Would you believe that neither Herbert von Karajan, Georg Solti, Leonard Bernstein, Colin Davis, Georges Prêtre, nor Eugen Jochum has ever recorded a complete opera? Carlo Maria Giulini's listing includes the startling phrase: "On records only MOZART: Don Giovanni." (This is internally contradicted by the double dagger next to Verdi's Don Carlos, but there's also one for Trovatore.)

Oh well, this is the first edition, and most of those quarter-million facts are probably good ones that you won't find gathered in any other reference source. Given the scarcity of decent reference sources, this Who's Who should have a strong appeal to serious operaphiles as well as the professionals to whom it is obviously directed. Or at least to operaphiles with a loose $65.

(N.B. Composers and librettists are not included in Who's Who, in deference to various directory issues of the Central Opera Service's bulletin. The latest of these, a Directory of Operas and Publishers, is now available for $10 from the Central Opera Service, Metropolitan Opera, Lincoln Center, New York, N.Y. 10023.)

Haydn quartets. With London Records set to begin releasing the Aeolian Quartet's series of Haydn string quartets domestically on Stereophonic Treasury (the cycle is nearing completion in England on the Argo label), there are other signs of activity on the Haydn front. The Tokyo String Quartet has completed the six quartets of Op. 50 for Deutsche Grammophon (Nos. 1 and 2 were released in 1974); the Juilliard Quartet has been working on Op. 20 for Columbia; and the Medici Quartet has been recording Opp. 64 and 76 for EMI.

Concord futures. More Haydn is due, from the Concord Quartet, resident chamber ensemble at Dartmouth College. The quartet is scheduled to devote part of the New Hampshire winter to recording three Haydn and three Bartók quartets for Vox. Planned for the following year are the late Beethoven quartets.

Desmar (plus IPA). After its ambitious first offerings last year, Desmar has released three new recordings and brought out a batch of reissues from the International Piano Archive.

Bruckner simplified. "The Bruckner Problem Simplified," an updated version of the articles by Deryck Cooke originally printed in England's Musical Times, has now been published in pamphlet form by Musical Newsletter. Cooke considers all known editions of the Bruckner symphonies; by evaluating Bruckner's role in each and distinguishing between versions and editions (different editions may give substantially the same version), he reduces the legitimate performance options for each work to a comprehensible minimum. The pamphlet is available to subscribers ($12 for one year, $21 for two years) for $1.50, to nonsubscribers for $2.50, from Musical Newsletter, 654 Madison Ave., Suite 1703, New York, N.Y. 10021.
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Herbert von Karajan (top) and Rafael Kubelik

BEETHOVEN: Symphonies (9). Various orchestras, Rafael Kubelik, cond. [Rudolf We ner and Hans Weber, prod.] DEUTSCHE GRAMMOPHON 2740 155, $55.84 (eight discs, manual sequence).

Symphonies: No. 1, in C, Op. 21 (London Symphony Orchestra); No. 2, in D, Op. 36 (Concertgebouw Orchestra); No. 3, in E flat, Op. 55 (Eroica) (Berlin Philharmonic Orchestra); No. 4, in B flat, Op. 60 (Israel Philharmonic Orchestra); No. 5, in C minor, Op. 67 (Boston Symphony Orchestra); No. 6, in F, Op. 68 (Pastoral) (Orchestre de Paris); No. 7, in A, Op. 92 (Vienna Philharmonic Orchestra); No. 8, in F, Op. 93 (Cleveland Orchestra); No. 9, in D minor, Op. 125 (Helga Donath, soprano; Teresa Berganza, mezzo; Wieslaw Ochman, tenor; Thomas Stewart, baritone; Bavarian Radio Chorus and Symphony Orchestra).

Beethoven: Symphonies (9). Overtures: Coriolan, Op. 62; Leonore No. 3, Op. 72b; Egmont, Op. 84. Elisabeth Schwarzkopf, soprano; Marga Hol- gen, alto; Ernst Häfli ger, tenor; Otto Edelmann, bass-baritone; Vienna Singverein (all in Symphony No. 9); Philharmonia Orchestra; Herbert von Karajan, cond. [Walter Legge, prod.] EMI ODEON SLS 5053, $27 85 (seven discs, rechanneled—except Symphony No. 8, stereo) [from ANGEL originals, 1953–56] (distributed by Peters International).

Deutsche Grammophon, with two Beethoven symphony cycles in its catalogue—Karajan’s 1963 Berlin remake and Böhm’s 1972 Vienna series—has come up with a new approach: nine different orchestras, all except one, recorded on home ground. Without suggesting that the orchestras are equal, I can report that Rafael Kubelik and the DG crew have managed a consistently excellent technical standard with regard to both orchestral discipline and engineering. The first two movements of No. 1 have a fleetness and mercurial flexibility that remind me of Toscanini’s old BBC Symphony recording. The remaining movements are somewhat cautious, but the minuet is sufficiently rhythmic and the finale comes off with lightness and dancing grace. The London Symphony plays capably but inevitably sounds comparatively edgy and un-subtle alongside Amsterdam’s superbly suave Concertgebouw Orchestra, heard in No. 2. Kubelik’s reading has a natural melodic suppleness (he does particularly well with the vamping Alberti passages in the Larghetto), but the totality is just a shade shapeless. The Eroica, played beautifully by the Berlin Philharmonic (lovely expressive details abound), tends to lose impetus and concentration. The moderate pace tends to slacken at each new episode. The orchestra sounds cleaner and less woolly than on many previous Berlin Philharmonic recordings (though the bass is shade deficient), but my attention wandered.

One of the happiest surprises in the set is No. 4, surely the best recording the Israel Philharmonic has made. The relative crudeness of the winds is less bothersome than it has often been, and the fiery, albeit slightly monochromatic strings are of first-rate virtuoso class. Interestingly, this is the one recording not made on home ground; it was taped in Munich while the orchestra was on tour. It would be interesting to see whether the DG people can master the problematical Tel Aviv recording site—no one else has.) Kubelik’s vernal, impetuous, fleetly lyrical, smiling reading gives no evidence of those rhythmic problems. This is a Fourth very much in the vintage Toscanini tradition.

The Boston Symphony gives a glossy account of itself in No. 5, but this is a studious, at times lumbering traversal of music that must be all molten lava and bubbling turmoil. Kubelik allows hardly any leeway in the opening fermatas but engages in ex-cessive Luftpausen later on. His No. 7 re-

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Classical

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- Historical
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minds me of the first Klemperer recording. The tempos are slow, the Vienna Philharmonic ensemble tone full-throated and massive, the rhythms well sprung. While I prefer a more impetuous approach to the work, lyricism and dramatic thrust are in good balance here. No. 8 has a broad, singing clarity and impressive registration of bass drum and tuba. Cleveland Orchestra retains the punctiliousness familiar from Szell's recordings but adds to that warmth and long-breathed melodic utterance (the horns in the third movement trio are particularly beautiful).

For No. 9, Kubelik chose to work on home ground, and his Bavarian Radio Symphony emphatically returns the compliment. Some might think his interpretation of this mighty work a trace muscle-bound, but for all the slow tempos and rhetorical modification, this Ninth has real shape and design, touching sincerity and communicativeness, if not quite the interpretive distinction of the last Munich version. Kempe's with the Philharmonic (in Sera-phim SH 6903, August 1976). Among the soloists, Thomas Stewart's opening recitativo sounds fractionally strained and offpitch. But Donath and Teresa Berganza are excellent. A few quibbles must be made: The contratassoon in the alla marcia lacks the proper beer-hall weight and flavor, and Kubelik occasionally seems embarrassed by some of the flagrantly dramatic moments. His "Vor Gott" dimax is rather small scaled, and both the alla marcia and the strings leading to the final peroration are begun prematurely and a bit unassertively. And though the reproduction is excellent as a whole (indeed, this is probably the best-recorded of all Ninths), the Bavarian brass sometimes lacks weight and cutting edge.

Kubelik takes all repeats in Nos. 1, 2, 4, 5, and 8 and follows tradition in the others (save for an extra scherzo repeat in No. 7). In contrast to the nine-orchestra Kubelik sirach Karajan's first. Beethoven cycle was one of the first true cycles, recorded with one orchestra over a relatively short period of time. EMI's new reissue reminds us of the unblemished excellence of Walter Legge's original Philharmonia: With virtuoso playing in all departments, it was a perfect realization, this Ninth has real substance and shape, and a kind of特有的 dramas which the other interpretations lack. In this respect, it is more incisively played and compactly reproduced. I have always liked the Karajan/Berlin Pastoral and find this one even more attractive. It has the same swiftly flowing classicism, but here the lack of sentimentality is tempered by greater expansiveness of phrase.

The Ninth is beautifully controlled but a shade glossy and impersonal, especially in the Adagio. Although this was the latest recording of the set, it is in many ways the most disappointing. Balance is acceptable, but the tonal characteristics are rather drab and muffled; the weight heard in the other performances is curiously missing.

All repeats are omitted save for those in the scherzos, the finale of No. 1, and the first movements of Nos. 5 and 8.

Karajan's Leonore No. 3 is effective in a theatrical way, but he tortures the lyrical second subject of Coriolan and drags the introduction and "Victory Symphony" conclusion to Egonmt.

On the whole, though, the EMI set — splendidly remastered — is wonderful value for its modest price.

H.G.

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**BACH:** Violin Partita No. 2; Sonata No. 3. Chung. LONDON CS 6940, Oct.

**BEETHOVEN:** Sonatas Nos. 31, 32. Graftman. COLUMBIA M 33890, Sept.

**BEETHOVEN:** Symphonies (9). Kempe. SÉRAPHIM SH 6903 (8), Aug.

**BEETHOVEN:** Triple Concerto. Suk, Chuchro, Panenka. MASUR. SUPERPHON 11 10 1558, Oct.

**BEETHOVEN:** Violin Concerto. Suk; BOUVARD EVERYMAN SRV 353 3D, Oct.

**BEETHOVEN:** Violin Sonatas (10). Suk, Panenka. SUPERPHON 1 11 0561 / 5 (5), Oct.


**DEBUSSY:** Estudes. Jaques. NONESUCH H 71322, Oct.

**DUKAS:** Symphony; Sorcerer's Apprentice. Welker. LONDON CS 6995, Sept.

**FALSA:** Three-Cornered Hat (complete); Harpsichord Concerto. DeGaetani, Kipnis, Boulez. COLUMBIA M 33970, Aug.


**HANDEL:** Messiah. Leppard. RCA RED SEAL CRL 3-1426 (3), Sept.

**IVES:** Barber: String Quartets. Cleveland Qt. RCA RED SEAL ARL 1-1599, Oct.

**IVES:** Songs. DeGaetani, Kalish. NONESUCH H 71325, Aug.

**MOZART:** Canons and Songs. Berlin Soloists, Knothe. PHILIPS 6500 917, Sept.


**SCARLATTI, A.:** Madrigals. Jürgens. ARCHIV 2533 300, Aug.

**SCHUBERT:** String Quartets, Nos. 9, 13. Berg Qt. TELEFUNKEN 6 41882, Aug.

**STRAUSS, J.:** Waltzes. Fiedler. LONDON PHASE-4 SPC 21144, Aug.

**STRAVINSKY:** Oedipus Rex. Cocteau, Stravinsky. ODYSSEY Y 33879, Sept.

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**VERDI:** II Corsaro. Gardelli. PHILIPS 6700 096 (2), Sept.

**VERDI:** Luisa Miller. MAAg. LONDON OSA 13114 (3), Sept.

**VIVALDI:** Gloria, Kyrie, Credo. CORO 3 RCA GOLD SEAL AGL 1-1340, Aug.

**WAGNER:** Meistersinger. Furtwangler. EMI ODEON 1C 181 01797/801 (5), Sept.

**WALTON:** Facade. Randall, Fiedler. COLUMBIA M 33980, Sept.
tize those points of critical juncture, to make the pieces cohere in terms of ebull and flow rather than steady drive, of flux rather than static rigidity.

The results could sometimes be wayward, but in his best performances (among which this one belongs, though with certain qualifications) there is no slackness, for each modification of tempo is firmly made and maintained (in contrast to, for example, a good deal of Barbirolli's work). And a sense of proportion and destination rules: he does not pull back for the climactic brass theme in the coda of this symphony's final movement, as does Mengelberg, which is momentarily stunning and yet surely undercuts the total effect of the coda.

It won't do to pigeonhole Furtwangler's Brahms in terms such as "personal" or "romantic," for those rubrics equally describe Barbirolli and Mengelberg, and Furtwangler was quite without the structural carelessness of either (let alone the technical sloppiness of the former, the emotional sloppiness of the latter—whatever compensating virtues they may have offered). And his methods of preparation, though they did not always yield overwhelming exactitude of execution, usually drew from the orchestra an exceptional spontaneity and rhythmic alertness.

This, the third Furtwangler recording of the Brahms First to circulate publicly, may not be the best played or most evenly recorded of the lot, but it is certainly the most exciting. The 1947 Vienna studio recording (in a set of the symphonies, EMI Odeon 1C 147 50306/9, or as a single, 1C 049 01145) suffers from the occasional interruption of continuity where a tempo was not precisely maintained over a 78 side break, and in the final pages it doesn't muster quite the same hair-raising energy as the live performances. The March 7, 1952, Turin performance (Rocco 2017) has some of the excitement, but also some really lamentable playing by the RA1 orchestra and downright poor recorded sound; it's difficult to understand why this was thought worth issuing.

DG's new offering, a Berlin performance that took place only a month before the Turin one, is patently the same interpretation, but executed with a stride and vigor (if also something short of perfection in ensemble and detail) that gives it a quite different aspect. Characteristically free in matters of tempo, it is illogical only in the third movement, where Furtwangler seems on this occasion to have misjudged, with too many tempos for such a short piece. (It comes out quite satisfactorily in the other recordings.) The phrasing of the second movement is expansive and illuminating—especially in the sequential approach to the recapitulation, which arrives only after one of those cliff-hanging fermatas on the timpani roll that doubtless worked better in the hall than it does on disc. (The balancing of the return to the Viennese version, for the winds' theme, as so often, is overwhelmed by the soaring string counterpoint.) The Berlin wind soloists are, unfortunately, not on a level with their Vienna colleagues.

Thus neither the EMI nor the DG presents Furtwangler's performance in its "ideal" form, which must, rather, be inferred from them both: the former better played and tonally balanced, the latter more characteristic of the conductor's willingness to take risks—often, but not always, successful ones.

D.H.

**Bruckner: Requiem in D minor.** Herrad Wehrung, soprano; Hildegard Launich, mezzo; Friedreich Metzer, tenor; Gunter Reich, bass; Laubacher Kantorei, Werner Keltisch Instrumental Ensemble, Hans Michael Beuerle, cond. NONESUCH H 71327, $3.96.

Comparison: Schönzel/London Phil. (in the Benedictus) shines forth with more rounded luminosity on Nonesuch. None- sucht's bargain price is partly offset by the absence of a filler (the Requiem runs only thirty-six minutes). Unicorn fills out the second side with the only current version of the 1862 Four Orchestral Pieces.

Now, on to the 1852 Magnificat and the 1854 Missa Solemnis, please.

A.C.

**Chopin:** Fantasy—See Tchaikovsky: Concerto for Piano and Orchestra, No. 1.


**Chopin:** Preludes (24), Op. 28. Maurizio Pollini, piano. [Rainer Brock, prod.] DEUTSCHE GRAMMOPHON 2530 550, $7.98.


Comparison: Arrau

Phl 6500 622

The Perahia and Pollini accounts of the Chopin Op. 28 preludes are contenders at the very highest level. The two young virtuosos have in common pianistic equipment and musical sensibility of transcendental order, and both have a special temperamental affinity for Chopin—an aristocratic, refined approach that stresses the composer's classical and poetic aspects.

Perahia, though, is occasionally more willing to take risks, while Pollini often gives the impression of having meticulously planned how he wants each phrase to sound. At the opposite end of the interpretative spectrum, Arrau goes all out for grandly monumental declamation. The frequent deliberation and rhetorical manipulation of rhythm will not appeal to all
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tastes, but his infusions of personality are born of the deepest sincerity and artistic impulses, in sharp contrast to many pianists who mail this music. All three artists serve notice of their basic approaches in the opening C major Prelude: Perahia may sound somewhat aloof, but his economy must be heard in the context of the Op. 28 cycle; Arrau is rich and massively expansive; Pollini strikes what seems to me a perfect compromise.

Not surprisingly, each comes out ahead in individual preludes. Pollini's C sharp minor (No. 10)—inflected and aristocratic, the smooth descending passagework shaped with nobly declamative rubato—is the best I have heard. (By comparison Perahia sounds matter-of-fact, Arrau cumbersome.) Like Perahia (and unlike Arrau), Pollini plays the E flat (No. 19) lightly, but his resourceful pedaling sustains the line better. Pollini builds a huge central climax in the D flat (No. 15, the so-called Raindrop) and employs a fascinating fluctuating voicing of the repeated-note accompaniment; he also adds a wonderful touch at the end, treating the return of the first idea as a pale reminiscence. The famous little A major (No. 7) is done most unusually: Pollini shapes the semplice phrases grandly, sharpening the dotted notes, waiting a fraction longer at the ends of paragraphs (as distinct from phrases), and going straight into the climatic chord where most players hesitate sententiously. (Perahia's more intimate, jewel-like account has much the same purity and distinction.)

Perahia gets just the right flowing momentum in the A flat (No. 17), though Pollini scores a big point near the end with an unusually delicate treatment of the droning pedal-point bass line. (Arrau is too bass-heavy in this prelude.) Perahia has a slight edge in the bravura G sharp minor (No. 12) and B flat minor (No. 16) and a bigger margin in the suicidal F minor (No. 18), where he succeeds better than any other artist I have heard in suggesting that the final crescendo begins before the penultimate silence has concluded. Arrau in turn triumphs in the culminating D minor, by virtue of his incomparably golden, solid sonority. All three are wonderfully polyphonic in their handling of the various voices of the F sharp minor (No. 8), which all too often run together in scrambled confusion.

Both Arrau and Perahia include the two extra preludes, Op. 45 and Op. posth. Perahia's account of the great F sharp minor, Op. 45, is less rich and satisfying than Arrau's. And while Perahia's disc is cheaper than the Philips and DG imports, it is also less impressively recorded. (An advance acetate had a rounded, velvety quality that somehow disappeared in Columbia's finished pressing.)

Alicia de Larrocha is a marvelous pianist, but Chopin has often been problematic for her. Her preludes seem less carefully analyzed than those just discussed, relying instead on "traditional" gestures: delayed downbeats, caesuras, juxtaposition of reverse accents with explosions. In the end the ostensible spontaneity becomes utterly predictable. Note how the A major lingers in sentimentality, lacking the chaste line of Pollini and Perahia, or how the bass, melody line, and swirling right-hand filigree of the F sharp minor, so impressively managed by Pollini, Perahia, and Arrau, run together chaotically. The A minor (No. 2) and E minor (No. 4) are oppressively expansive and unfocused: the D major (No. 5) is petulant and fidgety.

In the encore Berceuse, De Larrocha has the irritating habit of waiting for the downbeat before each phrase, the poor baby, instead of being lulled to sleep, must wait uncertainly for the cradle to come down again. London's piano reproduction is rather soggy, with a fierce quality to the louder dynamics.

Two textual notes to the preludes: In the E major (No. 9), Pollini, Perahia, and James Tocco (Acacia 101) follow a variant that attaches the right-hand sixteenth notes to the third of the accompanimental triplets, thereby sharpening the distinction between dotted and double-dotted notes. Pollini is the most convincing. And in the third measure of the C minor (No. 20), Perahia and Arrau opt for the E flat, Pollini and De Larrocha for E natural.

H.G.

Francois Duchable, born in 1952 and Paris-trained, is obviously a skilled pianist, with a feathery touch and immaculate spacing of fingers. But he seems to care little for the structure of these epic pieces, preferring instead to tease the line, ritard the end of...
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practically every phrase, and in general cause the music to droop and wilt. In the absence of any sense of basic rhythm, speedups (as at the end of the first section and at the conclusion of the E major Scherzo) are scarcely more effective than slowdowns. In addition, there is a feeling of insufficient tonal weight, perhaps attributable to the rather distant, reverberant microphoning.

Connoisseur Society's own recording of the scherzos by Antonio Barbosa (CS 2071, March 1975) is so fine that one wonders what prompted the release of this Pathé-derived disc hard on its heels.

H.G.

**D.C. COPLAND** - Appalachian Spring; A Lincoln Portrait; El Salon Mexico
- Melvyn Douglass, speaker
- Boston Symphony Orchestra
- Serge Koussevitzky, cond
- [Peter Delheim, reissue prod.] RCA VICTROLA AVM 1-1739, $3.98 (mono) [from RCA Victor originals, recorded 1945, 1946, and 1938]

That Serge Koussevitzky was a great proponent of Aaron Copland's music is not to be doubted, nor that the growth of a strong native musical culture was significantly advanced by Koussevitzky's advocacy. But the proposition that he was a great interpreter of Copland is less tenable, on the evidence of these recordings. The performances are competent enough, and in details the solos of the great orchestra can be very convincing (I am particularly fond of the E-flat clarinet solo at No. 27 in El Salon, with its saucy appoggiaturas and adventurous glissando; to my knowledge, this has never been equaled on subsequent recordings). But there isn't a lot of lift and swing in the fast music; the preacher in Appalachian Spring moves with a rather heavy tread, and at one point speeds up unaccountably (perhaps this was a side change in the original material?). In this score, too, the orchestra lets us down in the quiet opening pages with a series of minor but exposed bumbles, and there is a cut (between rehearsal numbers 35 and 37). In the Lincoln Portrait, Lincoln's lines are set forth very stably by Melvyn Douglas; rhetoric is, I think, one thing this piece doesn't need any more of.

So, by all means, let us honor Koussevitzky—but not with these recordings, for there are many more idiomatic modern versions in the catalogue (notably those of Bernstein and of Copland himself), which are better engineered and thus do more justice to the finely wrought scoring.

D.H.

**D.C. DEBUSSY** - Quartet for Strings, in G minor, Op. 10
- RAVEL - Quartet for Strings, in F. Parthenia Quartet
- Connoisseur Society CS 2103, $8.98

**Comparisons:**
- RCA ARL 1-0167
- Col. M 30650
- DG 2520 235

This EMI-derived disc is the currently available Debussy/Ravel coupling by a French quartet and, as such, doubtless has automatic interest. From my familiarity with virtually all such couplings issued over the years, I am unable to say deci-
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GRIEG: Orchestral Works. For a review, see page 118.

Haydn: Mass No. 5—See Mozart. Mass in C.


Pelléas et Mélisande is the really serious work here, evoking the profound heartbreak of Maeterlinck’s drama in a manner uniquely Faure’s, though no less eloquent than Debussy’s. Dolly, orchestrated by Henri Rabaub from Faure’s piano-duet original, is transparently light, jolly, and tuneful, serious only in the nostalgic reminiscence (in “Le Jardin de Dolly”) of the composer’s Violin Sonata in A major. Masques et Bergamasques is more conservative in idiom, paying deliberate homage to eighteenth-century dance forms, except for an overture with a thoroughly Mozartean snap and trio. The three suites make an attractive LP (Angel offered the same program in mono in the Fifties, conducted by Georges Tzipine), and the belated Seraphim issue of this brilliant disc, released abroad in 1970, is welcome.

An earlier (though probably not much earlier) Baudo Pelléas is available on None such H 71178, coupled with the Ballade. Either version can be safely recommended (the Nonesuch is perhaps a bit faster and fresher), along with Ansermet’s lean and stylish one (London CS 6227), marred only by a somewhat deliberate “fileuse.” One of the great phonographic tragedies was RCA’s failure to record one of Munch’s incomparably thrilling and moving Boston Symphony performances, larger in scale and more flexible in pulse than his superbly atmospheric 78 recording with the London Philharmonic for English Decca, with the BSO producing lush sonorities and enormous climaxes. Munch is instead currently misrepresented by the Philadelphia stereo version (Odyssey Y 3107), in which the orchestra responded with technical brilliance and total aesthetic comprehension.

Baudo’s amiable Dolly has a bit less drive and thrust than Beecham’s (part of the “Bon Bons” collection, Seraphim S 60904), but the Orchestre de Paris outplays the Orchestre National, for which Sir Thomas had a puzzling fondness, and the newer engineering is substantially richer and more immediate. Baudo’s leisurely pacing of the Mozart (three discs, manual sequence) is more backbone than Beecham’s (part of the “Bon Bons” collection, Seraphim S 60084), but the newer engineering is substantially richer and more immediate. Baudo’s leisurely pacing of the Mozart (three discs, manual sequence) is more backbone than Beecham’s (part of the “Bon Bons” collection, Seraphim S 60084), but the newer engineering is substantially richer and more immediate.

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Haydn cycle is nearly complete in England (it lacks only the dozen quartets of Opp. 33 and 50 plus the little Op. 42 and The Seven Last Words), it's a shame that London has chosen to follow the English order of release. For this first set is quite representative. The performances are all competent, have a dispiriting chug-along quality, and the resonant engineering lacks adequate definition. (Curiously, of the six boxes so far released, this is the only one whose producer is not identified.)

Opp. 71 and 74 (which, like Opp. 54 and 55, are really a single set; Haydn separated them solely for commercial advantage) have not been generously recorded. The Griller Quartet has the right idea—lots of dash and flow—and is even more economical, with each threesome on a single disc, but the tone quality is drab, the intonation consistently off the mark. My recommendation, I'm afraid, is the most cumbrous. As Vox's Opp. 71 and 74 are split between two three-disc sets, the Deykin Quartet's Opp. 71 has more spirit than the Arion's and is technically far more satisfactory than the Griller's; the Fine Arts Quartet's Opp. 74 is even better, almost distinguished—though no match for the Alban Berg Quartet's Opp. 74, No. 3, with its hair-trigger precision, tonal polish, and finely judged balances. (The Berg Quartet disc, which includes the best Emperor I've heard, would be my first choice among all Haydn quartet records.) You do get fillers in the Vox Boxes: with Opp. 71, Op. 2, Nos. 1—4—delightful music, but all except No. 3 (actually a sextet with horns) will turn up in the Aeolian's early quartets box, using superior texts; with Opp. 74, all of Op. 3—not by Haydn, but well worth having (and not to be included in the Aeolian series, except possibly as an appendix).

Each stereo Treasury quartet box will contain an elaborate booklet akin to those accompanying the Dorati Haydn symphonies. Annotators for Opp. 71 and 74 are by H. C. Robbins Landon; for the remainder, Reginald Barrett-Ayres takes over. (Their new critical edition—not to be included in the Aeolian series, except possibly as an appendix).

That Vox is projecting a certain long-winded dullness I find in most Ibert works. The 1922 Escales (Ports of Call) is atypical of the composer, and, considering its date, it would have to be said that the work created the travelogue cliches with which it is riddled. Yet Escales has an appealing, cinematic atmosphere to it, whether in the lush, stringy, rather Spellbound-like theme of "Pom-Palerm," the serpentine eroticism of "Tunis-Nefta," or the occasionally Ravelian Hispanicism of "Valencia." Although this atmosphere can be (and frequently has been) overplayed, the late Jean Martinon went to almost the opposite extreme, giving an unusually austere interpretation that I find fairly inappropriate. Nor am I struck by any great commitment in the other performances here.

The recorded sound is quite good. And since Tropismes is certainly one of Ibert's best works, it should particularly entice listeners attracted by his other endeavors.

R.S.B.


Comparison—violin sonatas: Zuckofsky, Kalish Comparison—other works: Zuckofsky, Kalish et al. None HB 73025 Col. M 30230

That Vox is projecting a series of albums covering Ives's complete chamber music is welcome news indeed. Although almost everything in this category is already available on record, a number of the shorter pieces are scattered about on different discs; it will be good to have it all together in a single collection. Actually, this first volume does not add much in this regard, since roughly half of it consists of the compositions for violin and piano. Already obtainable on a two-record Nonesuch set; and the other pieces (with one exception) are included on Columbia's release of Ives's chamber music. Moreover, although the Vox performances are generally good, they are not, to my mind, up to the standard of these other discs.

The four violin sonatas and the Largo for violin and piano, performed by Millard Taylor and Frank Glazer, have much in their favor. The performances are warmer and more relaxed than those of Zuckofsky and Kalish, but they do lack the latter's more incisive rhythmic character and over-

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all musical excitement. In certain cases, as in the first movement of Sonata No. 3, Taylor and Glazer's approach seems particularly appropriate, but in general I prefer the more emphatic quality of the Nonexous set. The rousing close of Sonata No. 2's second movement provides an example: it never really reaches the proper level of intensity in the Vox version (the "bass drum" effect, incidentally, is omitted). And there are other irritations, such as the failure to mute the violin in the second movement of the First Sonata, which, in my opinion, completely destroys the character of the piece.

The other works also suffer in comparison with the readings on Columbia (again by Zukofsky and Kalish, among others). Most of these are short, "experimental" pieces with a peculiarly hard-edged quality that is largely missing in these new versions. Hal- l"ove'en, for example, begins faster than on the Columbia disc yet ends up slower. And since the version used here is the one with three repeats (the sense of gradual acceleration, so essential to the composition, is much less pronounced than in Columbia's two-repeat edition. The two Largo Risticlos and In re con moto et al. (all for piano quintet), which must be numbered among lives' most advanced conceptions, seem curiously domesticated. The more lyrical piano trio, on the other hand, is quite beautiful (although the fast middle movement again seems a bit tame), as is The Inane. The Three Quarter-Tone Pieces, not included on Columbia, are handsomely played by Glazer and Artur Balsam. Despite these reservations, I suspect that this is a set lives enthusiasts will want. The more contemplative quality of the performances may well be preferable to some listeners; in any event, one will at least have readings that reveal an essentially different conception of how this music should sound. Harvey E. Phillips's copious liner notes are interesting and informative. The recorded sound unfortunately lacks presence, no doubt contributing to the subdued character of the performances. R.P.M.


A selection of chansons, frottola, and dances lucidly performed by a mixed ensemble of voices and viols. Except for their matched tone and stylish phrasing. Erick Skeaping deserve special mention for their matched tone and stylish phrasing. The viols, and occasionally rebecs, are other irritations, such as the failure to mute the violin in the second movement of the First Sonata, which, in my opinion, completely destroys the character of the piece.

The lethally dispassionate "Romantic Collection" is, I'm afraid, an unmitigated failure. Rachmaninoff used to speak of "the point" in every work he played. Whether a thunderous cadence or an almost offhand utterance, it's precise judging decisively affected the entire shape, climax, and dramatic realization of the piece. Librinn's
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problem here is that "the point"—and every-thing else—sounds completely blunted. He shows little awareness of proportions and tempo relationships among sections, dynamic plateaus, and other complexities that give coherent shape and continuity. I have never heard the Chopin Barcarolle so listlessly and unintentionally, so unpregnant and indecisive; the nightingale in Granados' "Quejas o la Maja" sounds like a mechani-cal bird; the Ravel Pavane falls apart at the seams; Debussy's voluptuous L'Isle joyeuse sounds sullen and sexless. The Liszt Con-solation, Tchaikovsky "Song of the Lark," and Ravel Toccata are a bit better, but even the Rachmaninoff preludes, which one would expect to be ideally suited to this pi-anist, suffer from grooping, gesturesome rubato that fails to clarify phrases in any meaningful way.

This is Cliburn's worst recording to date.

H.G.

**MACDOWELL: Sonata for Piano, No. 2, in G minor, Op. 50 (Eroica); Woodland Sketches, Op. 51. Clive Lythgoe, piano. PHILIPS 9500 095, $7.98.**

Comparison—sonata:
Takahashi Orion ORS 75183

Before 1975 only two intrepid pianists, Perry O'Neill and Rudolph Ganz, had re-recorded MacDowell's Sonata Eroica, and their discs did not stay in the catalogue long. Last year Orion released a fine disc by Yoriko Takahashi of the Dartmouth Col-lege faculty (reviewed by Philip Hart in De-cember 1975) containing not only the Eroica, but the Norse Sonata as well. And now we have yet another recorded Eroica as performed by the English pianist Clive Lythgoe, who has been specializing in American music.

Despite the fine piano sound furnished by the Philips engineers, Takahashi holds a clear edge over Lythgoe in matters of inter-pretation. Lythgoe cannot resist the tem-petuous sentimentality, rather than to make too much use of tempo rubato. According to Mrs. MacDowell in 1914, "No one who studied for any length of time with Mr. MacDowell can fail to remember the incessant emphasis he laid on rhythm and the art of expressing musical feeling by means of color, rather than the incessant change of tempo and the abuse of the rubato. He detested the chopping into pieces, one might say, of a composition; of short rather than long phrases when the latter was so ob-viously demanded." Lythgoe does almost everything with the Eroica that Mrs. Mac-Dowell warns against. An indication of this is that it takes him more than twenty-seven minutes to get through the sonata, while Takahashi manages it—with more passion and poetry—in well under twenty-five.

As for the Woodland Sketches, the story is much the same. MacDowell was very meticulous in marking his music, and he was very careful to indicate every nuance he wanted. Lythgoe tends to give us just a little bit more than the composer asked for. However, he has no competition here. De-spite the great popularity of "To a Wild Rose" and "To a Water Lily," before Lythgoe no complete version has been available since the disappearance of the recordings by John Kirkpatrick (Columbia) Can it be that our sophisticated but unhappy times are ripe for a return to the hearty old-fashioned earthi-ness of Grieg? The Norwegian's war-horses have never been put out to pasture, of course, but most of his other works have been heard and re-corded less and less often in recent years. The Vox piano music, Vol. 1, of 1971 and the present Vox Box of orchestral works are the first multi-disc Grieg representations in a long, long time. Yet now they may find a new public response to an appeal that combines both nostalgia for ear-lier, more innocent musical enjoyment and craving for a bracingly salty-fresh—rather than hothouse or dustily academic—musical atmos-phere.

If this is so, Vox/Turnabout scarce-ly could have chosen more persu-asive evangelists than Abravanel and the Utah Symphony, not the most sophisticated interpreter or most virtuosic orchestra in today's record-world, to be sure, but fine musicians who not only obviously relish the spirit of health in Grieg's music, but make that relish irresistibly in-fectious. In general, these are happy-medium performances. In the piano concerto, Johannesen makes no at-tempt to emulate the uninhibited bravura of a Richter or Rubinstein, nor does he scale everything down to the pure lyricism of a Curzon; but he provides a robustly ringing, eloquently expressive, distinctively personal performance consistently held within the bounds of sure artis-tic restraint. Similarly, Abravanel's Sigurd Jorsalfar and Peer Gynt suites shrewdly aim midway be-tween the polished virtuosity of Karajan, Fiedler, et al., and the incomparable poetic insights of a Beecham or the native Norwegian Fjeldstad.

Anyway, the prime appeal here lies not only in the disarming straightforwardness of the playing, but in the enticing variety of works chosen and the evidence (so often unknown or ignored) that, for all Grieg's reputation as a master of small forms only, he still was capable of such a fine large-scaled work as the Old Norwegian Ro-mance with Variations for Large Or-chestra, which well warrants rank-ing with the Brahms-Haydn, Elgar Enigma, and Rachmaninoff-Paga-nini peaks of the variation repertory. And if everything in the program has been done before on records, too many of the best (like Beecham's Old Norwegian Romance and In Au-tumn Overture for Angel) have been allowed to go out of print, and none has ever before been recorded with such natural, vivid sonic tang in so authentic a big-hall ambience. The reverberance, especially in the Turn-about disc, may be almost too much for some home listeners, but it con-tributes significantly to the thrilling sound quality that gives these recordings such notable distinction even in stereo—only playback. In quadrophony (of the back channels ambience-only type), the still more expansive and airy sonics are even more impressive.

**GRIEG: Orchestral Works, Vol. 1. Utah Symphony Orchestra, Maurice Abravanel, cond. (Marc J. Aubort and Joanna Nickrenz, prod.; Vox QS86X 5140, $10.98 (three QS-encoded discs, manual sequence).**


by R. D. Darrell
Dual owners generally are more experienced than typical component owners. More than half have owned another brand. Usually they have spent more for records than all their audio equipment combined. Thus, they need no reminder that the turntable is the only component that handles the record. Or that to compromise with quality here can risk damage to their record collection.

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and Vivian Rivkin (Westminster). For all its faults, I do hope this disc will remain in the catalogue until something better comes along to supplant it.

MIMARGOGLU: To Kill a Sunrise*, La Ruche* Various vocalists, composed in the studios of the Columbia-Princeton Electronic Music Center. Jacques Wiederkehr, cello; Michel Verlet, harpsichord; Martin Joste, piano, composed in the studios of the Groupe de Recherches Musicales, ORTF (Paris).* Folkways FTO 33951, $7.98 (Quadradisc).


To Kill a Sunrise, subtitled "A Requiem for Those Shot in the Back," involves speakers and singers employing as text Che Guevara's letter on one of the writings of that revolutionary leader, poetry by Marco Antonio Flores, and prose by Mimargo- mulo himself. Not one word is intelligible, however, except during the course of a sort of spoken fugue wherein one voice after another comes in with the names of people killed by the National Guard and the dates of their killing. Among them are the names of the victims of the Kent State massacre. (Does it include the names of those killed by the Guevaristas? Hal?)

Despite the lack of verbal communica- tion, the score is most impressively, especially during a long passage obviously played by a quartet of gigantic, ominous clarinets, each at least four blocks long, and this leads into one of the most overwhelming—not to say shattering—climax ever recorded. Unlike so many com- posers involved with the Columbia-Prin- ceton Electronic Music Center, Mimargo- mulo is not content simply to experiment with electronic sound. He knows what he wants to do and does it.

La Ruche is named after a building in Paris in which, says Mimargo- mulo, eminent painters, musicians, and writers once had their studios. It is a lyrical, extremely colorful, even tuneful work, adding live performance on cello, harpsichord, and piano to the beautifully handled electronic sound. A fascinating record all round.

The second disc was produced by Mima- mulo, in his role as director of Finnadar, Atlantic's classical label. It contains six short works by six composers, all created in the studios of the Columbia-Princeton Electronic Music Center, following its predecessor, the Experimental Music Studio of Columbia University. The oldest composition is Vladimir Us- sachevsky's Piece for Tape Recorder, written in 1959; the latest is Alice Shields's Farewell to a Hill, composed in 1975.

The other four, by Milton Babbitt, Pril Smiley, Mar- mil Davidovsky and Bulent Arel, spread through the Sixties. They all indicate that Columbia-Prin- ceton hasn't changed much since it was founded. All use the same range of sounds—bell-like, gonglike, windlike, and, above ev- en, bell-like drones, hrrripp, hrrripp, hrrripp, usually in some sort of scalelike progress- ion. These effects are very beautiful, but the entire series of six compositions sug- gests that the medium is extremely limited. The work of Mimargo- mulo and other elec- tronic composers has amply demonstrated that it need not be. One subject, therefore, that the academic setting has made for cer- tain limitations of what is right and proper and what is not.

The works on the Finnadar disc are far more impressive as sheer sound than as constructions in musical form, although the formal element is heavily stressed in the jacket notes. A.F.

In quad: Playback of these discs in the quadrophonic rather than stereo mode adds immeasurably to the experience of each of these pieces—each, as one might expect, in a different way. While it is not at all clear what space is evoked by the four-channel sound field (where is this all supposed to be taking place, anyway?), the sonic illusion generated by quad dispels the "canned" sound that lingers over these synthesized pieces when reproduced via two channels. Even more so than for conventional music, quad brings things to life—or pseudo-life.

The experience is frightening. It is as if one has been struck blind in the mind's eye and carried by unknown forces through a space of unknown dimensions (not neces- sarily fixed). The electronic instruments and disembodied voices that flit about like witches on brooms. In To Kill a Sunrise, Mimargo- mulo, treating an already emotional subject, tosses the listener headlong into near vertigo. This, in its best moments, is heavy stuff, though marred somewhat by discs that, despite advanced mastering have more hiss, pops, clicks, and distortion than one cares to hear. Can we hope for pressing that is equal to the mastering? H.A.R.


It is gratifying to have more and more of Mozart's church music made available on recordings, for it cannot be often enough re- iterated that unless we know the large body of church music—Masses, Vespers, litanies, and so forth—our picture of this composer is lamentably one-sided. The Requiem, the best-known example of this art, is an ex-ceptional work. Far removed in character from the Neapolitan and Salzburg heritage that permeates the Little Organ Mass, it is never easy, but when in addition the or- chestra relentlessly develops a highly con- certante-symphonic "accompaniment" the difficulties are vastly increased. He cannot soft-pedal the orchestra (which is the tradi- tional strategy of the sound engineers in vo- cal-instrumental recordings), yet he must safeguard the vocal expression.

Karl Munchinger tries valiantly to do jus- tice to the demands of this peculiar con- struction in K. 167, but his efforts are con- siderably frustrated by the engineering. The choral sound is muddy, its thickness smearing the polyphonic passages. Nevertheless, there are some good passages, especially in the Benedictus and the Agnus Dei. The or- chestra is fine, and the organ commendably discrete; though the four trumpets are a little too much so—Salzburg church music was brassy.

As we turn over the disc the picture changes: Haydn takes over, and this arch- symphonist writes transparent, melodic vo- cal music. There are dramatic touches in the Little Organ Mass, but they are subdued. Haydn never strays from the flowing melody, and since here the part-writing is always limpid even in the contrapuntal sec- tions, the chorus is heard to advantage. The sound is better on this side as well. Elly Ameling sings with a sweet, accurate, and nicely inflected voice, while the organ gives an excellent image of the small instrument originally used, the whole being tastefully accompanied by the orchestra. Everything is held in an admirable do camera spirit, befitting the tiny chapel at Eisenstadt for
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which it was composed. The evanescent ending of the Agnus Dei is particularly beautiful in this interpretation. This is a very small Mass, but it is also a small gem.

P.H.L.

MOZART: Serenade No. 7, in D, K. 250 (Haffner); March in D, K. 249. Uto Ughi, violin; Staatskapelle Dresden, Edo de Waart, cond. Philips 6500 966, $7.98.

The oftener I hear the Haffner Serenade—whose bicentennial some of us celebrated last July along with another one—the more inexhaustible seem the revelations of imaginative genius in the truly heavenly lengths of its eight movements, which contain a miniature yet highly bravura violin concerto. And in this case there is no question of the pertinancy of the accompanying march, for the autograph manuscript of K. 249, like that of the serenade itself, is inscribed for the Haffner/Späth wedding for which the twenty-year-old Mozart wrote this incomparable music.

De Waart has now recorded four of the serenades, with Nos. 4 and 9 already available and No. 5 as yet unreleased domestically. The Haffner is no less well played (by a properly scaled-down orchestra) and no less sparklingly recorded than the earlier ones, but it represents a significant advance in the evidence of more truly Mozartian sensibilities in the interpretation itself. There are few moments of overemphasis, and if the reading is almost too easy-going at times, it is bracingly animated at others (as in the Allegro of the opening movement). Similarly, while soloist Uto Ughi is for my taste just a bit too sweetly expressive in his cantilenas, he is deftly finespun in his bravura passagework.

Over-all, I tend to give this version a slight edge over its closest competitor in American catalogues, the larger-scaled, often more insistent version by Bohm and the Berlin Philharmonic (DG 2530 290). R.D.D.

NIELSEN: Saul and David. For an essay review, see page 95.

RAVEL: Quartet for Strings—See Debussy: Quartet for Strings.


These releases complete Brendel's eight-disc survey of Schubert's piano works of 1822-26, and a mixed bag it is. Brendel has many of the ingredients of an ideal Schubert player: a cultivated sense for voicing, imaginative refinement in his soft playing, a basically cool, "classical" sound, linear clarity. And when he lets his virtuosity have its full head—as in the F minor and C major Impromptus, D. 935. No. 4, and D. 946. No. 3—the results can be bracing. Yet so often his playing is as notable for eccentricity as for wisdom or finesse.

Brendel's forte sound is extremely tight and brittle, and I strongly suspect that whatever legato he achieves comes from the sustaining pedal rather than his fingers. As a result, even when the sonority is agreeable to the ears, it lacks a central core and without breakdown into scenes or even numbers.

The idiom is conservative for a work composed during the mid-1930s; if you were to hear bits of it, you'd guess early Wagner or Strauss. The declamatory style of the narration, the likin for sparse higher winds and brass accompaniment, the infrequent use of massive tutti, could even suggest a twentieth-century retouching of a Schütz Passion, but the rhythms dominate, and there are some quite forceful and vivid bits of scene-painting—e.g., the war-bringing horseman of the Second Seal.

Apparently, there is something of a fannatical cult for this work in the German-speaking countries (or so the liner notes would suggest). Though I found it at times overwritten, and obviously rarely approaching the gaunt splendor of Dünner's or Bergman's treatment of the Apocalypse theme in other media, the oratorio is often very impressive and certainly worthy of disc representation.

The Amadeo recording here recirculated seems originally to have come out in mono only, though the stereo of the current issue sounds perfectly authentic. Unfortunately, the huge climaxes are a bit cramped, and more modern engineering would obviously have been a big help, as would a conductor with more theatrical flair than the merely conscientious Anton Lippe. Nobody, however, could possibly take the place of Julius Patzak in the role of St. John. The voice, to be sure, is old, crusty, and—well, sort of unglamorous, but the deep conviction, the sense of dark and foreboding meanings, the sheer charisma of the Patzak manner make the prospect of anyone else performing it all but unthinkable. The remaining soloists are serviceable, Otto Wiener perhaps less than that.

Complete texts and translations are provided, with appropriately devotional notes on behalf of composer and music.

A.C.
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Occasionally, a record is treasurable for several reasons, not least because it preserves a particular moment in the singer's career, the voice absolutely fresh, natural, and controlled, the singing of refreshing spontaneity and warmth. The presence of three fairly uncommon Schubert songs is also a welcome benefaction, for they are gorgeously sung, but then so is "Der Musensohn," and the Brahms songs, all familiar, are set forth with considerable power and passion. Right from the beginning, Janet Baker has known the secret of balancing word and tone, of keeping lung and voice in their proper places along the stream of sound, superbly bound together. The first recording of the Schumann Frauenliebe, too, displays all these virtues: it is in tune, straightforward, and giving.

The new recording embodies the same noble spirit, counterbalanced by two major disadvantages. Dame Janet seems not to have been in very good voice for these sessions, for she sings flat with disturbing frequency (especially in the earlier part of the great Op. 39 Liederkreis). And Daniel Barenboim, here for the first time, really misses the flair in his performance. I have recently had his accompaniments for Fischer-Dieskau by playing in excessively mannered fashion—some of the postludes, you have to think he has not heard the way Dame Janet had just sung the song, so curiously does he reinterpret the material. In the light of all this, I won't rehearse my old song-and-dance about transpositions and key relations in song cycles, except to note that ten years ago Dame Janet sang all of Frauenliebe down one tone, except for two songs (Nos. 3 and 4) in the original key; now she takes it all in the original key, except for two songs (Nos. 6 and 7) down one tone.

As one of this singer's greatest admirers, I'd rather this new record hadn't been issued—but I'm glad that the Saga disc is now widely available. I've been enjoying it for ten years now.

D.H.


Comparisons:
Kempe/Royal Phil. RCA LSC 2923
Kempe/Dresden State O. EMI Import (see below)

Except for the relatively early Muchaeth, the last of Strauss' tone poems, the so-called Alpine Symphony, is the least-often heard, on or off records, of the whole series. There's one good reason: the exorbitant personnel demands of this gargantuan score. Another reason, the onetime presupposition of well-nigh impossible performance difficulty, is no longer valid for any first-rate contemporary orchestra. But a third reason may still remain the decisive one: the critical consensus that by 1911-15, when this monumental musical travologue was composed, the Strassian inspiration either had dried up or was diverted to the stage works that by then had become the composer's primary concern.

In any case, the formidable size and complexity of the Alpine Symphony demand the full powers of current audio technology. No mono recording could begin to do this sonically fascinating score justice, not even the historically significant 1941 composer's version with the Bavarian State Orchestra, still listed as Seraphim 60006. And as the first-rate audio performances, by Kempe and the Royal Philharmonic, seemed powerfully impressive when it appeared c. 1967, it is handicapped by what now seem darksonicsonicsthat tend to exaggerate the rather grim seriousness of the reading itself. In marked contrast, the new Mehta version benefits by a more personalized, more romantically depictive approach, by a better orchestra (and organ), and most of all by even more powerful, vividly present, and detailed sonics. With or without any regard
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Perhaps the finest and most extensive modern Richard Strauss discography is Rudolf Kempe's series of the orchestral works. Ten discs in three volumes have been issued overseas, but of them only one (the Don Quixote with Tortelier) has appeared on the Angel label in this country. The present release comes from a projected Vol. 4 (concerted works), which may or may not have been completed before the conductor's death earlier this year.

These circumstances alone would give the discs special significance to everyone who has known and admired Kempe's matured Straussian skills and insights—surely as notable as any since those of Clemens Krauss. But since the su generis performances of the two horn concertos by Brain (Angel 35496) are 1954 mono recordings with less than ideal orchestral accompaniments, and since the good but scarcely ideal Tuckwell/Kertesz versions (London CS 6519) date back to 1968, there's genuine need for a new version that combines such merits as Peter Dannm's exceptionally poetic as well as skilful playing, Kempe's characteristically controlled yet eloquent Dresden orchestral performance, and robustly lucid state-of-the-art recorded sonics. (The latter also are given expanded auditorium authenticity in quadraphonic playback.)

Incidentally, the Dresden hornist, whom I've noted particularly before only as the eponymous soloist in the De Waart Mozart Posthorn Serenade for Philips, is sure to be heard from much more in the future. It's tragic that the same can't be said (except perhaps for some posthumous recordings) of Kempe. R.D.D.

Plate II: Cover of the First Edition of "Our Two Lives" by Halina Roszinski.

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Tallis was a country of Catholic monasteries to an old age amidst the modernities of Elizabethan Protestantism. All his life Tallis wrote music for the church, and this admirable new release gives a fair sampling of his output, from the towering Gaude gloriosum, an early work designed to result is very impressive from any point of view. A love responsory, Loquebantur variis linguis, two Latin hymns, another English anthem, Hear the voice, and the familiar but always beautiful first set of Latin motets round out the disc.

David Wulstan, a talented performer/musicologist active in England, leads his choir, the Clerkes of Oxenford, through the program with assurance. The group favors a straight white tone that is absolutely splendid for the complexities of the grander Latin motets, but that loses immediacy, it seems to me, in the simpler or more emotional settings. The spacious sound, too, is most effective in the bigger works, though perhaps simple stereo may not reflect all the facets of Spem in alium's eight choirs. Octophonic sound, anyone?

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Solomon

A patrician approach to Tchaikovsky

gear-shifting at transitions. Solomon fits in harmoniously; his playing, brilliant in execution, is slightly cold and reserved but, for all that, clearly heartfelt. His performance of the Chopin F minor Fantasy—recently included in a British set honoring the pianist's seventieth birthday in 1972—belies his reputation as a miniaturist. This is one of the most dynamic accounts of the work ever recorded. (Good, honest transfers.)

In the 1950 version of the Tchaikovsky concerto, Solomon's artistry remains substantially the same, but Issay Dobrowen's rather more straitlaced conducting produces an altogether different kind of performance. As a Tchaikovsky conductor, Dobrowen belonged to the school of Markovitch and Cantelli. He favored brisk, forward-pushing tempos, immense clarity of line (note how prominent woodwind details are in the finale), and a classically oriented strictness of rhythm that at the same time boasted a balletic plasticity of phrasing. The orchestral execution is as disciplined as Harty's or Toscanini's, but more suavely lyrical and without the well-known Toscanini ferocity. I hope that Dobrowen's excellent Fourth Symphony will also be revived. The LP transfer is excellent—there is a slight hump, but balance and presence are practically contemporary in sound quality, and the pressing is noiseless.

H. G.
time, offered—with X prefix—in all formats at reduced price.

The C major Serenade’s earnest sweetness makes it especially vulnerable to the "smoke" of Stokowski, who can take the form of slow tempos, massive weight, and/or marked use of portamento and vibrato. Bernstein is certainly slow, at least in the first and third movements, and the New York Philharmonic strings are massive, but the brink of sentimen
tuality is avoided through reasonably tasteful phrasing and bright, volatile acoustics. (And the Philharmonic strings may not have used portamento in the last forty years?) Stokowski, surprisingly, uses his symphonic weight ensemble with reasonable restraint. There is little swooping or sobbing, and the mixing leaves the crowd sounding no bigger than Marriner’s Academy of St. Martin-in-the-Fields (Argo ZRG 594). If Stokowski’s tempos are less grandiloquent than Bernstein’s, they are still de
cidedly cautious in the allegro movements. What really drops this performance under the baton of Bernstein is the pervasive underarticulation and rhythm.

I think the serenade works best in a technically limber, tonally "pure" performance by a chamber orchestra under a tastefull
tly flexible conductor, who respects Tchaikovsky’s generally moderate tempo indicate
tions. That describes the Marriner and Zin
man (Philips 6580 102) versions—the former deft, coolly refined, and lyric, the latter with a bit more ferocity and drama, but never overdone, and with breathtaking preci
cion from the Netherlands Chamber Or
chestra. Not quite in this class but still rec
commended is Harenhoin (Angel S 37045),
who gets away with some heartthrobbing
tonal juice by dint of mobile tempos and a
tonal "schmaltz" approach which can fake the form of slow tempos.

It is entirely possible to take interpretive liberties that, however controversial, il
Illumine the character and meaning of a work—as for example the highly individual
Mengelberg and Silvestri recordings of the Fourth Symphony, a work whose inherent rhetoric and hysteria can be exacerbated by conven
tional "manners." I am afraid that Bernstein’s conception falls pretty much in the "pointlessly mannered" cate
gory. The interpretation has changed little since his 1961 recording (which, in the way,
still sounds remarkably vivid). In the earlier recording, the pizzicato scherzo was more
deliberate, the slow-movement oboe solo oilier. But the basics remain the same: a
portentous treatment of the "fate" motif in the brass not only at the opening, but at the
theme’s return in the finale, where it in-volves a significant unmarked ritard: a striking lack of grace and point in the first
movement waltz episodes, a generally heavy treatment of the incoming slow
movement, without relief in the pizz section; a propensity throughout to antici-

Columbia’s sound is darkly imposing, with a good sense of vast spaces even in a
two-channel stereo, but the overall disci
pline and polish of the Philharmonics cur
rent playing leave much to be desired. A.C.

Symphony No. 4 in quad: Four-channel sound is not used at all adventurously in
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H. A. R.

ZELLER: Der Vogelhändler (excerpts).
The Electress Anneliese Rothenberger (s)
Christi Delia Litz (ms)
Baroness Adele Delia Litz (ms)
Adel Stolz (b)
Count Stanislaus Gerhard Unger (s)
Professor Suffie Jurgen Forster (b)
Professor Wurmchen Karl Donch (b)
Village Mayor Wolfgang Anheisser (b)
Baron Weips Walter Berry (bs-b)
Vienna Volksoper Chorus, Vienna Symphony Orchestra, Willi Boskovsky, cond. [Helmut Storjohann, prod.] ANGEL S 37165, $6.98 (SO-encoded disc).

No Austrian, perhaps no European, ever will understand why the operettas of Karl Zeller (1842-98) are not as popular among Americans as they are among listeners overseas. Yet except for an occasional album (or, in this country, a Querschnitt rather than complete version, available as an import, EMI Odeon 1C 193 30194/5Q)—shouldn’t be enough to deter anyone from denying himself the simple but lively enjoyment of Zeller’s finest music, performed with infectious relish by Boskovsky and an expert cast starring Renate Holm, Walter Berry, and a fine tenor, Adolf Dallapozza, heard as Alfred on Boskovsky’s Pfliegermus, in the title role. The vividly gleaming recording, too, is first-rate whether heard in stereo alone or in quadraphony’s enhancement of musical-theater ambience. The only complaints I have—of rather roughish disc surfaces and the choice of a Querschnitt rather than complete version (available as an import, EMI Odeon 1C 193 30194/5Q)—shouldn’t be enough to deter anyone from denying himself the simple but lively enjoyment of Zeller’s prodigal melodism. And (praise be) for once an excerpt-only disc is accompanied by full (German and English) texts. R. D. D.
The Technical Equalizer

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COLUMBIA-PRINCETON ELECTRONIC MUSIC CENTER: Electronic Works—See Mimaro-
 glu: To Kill a Sunrise.

PLACIDO DOMINGO: Be My Love. Placido Domi-
 ngo, tenor, London Symphony Orchestra,
 Karl-Heinz Loges and Marcel Peeters, cond.
 Siboney; Ay, ay, ay; Because, Be My Love;
 Marta; Ich schenke dir eine neue Welt; eight more.
 [Bobby Schmidt and Gunther Breest, prod.]
 DEUTSCHE GRAMMOPHON 2530 700, $7.98.

In a touchingly naive interview that provides
 the jacket copy for “Be My Love,”
 Placido Domingo expresses the hope that
 with this music he will be able to reach a
 new public and open up for it “the world of
 the opera.” I have my doubts. For one thing,
 the idea that the primary function of “light”
 music is to lead people to the promised land
 of “serious” music strikes me as not only
 highly dubious, but also confounding and,
 moreover, dreadfully out of date. A hangover
 from the 1930s, when Miliza Korjus
 in The Great Waltz—or Lily Pons in I
 Dream Too—made Gladys Swarthout in
 Champagne Waltz—was supposed to
 bring culture to the masses.

More important yet, Domingo isn’t in
 good voice. “Be My Love,” like so many of
 his recordings, catches him at a point of
 vocal exhaustion. Even a pop audience,
 I should imagine, is likely to be made uncom-
 fortably by the fact that on this record his
 lower voice is almost nonexistent (for ex-
 ample, the opening phrases of “Ay, ay, ay”
 and “Siboney.”) For those who already
 know versions of these songs by Távora,
 Wunderlich, Superba, Celia Schiba, Di
 Stefano, or even Arthur Tracey (the “Street
 Singer,” whose signature song was
 “Marta”), Domingo will, in addition, seem
 monochromatic. Almost everything here is
 overlaid, oververventilated, overassertive, and
 overwhelming—a factor after a while you feel
 trapped in the sheer pushiness of it all.
 The one exception is “Musiquita Linda,”
 which, because in this case Domingo allows
 himself some dynamic variety, is charming.

The arrangements, as you might imagine,
 are overblown. Most of them are the work of
 the two conductors, one of whom, Karl-
 Heinz Loges, has written a new song for Do-
 mingo. “Ich schenk dir eine neue Welt,” an
 unheugling pastiche of Stolz, Benatky, and
 the like, and not worse than the poison-
 ous “Because” or “Be My Love.” but it may
 be that I have done this record an injustice.
 Perhaps the only way to listen to it is over a
 car radio. No notes on the music, of course.
 No texts, either. D.S.H.

EARLY MUSIC QUARTET: Early Music. Early
 Music Quartet, Thomas Blinker, dir. TELE-
 FUNKEN 26 35067, $13.96 (two discs).

Fans of the Early Music Quartet, and I am
 one, will welcome this delightful two-disc
 sampler of music from four centuries and
eight different European cultures. As usual,
the group presents its own unique and ex-
citingly creative vision of medieval and Re-
naissance music, brightly colored by imagi-
native instrumentation and virtuoso
oration.

The singers and instrumentalists are un-
questionably at their best in the earlier rep-
erertoire, especially in the monophonic
works that give such fine opportunities for
an improvisational style. A twelfth- or
thirteenth-century estampie from Harley
5978 receives a brilliant scoring in which
the successions of plucked, bowed, and
wind instruments creates a cumulative ef-
fect akin to the works of the best nine-
teenth-century orchestrators without ever
 sounding unlikely for its time. In an
anonymous German tune, “Ich spring an
diesem riemen,” director Thomas Blinker
builds excitement by steadily increasing
the rhythmic pulse while the melodic vari-
ation becomes wilder and wilder. At the
other end of the spectrum, solitary and
unembellished, a version of the haunting
Flemish melody “Mij quam eyn hurt” for
soprano and flute will linger in your ears.

Other outstanding moments in this tour
of England, Flanders, France, Italy, Ger-
many, and Spain include a vividly dramatic
liturgical play relating the story of Samson,
a virtuoso rendition of coloratura fireworks
in Donato da Florentia’s fourteenth-cen-
tury “Come do lupo,” and a most elegantly
stylish version of the version of the “Street
Singer” which, because in this case Domingo allows
himself some dynamic variety, is charming.

The arrangements, as you might imagine,
are overblown. Most of them are the work of
the two conductors, one of whom, Karl-
Heinz Loges, has written a new song for Do-
mingo. “Ich schenk dir eine neue Welt,” an
unheugling pastiche of Stolz, Benatky, and
the like, and not worse than the poison-
ous “Because” or “Be My Love.” but it may
be that I have done this record an injustice.
Perhaps the only way to listen to it is over a
 car radio. No notes on the music, of course.
No texts, either. D.S.H.
Outstanding among the twenty wide-ranging selections are settings of three Elizabethan poems by Halsey Stevens, who is not especially noted for his contribution to the choral repertory. Another fine chorus, written in the antique style by Randall Thompson, is his "Felices ter." But if I had to choose the single most communicative piece, I'd probably vote for Ned Rorem's "Sing, My Soul," a very simply and naturally harmonized work. The music of John Chorbajian, a name previously unknown to me, I found surprisingly effective, and (of course) Samuel Barber's Reincarnations—which particularly "The Coolin"—still works its magic.

The King Chorale sings very well, and the selections on its first disc are very well chosen and effective. But prospective buyers should be warned that there is no way to figure out who wrote what from the liner notes. For that information, you must consult the label, which is itself inaccurate. I.L.


These performances, taped at a 1967 Library of Congress concert, are interesting on two counts: most importantly for the solo work of longtime Budapest Quartet violist Boris Kroyt (all three works make bravura demands far beyond the viola's "team" role in a string quartet), but also for the artistry of the then nineteen-year-old Murray Perahia, fresh from his first summer at Marlboro. (Perahia was a protegé of Murray Perahia; their plan to record the two Brahms sonatas was left unrealized when Kroyt died in 1969.)

While the sound has unexpected liveliness and generally acceptable balance considering the source, the performances are naturally less consistent and polished than they might have been under controlled studio conditions. By far the most successful achievements are the lovely, richly Romantic Bruch Pieces, which find all three gifted players at their inspired best, their lines intertwining with subtle give-and-take and exquisite beauty of tone. Kroyt's dark-hued, heroic viola tone contrasts interestingly with clarinetist Harold Wright's varicolored dynamic contrasts and silken legato. Perahia gives enlivening support—his phrasing of the galloping No. 7 is particularly incisive—and it would be hard to imagine more satisfying treatment of this material.

I have yet to encounter a totally memorable version of Mozart's "Kegelstadt" Trio; the work poses so many problems of tempo, style, and even text. The present account is at least intermittently distinctive. Perahia is a mite precious with some of his reverse accents and angelic understatement (his style has since become more forthright and robust!), but the playing is pianistically beautiful and takes a welcome solistic spurt in the finale. Wright, now the Boston Symphony's solo clarinet, is the ideal Mo-
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CIRCLE 43 ON READER-SERVICE CARD

The oldest work in the anthology is Norman Dello Joio's 1946 "A Jubilant Song" (from which the record takes its title); the youngest is Robert Cundick's "Let the whole creation cry," which dates from 1971. The Mormon Tabernacle Choir, led by Jerold D. Ottley, celebrates the Bicentennial by singing nine choral works, never recorded before, by American composers. The obvious model here is the Ormandy/Philadelphia "First Chair Encores" series, of which only Columbia MS 6977 of 1967 apparently still remains in print. But despite the Los Angeles orchestra's notable progress under Mehta, its first-desk soloists are not yet a full match for the Philadelphia, and the conductor himself seems disinterestedly routine in the Haydn and Vivaldi, overexpressive and vehement in the more Romantic display pieces overside. So, since the repertory choices are uneventprisingly confined to familiar "standards," played competently enough but without marked distinction, everything here is available elsewhere in preferred versions.

Even the disc's best feature, its glitteringly vivid recording, is overbalanced in favor of the close-up soloists. Of course characteristic well may heighten the release's attractions for the West Coast fans of the individual starred players. R.D.D.


The Mormon Tabernacle Choir sings Very well under Ottley, and the diction in this recording (which was very well engineered) is excellent. If this sort of material interests you, I'd urge that you buy your copy promptly. It is exactly the sort of thing that has a very short life span, and it would be foolhardy to predict that it will be available a year from now. I.L.

DON SMITHERS AND WILLIAM NEIL: Bach's Trumpet. Don Smithers, various trumpets and cornetto; William Neil, organ; Clarion Consort. PHILIPS 6500 925, $7.98. Tape: 7300 416, $7.95.

Musicologist Smithers (author of the 323-page Music and History of the Baroque Trumpet before 1721, Syracuse University Press, 1973) gives virtuoso Smithers a trumpet/organ program that's more interesting than many of its kind, even though he too has to depend in large part on arrangements. The program pleased and recorded, begins and ends with a scintillating Abblasen (call to attention) by Bach's favorite trumpeter, Gottfried Reiche (1667-1734), played on a replica of the "natural" coiled instrument shown in the Haussmann portrait of Reiche that is reproduced on the present disc jacket.

The same instrument is used in some of the main Bach selections, while a cornetto replica is chosen for a fascinating arrangement of the S. 659 organ chorale fantasia preceded by the unaccompanied chorale tune. Elsewhere, modern piccolo and regular B flat trumpets are used by Smithers in arrangements of the familiar Bist du bei mir and Jesu Joy of Man's Desiring. Two other trumpeters and a timpanist join in a couple of cantata's and oratorio excerpts with organ accompaniment. The organ itself, a modern British two-manual tracker-action instrument of appropriately baroque timbres, is heard alone in the S. 532 Prelude and Fugue in D—which of course has nothing to do with "Bach's Trumpet" but does give William Neil a good opportunity to display both the instrument and his own skill. Most rewarding of all are the chorale-tunes Vom Himmel hoch and Herzlich tut. heard first on an unaccompanied baroque violin or viola and then in three different Bachian settings, winding up with festive ones featuring three trumpets and timpani. R.D.D.
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Stomu Yamashta, Steve Winwood, and Michael Shrieve: Go. Stomu Yamashta, percussion and synthesizers; Steve Winwood, vocals and keyboards; Michael Shrieve, drum kit, Al DiMeola, guitar; Klaus Schulze, synthesizers; Rosko Gee, bass guitar. Solitude, Nature, Air Over, Man of Leo; Stellar, Crossing the Line; eight more. [Dennis McKay, Stomu Yamashta, and Paul Buckmaster, prod.] ISLAND ILPS 9387, $6.98.

These musicians are some of the most highly regarded in contemporary music from Japan, Germany, England, and America. At twenty-eight, Stomu Yamashta, the brilliant percussionist/composer steeped in the classical tradition (his father is director of the Kyoto Symphony Orchestra), has written seventy film scores, including Ken Russell’s The Devils and the David Bowie film The Man Who Fell to Earth; he has pioneered new ballet and theatrical works; his credentials alone could occupy more space than allotted here. Steve Winwood is the premiere British rock-and-roller and an outstanding guitarist and keyboard player, as well as one of the best singers rock has produced. Michael Shrieve is the inventive drummer who gained fame in the Santana band. Klaus Schulze is an innovative explorer of the synthesizer’s role in modern music. Al DiMeola is the brilliant young guitarist from Return to Forever. These men and their collaborators on this project have created one of the most interesting recordings of new music I’ve heard. It is, in that term dear to producers, a concept album. In fact, ‘Go’ is the musical plot for a possible multimedia expansion that will include dance, film, and music-as-theater. It is also a work that ambitiously attempts to coalesce the idioms of the serious modern music, rock, jazz, and electronics. Indeed, those elements are present in abundance.

In this context, rock certainly seems to have come a long way from its primitive beginnings, within the memory of most of us. What rock has needed is to be elevated from its simplistic roots by serious, accomplished musicians. The result is reciprocal, of course. The level of musicianship raises the level of the music, and vice versa. “Go” is experimental music in the same sense as Cage, Stockhausen, and Henze—or Weather Report and Return to Forever, if you will. It may not be entirely successful as an end product, but the experiment is valid, and I applaud the attempt.

J.G.

LINDA RONSTADT: Hasten Down the Wind. Linda Ronstadt, vocals; and instrumental accompaniment. Lose Again; The Tall Teller; If He’s Ever Near; That’ll Be the Day; Lo Siento mi vida; Hasten Down the Wind; Rivers of Babylon; Give One Heart; Try Me Again; Crazy; Down So Low; Someone to Lay Down Beside Me. [Peter Asher, prod.] Asylum TE 1072, $6.98. Tape: J.C. TCS 1072, $7.97; ETB 1072, $7.97.

Would only that beauty were enough. The photo of Linda Ronstadt on the cover of this new album will break male hearts from coast to coast. Yet what is inside is—well, dull.

It isn’t the music that’s dull. Mostly basic rock with slight country overtones, it is adept and often quite exciting. The problem is with Ronstadt herself. She can be very moving in her concert performances, but something about recording seems to put her off. She’s hardly the first female singer to have difficulty coming across on disc. Odetta, a most enthralling performer, seldom cut a convincing record.

In “Hasten Down the Wind,” Ronstadt runs through an interesting assortment of love songs, most of them little-known tunes written by others. Among the best of them are “Try Me Again,” written by Ronstadt with Andrew Gold, and Karla Bonoff’s “Lose Again.” A reading of the old Buddy Holly tune “That’ll Be the Day” contains the LP’s most moving vocal, which may prove a point; perhaps the lady needs standards, songs of proven excitement. Even on “Crazy,” a very basic, easy-to-grasp country song by Willie Nelson, she doesn’t project a decent amount of feeling.

It’s all rather sad, especially since Ronstadt delivers in concert. Maybe she doesn’t like recording studios. Maybe our tape technology hasn’t come quite as far as we like to think.

M.J.

AL JARREAU: Glow. Al Jarreau, vocals; Tom Canning, electric piano; Joe Correro and Larry Carlton, drums; Willie Felder, bass; strings and synthesizer accompaniment. Dale Oehler, arr., et al. Rainbow in Your Eyes; Your Song, Aqua De Beber; six more. [Al Schmitt and Tony LiPuma, prod.] REPRISE MS 2248, $6.98. Tape: M 52248, $7.97; M 82248, $7.97.

Explanation of symbols

exceptional recording

Recorded tape:
- Open Reel
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- Cassette
Al Jarreau has been steadily gaining recognition from jazz and soul enthusiasts alike since Warner Bros. released his first album, "We Got By," last year. While that recording was a suitable showcase for his vocal expertise, its relative inaccessibility deprived him of the chart success he deserved. "Glow" is a first-rate attempt at making his talents palatable to the pop audience at large. Much to the credit of producers Tony Lipuma and Al Schmitt, it succeeds in doing so without compromising either Jarreau's sense of honesty or his distinctive style.

Jarreau apparently realizes that a voice—however good it may be—is just the means to an end; he never lets his vocal gymnastics get in the way of a good song. For that reason, "Glow" is not the clinical exhibition of the art of singing that it could have been in the hands of a less tasteful performer. It is rather a collection of finely crafted interpretations arranged for the technically proficient voice of a sensitive, soulful singer.

Just how soulful Jarreau can be is demonstrated on his rendition of Elton John's classic piece of shlock, "Your Song." He almost makes one forget the vapidity of Bernie Taupin's lyric, and his restrained interaction with his band makes the John- vision sound computerized by comparison. The same holds true for Leon Russell's "Rainbow in Your Eyes" and James Taylor's "Fire and Rain."

It will probably take another album for the record-buying public to latch on to Al Jarreau—but when that happens, watch out. H.E.

Supercharge. Albie Donnelly, vocals, flute, and saxophones; Dave Irving, drums; Iain Bradshaw, keyboards; Les Karski and Ozzie Yue, vocals and guitars; Tony Dunmore, vocals and bass; Bob Robertson, vocals; Tony Dunmore, guitar; Donnelly and Robertson. 

Supercharge seeks to prove that white men, even British white men, can play like the blacks. It is rather a collection of finely crafted pieces, with a touch of the John vision sound computerized by comparison. The same holds true for Leon Russell's "Rainbow in Your Eyes" and James Taylor's "Fire and Rain."

It will probably take another album for the record-buying public to latch on to Al Jarreau—but when that happens, watch out. H.E.

Lauroindo Almeida is an artist of such magnitude that I cannot understand why the major record companies have ignored him in recent years. True, Capitol produced several exquisite albums with him in the 'Fifties; but in later years his abilities and his stature were squandered in a series of vapid flirtations with pop tunes and costalho bossa nova.

Even this album only begins to tap his profound artistry. One of its major attractions is that the entire second side is devoted to the musical of Radames Gnattali. Almeida is a guitarist who is at home in classical, pop, or jazz styles, but a special aspect of his vast talent is his knowledge and love of the music of his native Brazil. Indigenous Brazilian music—not unlike our own—hears European, African, and native influences that have developed in their own unique way. We are somewhat familiar with a smattering of this colorful music by virtue of the bossa-nova fad of a few years back and the international recognition of Heitor Villa-Lobos, the great classical composer.

The "Brazilian Popular Suite," a synthesis of the many moods, rhythms, and harmonic structures that are the nature of this music, gives us a broader view of it. Gnattali is a prolific composer and a teacher who counts among his pupils such luminaries as Antonio Carlos Jobim, João Gilberto, Luiz Bonfà, and Baden-Powell. Almeida's respect for the composer and his understanding of the music is clearly reflected in his ardent performance of the suite. Most of the other pieces are composed by Almeida himself; the exceptions are "Songs from Black Orpheus" and a brief "Improvont." This is an album of subtle music played by a master. J.G.

**JOHNNY & EDGAR WINTER: Together.** Johnny Winter, guitar and vocals; Edgar Winter, saxophone and vocals; Rick Derringer and Floyd Radford, guitars; Randy Jo Hobos, bass; Dan Hartman, piano; Richard Hughes and Chuck Ruff, drums. Harlim Shuffle: Soul Man; You've Lost That Lovin' Feelin'; Rock & Roll Medley. Let the Good Times Roll; Mercy, Mercy, Baby What You Want Me to Do. [Johnny and Edgar Winter, prod.] Blue Sky PZ 34033, $6.98. Tape: PZ 34033, $7.98.

Brothers Johnny and Edgar Winter have not appeared together in concert with any frequency, at least not since both developed their own successful careers. This album brings them together again.

Recorded live in concert in San Diego, the Winters provide a handful of popular rock and soul classics. With Johnny on guitar, Edgar on saxophone, and half a dozen expert rockers to back them up, such tunes as "Harlemn Shuffle," "Baby What You Want Me to Do." There is a long "Rock & Roll Medley" that includes snatches of 1950s tunes like "Slippin' and Slidin,'" "I'm Ready," "Blue Suede Shoes," and "Good Golly, Miss Molly." But the best moments come at the end, when, during a long, slow hour of music of Jimmy Reed's famous "Baby What You Want Me to Do." The improvisational talents of both musicians are allowed to run free.

M.J.

TIGER. Big Jim Sullivan, Nicky Moore, Les Walker, Ray Flacke, Phil Curtis, Billy Rankin, and Dave McCurrie, vocals and instruments. Lay Me, Ordinary Girl, Prayer, Livin' live more. [Big Jim Sullivan and Derek Lawrence, prod.] WARNER BRO S. 2940, $6.98.

If Tiger had a barely competent guitarist, it could take its place among the legions of competent rock bands currently doing the rounds. Break a single or two, and it could even achieve top-level stardom a la BTO, the Doobie Brothers, and a handful more of that ilk. Not very exciting, but then what merely competent Top 40 band is?

All of this is academic, because Tiger's guitarist isn't competent—he's brilliant. His name is Big Jim Sullivan, a legendary monster in British rockdom. He was the mainstay of the Tom Jones band (remember his talking guitar?), and even the supremely...
satisfy the hungriest rock-guitar fan. H.E. will make Tiger's next album a killer group of vocalists Nicky Moore and Les Walker and a little more inventiveness on the parts demand is nowhere to be found. The kind of interplay that Big Jim's solos stead to provide a solid base for his flights. little more than token solo spots, opting in-four instrumentalists behind Sullivan play from fear of intruding in the limelight, the more. Whether from lack of virtuosity or tarists. The rest of Tiger is good; nothing not common among even well-known gui-bines dazzling technique with taste, a feat his impressive laurels. On this disc, he com- 

Heavy rock is now ten years old. In the pop world, that is virtually geriatric. The raucous, give-em-hell form of rock started by Vanilla Fudge, Iron Butterfly, and other lumpen teenage ensembles has after a decade achieved familiarity, if not respect- ability. It is in the heavy-rock field that the most blatant abuses in pop music occur. I will never forget the night in a New York club when it was announced that "special guests" would perform. The guests were a "hot new rock group" that actually was made up of the road managers and hangers-on of a cold old rock group that was performing at the nightspot. It was a drunken joke. None of them knew how to play musi-
cal instruments. They made a great deal of noise, sweated, and mugged—and, need I say it, the audience loved them. The only one who caught the joke was Jimi Hendrix, who interrupted a fit of laughter long enough to threaten to toss a table at the players. Of course he would. Their music sounded so much like his own. The point of this anecdote is that rock audiences are extremely forgiving. When you're playing at 150 decibels, who really cares whether you're on key? 

Every few months down the pike comes another heavy-rock group—all waitage, torn T-shirts, and Mick Jagger pouts. Most of them aren't worth discussing. Starz, the most recent entry into the field, is quite a bit better than most. As with most heavy rock, melody and singing are subservient to emo-
tion and noise level, but the quintet plays with great elan. It puts extra emphasis on the guitarists, who play very well indeed. The credits do not say who plays what, which I take to be an affirmation of the heavy-rock credo that the only requirement is to get out there and raise the roof. I won't

50 Bucks for a Stuart Who Record?

STUART SCHARF is a distinguished New York musician with a lot of fish to fry in this life. Like many other Grade A studio musicians, he was a closet artist (singer/song-writer/arranger/guitarist) being system-
atically and profitably drained of individuality in support of other, often lesser, talents. Such is the na-
ture of the music industry. Some people are able to keep their native energy in the face of compromise. Scharf cannot, and the most positive factor about him is that he knows this and is not defeated by it. Somewhere on the mindless rounds of record and jingle dates, he got it into his head to present himself on his own terms. I'd have hated it if the music came

out tacky. Happily for all, "The Disguises Album" holds, and sometimes it flies. Scharf is a first-rate song-writer. "The Pilot Song" has hot, contained energy and this Scharf-ism: "A thousand people on their way to makin' the scene, they pass me by, they think I'm dreamin'. You don't have to turn 'em all on when you've found the one you need, she's my Pilot, yes indeed." "Truly Done" is beautifully crafted and warmly, truly done by the writer. "Goodbye" features pressing, emotional vocal leads by Maeretha Stewart, Leslie Miller, and William Eaton. "Makin' My Move" and "The W.P.A." capture the singsong charm and humor of Scharf. He is supported by the cream of New York's players and singers, including Roberta Flack, who never sounded more comforting than on "Lullabye.

"The Disguises Album" represents the best of what popular music has come to—no sleight of hand, no lies. It is cut of whole cloth and gets more comfort-
able. It is cut of whole cloth and gets more comfort-
able as one gets to know it. A recording that sticks to your ribs is always a bargain.  

STUART SCHARF RECORDING CLUB: The Disguises Album. Stuart Scharf, guitar, vocals, and songs, Stuart Scharf Recording Club, rhythm, horns, strings, and vocal accom-
painment. Truly Done; Soft and Gentle Rain; Makin' My Move; seven more. [Stuart Scharf and Bob Dorough, prod., in association with Roberta Flack.] LAISSEZ FAIRE 01, $50 (available from Scharf/ Dorough Ltd., 265 W. 20th St., New York, N.Y. 10011).

Why $50 for "The Disguises Album"?

This limited-edition recording was written, pro-
duced, and financed by Stuart Scharf and is owned by the Stuart Scharf Recording Club. He credits the graphic arts for his idea: The buyer gets the musical equivalent of a signed and numbered lithograph.

Only when you plunk down your $50 does Scharf's signature go on the label of one of the 1,250 copies. There are not several hundred signed albums stashed away waiting to be stolen or sold at half price. Scharf had complete control over the project from inspiration to sales, bypassing the Turks—corporate

STARZ, Peter Sweval, Richie Ranno, Michael Lee Smith, Joe X. Dube, and Brendan Harkin, vocals and instrumentalis. Boys in Action; Det-
roit Girls; Live Wire; Monkey Business; Night Crawler; Now I Can; Over and Over; Pull the Plug; She's Just a Fallen Angel; Tear It Down. [Jack Douglas, prod.] CAPITOL ST 11539, $5.98. Tape: 4XT 11539, $7.98. 4XT 11539, $7.98.
even bother to say which songs are highlights; they all sound more or less the same. What Starz has given us is what it was expected to—an LP's worth of havoc we can dance to. And a good job the group did of it.

M.J.

**GRAND FUNK:** Good Singin', Good Playin'. Mark Farner, guitar, vocals, and piano; Don Brewer, vocals, drums, and percussion; Mel Schacker, bass and vocals; Craig Frost, keyboards and vocals. Big Bugs. Just Couldn't Wait; Miss My Baby, eight more. [Frank Zappa, prod. MCA 2216, $6.98 Tape: E119 C 2216, $7.98; T 2216, $7.98]

Grand Funk's formula for its unique brand of drudge-rock wore thin about three years ago, so the group set out to find a producer to give its music a fresh kick.

Todd Rundgren was the first choice. His masterful, meticulous work did little more than highlight the band's glaring lack of technique, although his gimmicky remake of the Little Eva hit "The Loco-motion" almost smacks of being a fad.

"Good Singin', Good Playin'," is not Grand Funk's best LP by a long shot, though it is certainly one of its most amusing. Instead of taking his corny pseudo-political stance for the umpteenth time, Zappa coaxes Farner into extolling the virtues of big buns. Not a producer to tamper with tradition, above-passable musicianship is nowhere to be found. Zappa has done the best he can for the arrangement of "Out to Get You." The prevailing tone of lunacy throughout this album goes far toward energizing Funk's leaden sound, but Zappa would have an easier time trying to save a drowning elephant with a life preserver. The few tunes that have a hint of melody ("Crossfire"), however, do fare well.

Grand Funk can write no better and play no better now than a year ago, but Zappa must be credited with making it easier to swallow.

H.E.

---

executives who customarily determine what is recorded—bypassing the promo men, and shunning payola. Because of this control, he feels he was able to avoid "lapses of taste." This is his way of describing the built-in ripoff factor in current pop-album merchandising: Put two or three quality cuts on a twelve-inch disc, fill the remaining grooves with garbage, and sell the package for $6.98. Scharf says, "If I have no lapses of taste, no filler, then I've doubly or tripled the value of my record."

He has a point. In order to get ten Frank Sinatra "classics," you probably have to buy five albums at a cost of $35. True, you can buy "best of" LPs, but these are often poorly remastered and cheaply pressed, so you're better off buying the originals.

Scharf, ex-producer of Spanky and Our Gang and Carly and Lucy Simon, spared no expense in creating the cleanest master and highest fidelity reproductions possible. It cost $61,072 to strike the 1,250 discs—$50,500 for production and $10,500 for pressings. Here is a rough breakdown:

**PRODUCTION**

<table>
<thead>
<tr>
<th>Item</th>
<th>Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Studio time (Audio I and The Hit Factory, New York)</td>
<td>$42,471</td>
</tr>
<tr>
<td>Wages to musicians, singers, engineers</td>
<td>5,215</td>
</tr>
<tr>
<td>AFM Local 802 fees, benefits, pension payments</td>
<td>3,600</td>
</tr>
<tr>
<td>Mastering (Sterling Sound)</td>
<td>676</td>
</tr>
<tr>
<td>Rejected first pressing (Audio Matrix)</td>
<td>1,111</td>
</tr>
<tr>
<td>Misc. (lawyers' fees, musician transportation and accommodations, phone, music copying, etc.)</td>
<td>1,195</td>
</tr>
<tr>
<td><strong>TOTAL COST</strong></td>
<td><strong>$50,449</strong></td>
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</tbody>
</table>

**PRESSINGS**

<table>
<thead>
<tr>
<th>Item</th>
<th>Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pressing (classical cycle)*</td>
<td>$2,751</td>
</tr>
<tr>
<td>Covers, mailers, other paper and print costs</td>
<td>4,272</td>
</tr>
<tr>
<td>Handling and postage</td>
<td>3,600</td>
</tr>
<tr>
<td><strong>TOTAL COST</strong></td>
<td><strong>$61,072</strong></td>
</tr>
</tbody>
</table>

*A classical cycle, as opposed to pop cycle, pressing, involves leaving the disc in the jaws of the press longer in order to gain maximum fidelity in reproduction. It is costlier because it takes longer.

written alphabetical list of the members of the Stuart Scharf Recording Club and their musical and technical contributions to the production of the recording. Besides this thorough recognition, the musicians and engineers were paid above-scale wages and given portions of a fixed issue of a thousand shares of stock. The size of each block of stock was determined by the contribution made: Roberta Flack, who assisted in production on eight cuts and played and sang on two, received seventy shares; drummer Bernard "Pretty" Purdie, who played keys on one track, got five shares.

Since Scharf "let the numbers dictate the situation," no money can be made by anyone from the sellout of the album itself. Each of the fifty contributors received a complimentary copy and even at $50 per record the remaining 1,200 will bring in no more than $60,000. A glance back at the budget figures shows that this is a net loss of $1,000.

Whatever profit is made will come from mechanical royalties. If any cut becomes popular and is reproduced as a single, the shareholders (after the cost of making the album is recouped) will receive dividends from the single's sale, its airplay, and its use in jukeboxes. If another artist performs any of the original songs, they will share in the royalties. And if any part of the recording is used with film, they will receive box-office money.

But what do you, the buyer, get for your fifty smackers? Well, you get one signed, numbered pressing of the disc that Scharf suggests "is probably best left unplayed"; a second unsigned and unnumbered "promotional copy"—so Scharf calls it—to be played for yourself and, he hopes, other potential buyers; the aforementioned jacket, with full lyrics; and a short thank-you letter from Scharf (on recycled paper, of course). And some fine music, as Morgan Ames points out, with at least one possible breakaway hit single, "Everything." Is that worth $50? It's up to you. Maybe it is if you consider that you're also buying a piece of a challenge to the record-industry establishment: to follow suit in their dealings with artists or come up with something better.
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Can't Fight the Feeling; The Stranger; Feast for a Young Man's Ears; five more. [Glen Spreen, prod.] Columbia PC 34298, $6.98. Tape: PCT 34298, $7.98; PCA 34298, $7.98.

John Reid is a longtime backup musician who has played and sung with many groups and soloists offering many different kinds of popular music. He is also a fairly prolific song-writer whose work has been recorded by such diverse artists as Kris Kristofferson and Carmen McRae. "Facade" is his debut LP, and it's a good one.

Reid's intriguing voice—at times low and raspy, at times high and strident—is backed by a basic rock combo. And although there is orchestral and vocal sweetening in spots, it never intrudes. He is best as a rock and roll singer; the high points of "Facade" are the rock tunes, such as "Dear One" and "Can't Fight the Feeling." The ballads sometimes are flat. "The Stronger," about a perennial would-be suicide, tries too hard to achieve an eerie kind of significance and fails.

Despite the few flaws, Reid is a good man to have in the foreground for a change.

Judy Collins: Bread and Roses

Judy Collins, vocals; instrumental accompaniment; Rich Bell, Alex Blachly, Jonathan Tunic, and Arl Mardin, arr. Bread and Roses; Everything Must Change; Come Down in Time: I Didn't Know About You; Spanish Is the Loving Tongue; seven more.

Tape: TC9 1076, $7.97; ET8 1076, $11.75.

In music-industry parlance a gold record indicates that a recording's sales have reached the million-dollar mark. "Bread and Roses" is a 24-carat treasure unto itself. Judy Collins' maturing artistry transcends labeling. She is no longer merely another "folkisnger" and certainly not a "rock and roll" star. The artlessness with which she practices her art, the intuitive skill in selecting material, and the loving attention she lavishes on every performance give her a universal appeal.

This LP is no radical departure from her previous ones but includes all those Collins attributes that make each album a special delight. There's that rich, sinuous voice with its soaring glissandos and the subtle, jazz-inflected variations in melody and time, as in "Everything Must Change" and Elton John's "Come Down in Time." She gently prods our social consciousness in songs that have a powerful message, such as "Bread and Roses" and "Plegaria a la Rosa; Nightmare; Can I Rely on You; If Only the Weather Would Change; Superstar; For Pete's Sake (Julian Street), Seems I'm Falling, Happy Birthday to Ya [Gary Klein, prod.] RCA APL 1-1548, $6.98. Tape: APS 1-1548, $7.95.

Brooklyn-born Henry Gaffney says he was discovered when music-business executive Charles Kopelman came into the clothing store in which he was working to buy a tie. Two days later he was recording for Kopelman's production company. The result is this album, by any measure a very good one. Gaffney has a sense of humor. He once studied physics but quit because "you can't use it in a brick fight." No matter what happens to the British Empire, there will always be a Brooklyn.

Quite apart from this image, Gaffney's music is light, tender, and flowing. He sings a bit like Harry Nilsson, whom he professes to admire, and a bit like Kenny Rankin. Producer Gary Klein has graced Gaffney's music and singing with simple arrangements. A small rock combo— seldom more than five pieces—is augmented by sedate orchestral parts arranged well by Charlie Calello. The delicacy with which the instrumentation is handled allows Gaffney's buoyant voice to soar unpimpered.

Of the ten tunes on this album, I am most taken by "I'm Waiting for a Wind," a lovely little exposition of the joys of yearning, and "Can I Rely on You," a love song that reminds me of several of Paul Simon's ballads.

Jane Olivor: First Night

Jane Olivor, vocals; vocal and instrumental accompaniment. My First Night Alone Without You; Come Softly to Me; Morning, Noon, and Nighttime; Better Days; L'important, c'est l'amour; Carousel of Love; Vincent; One More Ride on the Merry-go-round; Some Enchanted Evening; Turn Away [Jason Darrow, prod.] Columbia PC 34274, $6.98. Tape: PCA 34274, $7.98.

The laudatory critical remarks quoted on the jacket of "First Night" tell us that Jane Olivor uses her voice "like a cello." It is "beautiful, clear, haunting," and she treats a song "as if it were a priceless treasure." If this is true, and I don't doubt it that is, why has producer Jason Darrow treated Olivor's voice as if it were something to be covered up? He has buried her beneath a mishmash of instruments—too many, played too heavily. The main offender is the string arrangements. There is enough sweetening on this one album to take care of everything Robert Coulter has ever recorded. If you put an ear to the loudspeaker and listen hard enough, you can discern that quality lies within. But why, oh why, must we have a Geiger counter to find it?

I suggest that anyone who wants to know what Jane Olivor sounds like avoid this disc and either hear her in person or wait until she is presented on disc properly.

Henry Gaffney: Waiting for a Wind

Henry Gaffney, vocals and guitar; vocal and instrumental accompaniment. I'm Waiting for a Wind; Off My Shoulder; Manhattan, Nightmare; Can I Rely on You; If Only the Weather Would Change; Superstar; For Pete's Sake (Julian Street), Seems I'm Falling, Happy Birthday to Ya [Gary Klein, prod.] RCA APL 1-1548, $6.98. Tape: APS 1-1548, $7.95.
A COLLECTOR'S "PORGY AND BESS." Various performers. [Peter Delheim, reissue prod.] RCA VICTROLA AVM 1-1742, $3.98 (mono) [from various originals, 1935–53].

A COLLECTOR'S "SHOW BOAT." Various performers. [Peter Delheim, reissue prod.] RCA VICTROLA AVM 1-1742, $3.98 (mono) [from various originals, 1926–58].

These two discs, unlike the Victrola opera reissues ("Golden Age Aida" and the like), aren't restricted to substantially consistent casts and relatively narrow spans of history. As a result, they work less well. In the case of Show Boat, the stylistic hodgepodge is really too much for the ear and the mind to pull together. Basically, this consists of a 1956 recording featuring Patrice Munsel, Robert Merrill, and Rise Stevens, under the baton of Lehman Engel—but with substitutions and additions. The 1956 performances are pleasant but pretty bland, with Munsel frequently uncertain of pitch, Merrill prone to scroopy attacks and a wooly manner. Some uncommon material is included—even Charles K. Harris' "After the Ball," which was one of the period songs inserted into the original score; Munsel's performance sent me reeling for Joan Morris and Bill Bolcom (Nonesuch H 71304).

Out of another stylistic bag are Helen Morgan's fresh, direct 1928 versions of "Can't Help Lovin' Dat Man" and "Bill." And there is a most curious up-tempo version of "Ol' Man River" in which Paul Robeson is pretty overwhelmed by Paul Whiteman's orchestra and some arranger's trickery (a bit of the New World Symphony even creeps in). This may have some claim to authenticity, though Alfred Simon's notes do not call attention to the fact that this is hardly the way most of the world remembers the song—try Robeson's 1932 version on Columbia Special Products AC-55 (which also includes Morgan's 1932 recordings of her numbers, and very pleasant, stylish versions of several of the other songs).

Finally, from another direction come two unusual songs, "I Have the Room Above" (written for the 1936 film) and "Nobody Else but Me" (for the 1946 New York revival), sung respectively by Howard Keel and Gogi Grant. The last of these is one of Kern's most elegant songs, but Miss Grant goes it up (sorry—but if you will use a name like Gogi you must expect it to inspire verbs like that) in a manner that makes one glad the Fifties are over.

Obviously, there are performances here for three different publics—roughly, Broadway, Lincoln Center, and Hollywood—besides which, some of them just aren't very good. It's hard to imagine a single collector to whom all of this Show Boat will appeal.

Porgy is, of course, an opera to begin with, and Gershwin was delighted to have selections recorded, right after the premiere, by Lawrence Tibbett and Helen Jepson of the Met. Three of these are included here ("I Got Plenty of Nuttin'", "The Buzzard Song," and "Bess, You Is My Woman Now"); complete with chorus and secondary singers under the direction of Alexander Smallens, who conducted the original production. Tibbett is in marvelous voice and spirits, Jepson attractive enough despite a halo of distortion around her higher notes.

I have no doubt that Gershwin would have been equally delighted by the performance of "Summertime" that opens the record: a dewy-voiced Eleanor Steber, as lovely a sound as you will ever hear. Four additional tracks stem from a 1950 set, with Merrill ("A Woman Is a Sometime Thing" and the final sequence), Stevens ("My Man's Gone Now," transposed down a third), and the Robert Shaw Chorale (the opening sequence of the second scene). Merrill is more comfortable, less pompous, here than in Show Boat, but he's not Tibbett, and this collector, at least, would have preferred a straightforward transfer of the entire 1935 set to the mixture offered here. The waters are further muddied by a 1953 Cab Calloway version of "It Ain't Necessary So," in which the scat cadenzas virtually overwhelm the song.

In short, a dubious idea, indifferently carried out. —DAVID HAMILTON

November 1976
Almost twenty-five years ago, along before the Bessie Smith revival of the Sixties and Seventies when all sorts of singers were reaching for that rich, exultant sound, Claire Austin made some records for Good Time Jazz with Turk Murphy's band that made a lot of listeners think of Bessie. Relatively little of Austin has been heard on disc since then—and in hindsight the recording circumstances did not favor her—so this disc with Gene Mayl's Dixieland Rhythm Kings comes like a bolt from the blue. This time the circumstances are all in her favor, including an accompanying band so good that it tends to run away with every selection.

On this hearing, Austin is not the Bessie Smith-Ma Rainey belter that she was back in the early Fifties. She uses an easier, more relaxed delivery that sometimes suggests the blues singers of the Twenties (on "Goin' Crazy with the Blues") and at other times has touches of Mildred Bailey or Lee Wiley. The connection with all these disparate sources is her jazz phrasing. But there are times when she is pushing, when she can't get hold of a song—"New Orleans Hop Stop Blues," for example, which simply eludes her. But "Exactly Like You," a lighthearted and easy swinger that slips through her fingers, is confidently handled by the dashing cornet work of Ernie Carson and propelled by a very solid rhythm section. Carson, who suggests several good cornetists in his playing (starting with Louis Armstrong), is brilliant with a plunger mute; he makes "That Da Da Strain" something of a tribute to Muggsy Spanier, whose plunger-mute style he emulates with great success.

J.W.

Kid Thomas and the New Black Eagle Jazz Band. Kid Thomas Valente, trumpet; Tony Pringle, cornet; Stan Vincent, trombone; Stan MacDonald, clarinet and soprano saxophone; Bob Plisbury and Terry Waldo, piano, Eli Newberger, tuba; Pete Bulis, banjo; Trefor Williams, string bass, Pam Pameijer, drums. Panama Rag; Algiers Strut; St. Louis Blues; four more. GHB 145, $5.98.

Nothing seems to get in the way of the drive and spirit of the New Black Eagle Jazz Band. On this disc the Boston group, consistently one of the best traditional jazz bands in the country, has several visitors sitting in, but it still comes out swinging as lustily as ever. The recording was made at an all-hours session at the so-called World Championship of Jazz in Indianapolis in 1972. Two of the seven selections are by the regular band members. On the remaining five Kid Thomas Valentine, the New Orleans trumpetist who was seventy-nine years old at the time, replaces the Eagles' Tony Pringle. Waldo takes over on piano for Bob Plisbury on two selections; tuba player Eli Newberger gives way on one to string bassist Trefor Williams of Max Collie's English group.

Despite all this musical-chairs rotation, the band manages to retain its basic sound and attack, spiced by the distinctive presence of Kid Thomas. His brisk, biting phrases and sudden splashes of raucous yawp played into a metal hat are quite different from the relatively bland style of
Pringle, the least provocative Eagles member, but he proves to be quite complementary. Among the Eagles, Stan Vincent is a tower of strength on trombone, and Stan McDonald, who is usually so impressive on soprano saxophone, is not quite as distinctive on clarinet, although he has some especially strong low-register passages. As usual, the Eagles' remarkably solid rhythm section, driven by Pete Bulis' banjo and goosed along by Newberger's rhythms, tuba burps, sets a pace and tone that are goose-effed along by Newberger's rhythmic precision. Joe Pass on guitar is the only one who does not seem pulled into the Carter orbit. His solos are pleasant, but they are not tied to the moods of the over-all performances as the others are. But he is a helpful part of a rhythm section, including John B. Williamson bass and Jake Hanna on drums, that gives Carter the kind of close, understanding backing that his conceptions call for.

**Barbara Carroll**
Barbara Carroll, piano, Chuck Domanico, bass; Coin Bailey, drums; Victor Feldman, percussion; Dennis Budimir, guitar. In Some Other World; At Seventeen; I Can't Get Started; six more. BLUE NOTE LA 645G, $6.98

Barbara Carroll's first LP in eight years is a provocative mixture of those qualities that make her one of the most interesting jazz pianists around and of the overripe performances that too can fall into in trying to keep in touch with audiences that are more pop-oriented than into jazz.

Carroll's creativity and the positive swinging sense she can bring to her performances are emphasized on both opening selections on one side of the disc, a blues that projects a dark, introspective mood without getting involved with obvious funk, the other a glancing, swirling waltz that slows down for a hauntingly delicate inner segment. She follows the latter with a clipped Latinesque treatment of Janis Ian's "At Seventeen" that keeps moving with a delightfully rhythmic feeling. But she is less successful with a pair of familiar ballads: " Prelude to a Kiss" starts with single notes dropping like the single petals of a flower but the Carter orbit. Her piece gets away from her by loading too much on it, a flaw that also undercuts "I Can't Get Started."

The best of this record is as good as you'll hear from any contemporary pianist. And even the least of this is unusually good by most standards.

**Benny Carter**: The King. Benny Carter, alto saxophone, Milt Jackson, vibraphone, Joe Pass on guitar, Sonny Stitt, alto and tenor saxophone, Jon Faddis and Lew Soloff, trumpets; Frank Owens, electric piano, Bucky Pizzarelli, guitar. CAN'T GET ENOUGH; TELLS A BALLAD; B M-mint; WIT A KNIGHT; My Kind of Trouble Is You; Easy Money; five more. PABLO 2310 76B, $7.98. Tape. J.S.W. S 10768, $6.98.

The word for Benny Carter on alto saxophone is "exquisite." Yet that does not begin to convey the variety of ways in which he expresses himself in this set, his first recording in ten years and his first collection of his own compositions. He plays the blues, he plays ballads, and he swings—in one sequence with a suggestion of a hossa nova beat. With effects ranging from the earthereal to the subtly lusty, the exquisite-ness of his performance remains constant. Carter is a superb technician and a brilliantly imaginative musician, but his presentations are done in such a low-keyed, unsensational manner that their full merit can be taken too much for granted. He is in an ideal setting in this collection. Milt Jackson, whose playing on vibas has a quality very much akin to Carter's alto playing when he is of a mind to go in that direction, is of that mind on these pieces. Tommy Flanagan on piano is in a familiar groove—warm, reflective and swinging in subtle colors. Of the four soloists, Joe Pass on guitar is the only one who does not seem pulled into the Carter orbit. His solos are pleasant, but they are not tied to the moods of the over-all performances as the others are. But he is a helpful part of a rhythm section, including John B. Williamson bass and Jake Hanna on drums, that gives Carter the kind of close, understanding backing that his conceptions call for.

For those who can remember hearing the John Kirby Sextet in the late Thirties and early Forties, especially its Sunday afternoon Flow Gently, Sweet Rhythm radio programs, there is often a sense of disappointment on hearing the few LP reissues of the band's records that have appeared in recent years. Somehow the sextet's style—crisply precise but flowing along on a rolling beat—did not seem quite as repetitively limited at that time. And was there really so much emphasis on swinging the classics? These questions are raised again by these recordings made between 1941 and 1944, although the classical borrowings are minimal and there is more stylistic variety than in some of the earlier reissues. There is no question that the group had a highly identifiable sound—a bright, refreshing sound in itself, but one that could become tiresome in extended doses. Fortunately, that sound was often used simply as the basis for a performance, allowing the soloists to take over with a free flow of their own ideas and individual styles. And that is when this set is at its best: Charlie Shaver's trumpet darting through his own crackling arrangements, Billy Kyle's piano galloping along joyously, Russell Procope's alto saxophone soaring with warm lyricism. The fourth soloist, clarinetist Buster Bailey, was a relatively dry improviser, but he provided a balance for the more florid aspects of Shavers playing.

The source of these recordings is not indicated (transcriptions?). They give a good demonstration of the sextet's scope: blues, pop, Dixieland, Latin tunes, and originals as well as the classical borrowings. But the set should be taken, at the most, one side at a time, to avoid letting the tight, muted ensembles wear thin.

**Sonny Stitt**: Stomp Off Let's Go. Sonny Stitt, alto and tenor saxophones, Jon Faddis and Lew Soloff, trumpets; Frank Owens, electric piano, Bucky Pizzarelli, guitar. LEAPIN' AT 'EM; TWIN TROUBLE; PAPA'S HOUSE; RHYTHM AND BLUES; DADDY; DADDY; three more. PABLO 2310 76A, $7.98. Tape. J.S.W. S 10768, $6.98.

The source of these recordings is not indicated (transcriptions?). They give a good demonstration of the sextet's scope: blues, pop, Dixieland, Latin tunes, and originals as well as the classical borrowings. But the set should be taken, at the most, one side at a time, to avoid letting the tight, muted ensembles wear thin.
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In view of the number of records Stitt has turned out (he occupies almost half a column in Schwann's), two more might seem barely worth noticing. His set on Catalyst with Red Holloway puts him in tandem with another saxophonist who matches his freewheeling drive. But beyond the fact that opportunities are taken for some invigorating brief exchanges between the two, this is essentially another typical Stitt record. Both saxophonists show off their facileness, but they are going through the same Stitt formula.

On the Flying Dutchman record, however, Stitt is given some real support—the ensemble body of two trumpets and an electric rhythm section, backed by Louis Bellson's drumming, that has a tremendously joyful drive. Frank Owens plays the electric piano (an instrument I normally have no fondness for) with an unusually resourceful sense of color and bright lights. With Lew Soloff and Jon Faddis providing trumpet contrasts (and a brilliant, growling solo—by Soloff, I assume—on "Duke's Place"), Stitt is able to relax and play both tenor and alto with an easy feeling that does not come readily when he is carrying everything on his own shoulders. J.S.W.

zarella, electric guitar; Richard Davis, electric bass; Louis Bellson, drums, Leopoldo Flemming, percussion. Samba de Orfeo; Duke's Place, Perdido; Little Suede Shoes. FLYING DUTCHMAN BDL 1-1538, $6.98 Tape: • BOS 1-1538, $7.95

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Sonny Stitt with Red Holloway has been an altogether new and one would think, creatively stifling professional life: moving alone from club to club, playing with whatever rhythm section is available, necessarily staying within a repertoire of tunes these local musicians happen to know. And he has been recorded repeatedly in very much the same circumstances. The wonder is that he still plays with the spirit and drive that he usually manages to display.

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**In Brief**

David Ruffin: Who I Am. MOTOWN M6 849, $6.98. Tape: • M 849C, $7.95; • M 849T, $7.95.

This time out Ruffin gets heavy disco treatment in the style of Van McCoy. His most commercial album in quite some time, perhaps, but certainly not his most listenable.

Carl Carlton: I Wanna Be with You. ABC 910, $6.98. Excellent high-energy r&b-type talent out of ABC Records. Carlton had recent success with a single whose title escapes me. This is a bright album to dance to, and I'm picky...

David Ruffin is a bright album to dance to, and I'm wondering if he's been working on something. His most commercial album in quite some time, perhaps, but certainly not his most listenable.

Carl Carlton: I Wanna Be with You. ABC 910, $6.98. Excellent high-energy r&b-type talent out of ABC Records. Carlton had recent success with a single whose title escapes me. This is a bright album to dance to, and I'm picky.

M.A.
Treemonisha time-traveling. Just as the Ragtime King had to travel far back in space and time to an Arkansas plantation in 1884 for the locale of his Treemonisha, so we must transport ourselves back to the urban domains of pop music c. 1910 to appreciate what an impossible dream Scott Joplin attempted to realize in that "opera." It couldn't possibly be— and isn't—successful. Yet like another overambitious American folk opera, Porgy and Bess, it is far greater in some parts than as an entity. The earnestly serious writing here, except perhaps for some choral passages, is as disarmingly banal as the plot and characters. The music comes exuberantly alive only in the rollicking Ring play, "Aunt Dinah Has Blowed de Horn," and final "Real Slow Drag." But what a delight it is then and when it commands: "Enter eight bears; bears begin frolicking!" For that matter, how fascinating a period piece it is even in its most naive moments.

The present performance is that of the 1975 Houston (later Kennedy Center and Broadway) company led by Gunther Schuller, one in which the chorus and orchestra generally overshadow the soloists (except Carmen Balthrop in the title role). It is magnificently recorded in every respect: Deutsche Grammphon 3370-012, two Dolby-B cassettes, boxed with notes and text, $19.96.

European grand tour, first class... On a more orthodox musical trip overseas, we are privileged to begin with the octogenarian Andres Segovia's exploring—in two aptly titled "Intimate Guitar" programs—of not only delectable Spanish byways (Sor, Albéniz, Ascensio, et al.), but also those of baroque-era Germany (Benda, Weiss, and Bach). Segovia is even more persuasive and vividly present in these recordings than he ever has been before: RCA Red Seal ARK/ARS 1-0864 and 1-1323, cassettes/cassettes, $7.95 each.

• The raptly devout ambience of a late-nineteenth-century Parisian cathedral is evoked for us in the incomparably gentle and touching Requiem of Gabriel Fauré, beautifully sung and played by soprano Elly Ameling, the Netherlands Radio Chorus, organist Daniel Chorzempa, and the Rotterdam Philharmonic under Jean Fournet; Philips 7300-417, Dolby-B cassette (with notes but no text), $7.95. Connoisseurs' only complaint can be the choice of the instrumental-only version, rather than the one with chorus, of the hauntingly tuneful little Pavane used as B-side filler.

• Next, on to the verdant Czech countryside of Dvořák's gracious String Serenade, Op. 22, thence north to Norwegian seashores for Grieg's salty Holberg Suite. Both are recorded and played as well as they ever have been by just the right sized orchestra, Academy of St. Martin-in-the-Fields under Neville Marriner: Argo KZRC 670, Dolby-B cassette, $7.95.

• Finally, over the North Sea and far back in time for the "Pleasures" of the courts of England's Henry VIII and Elizabeth I in some of the tragically last re-creations of that gifted master of early music, David Munrow. He leads a viols/lutes "consort" in ten charming dances, mostly from Morley's First Booke of Consort Lessons, and his Early Music Consort (a typical renaissance band of winds and percussion as well as some strings) in twelve pieces from Susato's Danserye of 1551—a gloriously kaleidoscopic display of raw timbres captured to perfection in robustly reverberant recording: Angel 4XS 36851, Dolby-B XDR cassette, $7.98.

...To old countries, economy class.

Cheap reprints have never been as plentiful or as worthwhile in tape domains as they are in disc (or book) worlds. Hence my warm welcome for the Everest Record Group's new Everest and Olympic series of classical reissue cassettes at the equivalent disc-edition price of $4.98 each. The major representation of the onetime supreme Everest label is the five-cassette boxed set of the nine Beethoven symphonies by the London Symphony under Josef Krips (3065/5, $14.95). These 1960 recordings may show some signs of age, but they are generally—sometimes notably—effective, and the Krips readings still rank over-all among the best in the true Viennese tradition. No "frills" (like Dolby-B and notes), of course, and the processing is slipped: long waits for some side beginnings, a jarring side break in the third movement of the Ninth, and occasional suspensions of transfer-speed unsteadiness.

In the Robert Stolz/Vienna Symphony Johann Strauss II waltzes (Olympic 8132), the processing is satisfying, the decade-old (or more) Aubiola/Eurodisc recording acceptable, and the performances of five favor-ites are complete and idiomatic, if easygoing. But, inexplicably, four other waltzes are severely cut and partially rescored.

In contrast, my third (and unluckiest) sample is the complete Falla Three-Cornered Hat ballet (Everest 3057) in the fiercest and one of the most idiomatic of all its recorded performances (Barbara Howitt/London Symphony/Enrique Jordi) and in 1960 sonics that still blaze spectacularly. But here some studio janitor must have taken over the transfer monitoring, insensately deaf to the horrendous distortion of too-high modulation peaks. So while I recommend the investigation of the thirty-two other treasures in the Everest list and seventeen others in Olympic's, be fairly warned: Caveat auditor! (And, for what more exemplary transfer technology can do even with some quite old recordings and with programs as long as two hours for the budget price of $5.95 per Dolby-B cassette, look and listen to the catalogue of the Classical Cassette Club, 118 Route 17, Upper Saddle River, New Jersey 07458.)

Reel hope-springers. Hang in there, open-reel aficionados! Barclay-Crocker's first (Musical Heritage) releases are on the way. Meanwhile, Stereotape/Magtec is active again, now with Dolby-B processing. Only pop reels so far, but London classics are coming in both stereo and quad as well as Dolby-B. These will be distributed not only by the reel specialist Barclay-Crocker firm in New York City, but also by the midwestern Reel Society, P. O. Box 651, Arlington Heights, Illinois 60006, established by Russell Fields, who ran the (now late) Ampex Tape Society for six years.

Meanwhile, there is Sonar—and an occasional independent like Dr. Philip Springer, who's issuing quad reels of some of his many concert-tested electronic music compositions. I've heard the Q-reel coupling of his thirteen-minute TV-film score, The Space Watch Murders, and a twenty-minute "sound scenario" of recent national traumas, American Fantasy ($7.50 plus mailing costs from Tamir Productions, Box 1174, Pacific Palisades, California 90272). The former impresses me both musically and technically by scene and atmosphere evocations of genuine poetic sensibility and by uncommon economy of executant means. The latter is a more spectacular quasi-documentary showpiece, an outstanding feat of imagination and ingenuity yet always tautly controlled exploitation of four-channel potentials.
"Marantz is just about the only component manufacturer around that's devoted to system interfacing."

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Now you don't have to starve your treble to feed your bass.

Our KR-9600 Receiver puts independent power supplies behind each channel, so demanding musical passages in one channel won't cause distortion in the other.

At 160 watts per channel minimum RMS power at 8 ohms, from 20 to 20,000 Hz, with no more than 0.08% total harmonic distortion, the KR-9600 is the most powerful receiver we have ever made. What's more, the KR-9600 is loaded with special features. A mid-range presence control, MIC mixing and source fading, a deviation meter for perfect off-air recording and 2 big power meters, to mention a few.

Impressed? All this and more, on the KR-9600. At just $750* it's the best watts-per-dollar value around.

*For informational purposes only.