10 Lab Test Reports

Onkyo TX-560 stereo receiver
Revox A-700 deck
Accuphase P-300 amplifier
Audionics TL-90 loudspeaker kit
B&O Beogram 4002 turntable
Sequerra I FM tuner
Toshiba PT-490 cassette deck
Uher CR-134 cassette deck
ESS AMT-3 loudspeaker
Sennheiser MKE-2002 binaural mike system

January 1975 $1.00

Soviet Opera on Disc
phase distortion, plus substantially better stability with four double tuned phase linear ceramic filters and four monolithic IC's in the IF section.

6-stage limiters
The IF section includes 6-stage limiter circuits. Used in conjunction with differential amplifiers in monolithic IC's, noise interference is completely eliminated with a signal to noise ratio of 75dB.

Exclusive Phase Lock Loop (PLL) IC circuitry in the TX-9100 multiplex section
Developed and used for the first time by Pioneer, the Phase Lock Loop (PLL) circuit is actually an electronic servomechanism. It maintains continuous and precise phasing between the pilot signal and the subcarrier, supplying optimum channel separation. Completely drift free, no alignment is ever required. The PLL cannot be affected by humidity or temperature since there are no coils or capacitors to be detuned. This provides complete stability and reliability.

New pulse noise suppressor in the TX-9100 operates with computer control
This circuit operates automatically when it is switched on. It effectively blocks radiated noise from airplane and auto ignition systems, neon and traffic lights, etc. It does not interfere with frequency response and stereo separation. Whether the signal is weak or strong, this automatic 'brain' decides when the PNS gate circuit is to operate.

Unique muting control
A 2-position variable muting control uses electronic switching as well as reed relay switching. This eliminates interstation noise and the popping noise of tuning and detuning.

Complete command with a wide variety of controls
Whether it's for AM, FM or headset output levels, Pioneer provides greater operating precision with three independently operated output level controls. A headset may be used without a following power amplifier. Precision tuning is achieved with the aid of signal strength and tuning meters.

AM section highlights IC's
The entire AM section, following the front end, is a unitized IC. A monolithic IC replaces 84 individual components plus a ceramic filter. By using a differential amp circuit and a balanced mixing circuit, there are better spurious characteristics and special AGC amplification.

Great specs for great performance

<table>
<thead>
<tr>
<th>TX-9100</th>
<th>TX-8100</th>
<th>TX-7100</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>FM Sensitivity (IHF)</strong></td>
<td>1.5uV</td>
<td>1.8uV</td>
</tr>
<tr>
<td><strong>Selectivity</strong></td>
<td>90dB</td>
<td>80dB</td>
</tr>
<tr>
<td><strong>Capture Ratio</strong></td>
<td>1dB</td>
<td>1dB</td>
</tr>
<tr>
<td><strong>S/N Ratio</strong></td>
<td>75dB</td>
<td>70dB</td>
</tr>
<tr>
<td><strong>Image Rejection</strong></td>
<td>110dB</td>
<td>100dB</td>
</tr>
<tr>
<td><strong>Stereo Separation</strong></td>
<td>40dB</td>
<td>40dB</td>
</tr>
<tr>
<td><strong>Distortion (THD)</strong></td>
<td>Mono 0.2%</td>
<td>0.2%</td>
</tr>
<tr>
<td></td>
<td>Stereo 0.3%</td>
<td>0.4%</td>
</tr>
<tr>
<td><strong>Spurious Response</strong></td>
<td>110dB</td>
<td>100dB</td>
</tr>
</tbody>
</table>

The Amplifiers: SA-9100, SA-8100, SA-7100
Two separate power supplies utilize 30,000 uF total capacitance
You read it right. The power supply in the SA-9100 uses a total capacitance of 30,000 uF, 15,000 uF each for the balanced positive and negative power supplies. This completely eclipses anything now available in integrated amplifiers. This super high capacitance results in an absolutely pure DC voltage supply. There's constant DC voltage regulation regardless of line voltage changes and signal input. Even at extremely low frequencies there's stable power output, excellent transient response and minimum distortion — only 0.1% at any frequency between 20-20,000Hz for 60 watts output per channel.

These positive and negative power supplies provide absolute stability in all stages, even in the equalizer amp and proceeding to the control and power amplifiers. Therefore, the signal lines become zero potential to completely eliminate the usual (and annoying) click noise of operating controls and switches.

Stability is increased even further by the differential amplifier used in the first stages of the equalizer and control amplifiers (also the power amp.). 100% DC negative feedback supplies excellent stability and transient response; it also eliminates distortion. To further increase...
The time has come to completely re-evaluate the standard you now use to judge high fidelity performance. With this new line of tuners and amplifiers, Pioneer presents many ingenious innovations in circuitry that are being used for the first time. However, this exclusiveness is only secondary. While each new circuit can be considered revolutionary by itself, what is even more important is that their combined capabilities achieve precision and performance heretofore unattainable.

The Tuners: TX-9100, TX-8100, TX-7100

FM front end — an engineering triumph
The height of sophistication, the TX-9100’s stabilized, drift-free front end replaces printed circuit boards with completely metallized construction. The same used in high precision communications equipment. Employing three dual gate MOS FET’s and a buffer circuit in the local oscillator, there’s exceptionally high gain with extremely low noise. "w3 tuned RF stages with a 5-gang variable tuning capacitor contribute to the highest selectivity (90dB) and astonishing FM sensitivity (1.5uV). The exclusive use of a heavy gage die cast aluminum housing assures uncanny stability.

IF section — the epitome of advanced research
In the pursuit of excellence, significant new IF section technology was developed. The result is optimum selectivity with minimum

Exclusive heavy gauge die cast aluminum housing assures uncanny stability.
HIGH FIDELITY: "...The performance of the SA-9100 is so exceptional and the many extras in the way of switching options, and so on, so eminently useful, that we find it the most exciting piece of audio hardware we've yet tested from this company."

HI-FI STEREO BUYERS' GUIDE: "(The SA-9100) is a powerhouse of sound level, performance and features. Works like something the chief engineer had built for his own use."

STEREO REVIEW: "...The TX-9100 unequivocally outperforms anything we have tested up to this time."

AUDIO: "You can't buy better audible performance than is achievable with Pioneer's new TX-9100 (AM-FM stereo tuner) at any price."

STEREO REVIEW: "This (SA-9100) is an essentially distortionless, bug-free, and powerful amplifier with exceptional flexibility...A highly complex array of electronic circuitry has been packaged into a consumer product of relatively modest price without a trace of 'haywire' or slipshod assembly. It almost seems a pity to hide internal workmanship."
stabilization, special electronic regulator circuits are used. Transient response is also improved with a superb damping factor of 70.

The unique equalizer amplifier
To make certain that extraneous signals do not interfere with the input signal, the equalizer amp is totally enclosed and sealed to prevent leakage.

There's also extra assurance of precision with special low noise metal film resistors and styrold capacitors. Both are manufactured under continuous computer control to highest laboratory test equipment tolerances: ±1% for resistors; ±2% for capacitors. Until now such precision has been unheard of in hi-fi equipment. Deviation from the ideal RIAA curve is only ±0.2dB.

Since a direct-coupled SEPP complementary circuit is used in the equalizer amplifier, virtually any dynamic phono cartridge can be accommodated without overloading or distortion. For example, with 2.5 mV sensitivity, the overload at 1KHz is an unbelievable 250mV, and 1220mV at 10KHz!

The control amplifier: Twin stepped tone controls custom tailor your listening.
Now you can make the most critical bass and treble adjustments with supreme ease. In fact, there are 5,929 tonal combinations to suit your listening room acoustics and to compare or compensate for component frequency response.

On the SA-9100 and SA-8100 four tone controls (two for bass, two for treble) make 2dB (2.5dB with SA-8100) step adjustments for the entire audio spectrum. Working together with the tone controls is a buffer amplifier with 100% negative DC feedback. The main bass control governs ± 10 dB at 100Hz; the sub-bass, ± 6dB at 50Hz. The main treble control governs ± 10 dB at 10KHz and the sub-treble, ± 6dB at 20KHz. This, plus the tone defeat control (described in the next paragraph) makes the SA-9100 the most exciting-to-use amplifier that has ever powered any hi-fi system.

New tone defeat switch
Because of the extremely wide variety (5,929) of frequency adjustments made possible by the twin tone controls, the tone defeat switch adds extra flexibility. Adjusting the tone controls to your satisfaction, when it is switched off you return to the original tone control settings.

The power amplifier
To sustain the ultra sophistication of the equalizer and control amp sections, the power amp has a direct-coupled pure complementary SEPP circuit, double differential amplifiers and two constant current loads. The combined effect is the achievement of wide power frequency range and excellent transient response. 100% negative DC feedback is supplemented by 66dB dynamic negative feedback for minimum distortion and absolute stability. The pre and power amps can be used independently with a separation switch.

Exclusive direct-coupling in all stages
Until now direct-coupling has been used only with the power amplifier. Pioneer takes it a dramatic step further in the SA-9100 and SA-8100. Direct-coupling in all stages from the equalizer amp to the control amp to the power amp. More effective? Absolutely. It achieves the finest transient response, wider dynamic range, THD and IM distortion of only 0.04% (1 watt). It's an incredible achievement.

Level set, volume and loudness contour controls adjust to listening preference
Three controls working together adjust to any degree of loudness. The level set control is the primary volume control. Its maximum loudness setting is 0dB.

Successive settings of -15dB and -30dB result in lower gain. Once the desired volume is obtained, the volume control is used for fine adjustments within the given range. While the loudness contour boosts bass and treble, it may also be used with the level set control. The more advanced the position of the level set control, the lower the effective range of the loudness contour.

The original and positive speaker protector circuit
Since the signal is fed directly to the speakers because of direct-coupling, an automatic electronic trigger relay system is incorporated into the power amplifier. This protects the speakers against damage from DC leakage which can also cause distortion. It also prevents short circuits in the power transistors.

Maximum convenience for program source selection
While there is a multiple function rotary switch for microphone, phono 2 and two auxiliaries, Pioneer has included an additional convenience. A separate flip type lever control for instant switching between the more widely used tuned and phone 1 and any other simple program source. Incidentally, both switches are shielded to prevent the input against undesirable extraneous signal pickups.

Two-way tape duplicating and monitoring
There are two separate flip type switches on the front panel of the SA-9100 for tape-to-tape duplicating and monitoring. Two tape decks can be connected for recording, playback and duplicating in either direction, with simultaneous monitoring.

Level controls for phono 2, aux 2
In order to match the level of various inputs, individual level controls are provided for phono 2 and aux 2.

Speaker B control
This special control helps in the use of two pairs of speaker systems of different efficiencies. There is no sacrifice of damping or distortion when switching from one pair to the other.

Impedance selector for phono 2
An easy-to-use switch allows you to employ any phono cartridge input (25K, 50K, 100K ohms).

Two-position high & low filters
The low filter switch on the SA-9100 and SA-8100 has subsonic (below 8Hz) and 30Hz positions. The high filter switch has 12KHz and 8KHz positions.

Maximum versatility in program sources

<table>
<thead>
<tr>
<th>Input</th>
<th>Tape monitor/S/N</th>
<th>Phono/S/N</th>
<th>Auxiliary/S/N</th>
<th>Microphone/S/N</th>
<th>Tuner/S/N</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Outputs</th>
<th>Speakers</th>
<th>Headsets</th>
<th>Tape Rec.</th>
</tr>
</thead>
<tbody>
<tr>
<td>SA-9100</td>
<td>3</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>SA-8100</td>
<td>2</td>
<td>1</td>
<td>2</td>
</tr>
</tbody>
</table>

Consistent power for every requirement

<table>
<thead>
<tr>
<th>RMS @ 8 ohms single channel driven @ 1KHz</th>
<th>RMS @ 4 ohms single channel driven @ 20-20KHz</th>
</tr>
</thead>
<tbody>
<tr>
<td>SA-9100</td>
<td>65+65 watts</td>
</tr>
<tr>
<td>SA-8100</td>
<td>44+44 watts</td>
</tr>
<tr>
<td>SA-7100</td>
<td>22+22 watts</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>SA-9100</th>
<th>SA-8100</th>
<th>SA-7100</th>
</tr>
</thead>
<tbody>
<tr>
<td>100+100 watts</td>
<td>60+60 watts</td>
<td>36+36 watts</td>
</tr>
</tbody>
</table>

This new lineup of Pioneer tuners and amplifiers is unquestionably the most advanced available today. Yet despite this overwhelming sophistication, they're sensibly priced.

See your Pioneer dealer. He'll show you how this series of fine instruments can outperform any units in their price range. All prices include walnut cabinets. For this limited time only. Only $139.95 each, with walnut cabinet.

U.S. Pioneer Electronics Corp., 75 Oxford Drive, Moonachie, New Jersey 07074
West: 13300 S. Estrella, Los Angeles 90248 / Midwest: 1500 Greenleaf, Elk Grove Village, Ill. 60007 / Canada: S. H. Parker Co.
One of life's delightful necessities: Stereo Headphones of Stanton quality...

... and that goes for Stanton's four-channel headphones, too. The Dynaphase Sixty-Five Four-C which, incidentally, with the simple flip of a switch permits you to enjoy perfect conventional stereo.

The whole gamut of Stanton headphones—each one of them—is designed as a speaker system for the head.

For instance, the Stanton Dynaphase 60 has an advanced two-way speaker system, and it is skillfully designed to fit your head comfortably. Its two-way dynamic reproduction system is mounted with a separate woofer and tweeter. A special crossover network precisely channels the highs and lows into each ear—you are there like you never were before.

Then, there is the Stanton Dynaphase 50 which features a wide-range dynamic stereo headphone system with controls in each earpiece for balancing the stereo channels.

Next is the Stanton Dynaphase 40. Its unique wide-range dynamic reproduction system is correctly acoustically mounted to precisely channel the highs and lows into each ear.

Finally, there is our new Open Audio Dynaphase 28. A new light-weight concept in personal listening. This brand new Stanton headphone is a feather-light model that gives no sense of isolation from your surroundings, yet the sound is pure and perfect.

Stanton quality is a very special quality—in headphones, too. One of them will suit your life style and your needs perfectly.

For further information, write: Stanton Magnetics, Inc. Terminal Drive, Plainview, N.Y. 11803.
January 1975
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Conrad L. Osborne
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From the makers of Marantz...
Superscope HiFidelity Products.

You don’t have to spend a lot of money to get your money’s worth.

Perhaps you’re not ready to make the commitment to high-priced stereo equipment. Or maybe you need a good second system. Then look into the modestly-priced Superscope line of receivers, components, tape decks, tape players and speaker systems.

Superscope products are designed and engineered by the same people who bring you world-famous Marantz stereo. And they’re backed by the same, strong, 3-year guarantee* that stands behind Marantz. So with Superscope stereo you’re getting quality at very modest prices. Your nearest Superscope dealer has a full line of equipment starting as low as $89.95. You’ll find him in the Yellow Pages.

Superscope—until you’re ready to step up to Marantz.

*Superscope, Inc. guarantees the original registered owner that all parts are free from operating defects for one year, two years or three years from purchase date depending upon product purchased. Product is repaired or replaced free of charge provided you bought it in the U.S.A. from an authorized dealer. Naturally the serial number cannot be altered or removed. **Manufacturer’s suggested retail price at dealer’s option. ©1974 Superscope, Inc., 8150 Vineland Ave., Dept. H, Sun Valley, Calif. 91352. In Europe: Superscope Europe, S.A., Brussels, Belgium. In Canada: Superscope Canada, Ltd., Ontario. Prices and models subject to change without notice. Consult the Yellow Pages for your nearest Superscope dealer. Send for free catalog.
The Dual 1229Q. Why many music lovers will settle for nothing less.

Many serious music lovers are not satisfied unless every component in their system is the very finest in its class, with cost secondary. The 1229Q, Dual's highest-priced multi-play turntable, is one of these "no compromise" components.

The 1229Q is a full-sized turntable with a twelve-inch dynamically balanced platter that weighs a full seven pounds. Its massive platter is driven by Dual's powerful Continuous-Pole/synchronous motor.

The 8-3/4" tonearm is mounted in a true gyroscopic gimbal that centers and balances it within both axes of movement. All four tonearm pivots turn on identical low-friction bearings permitting flawless tracking at as low as 0.25 gram. And since a turntable of the 1229Q's calibre is used most frequently in the single-play mode, the tonearm is designed to track at precisely the correct angle in that mode. With the exclusive Mode Selector, tracking angle can be instantly adjusted for correct tracking at mid stack in the multi-play mode.

Low capacitance tonearm leads and an anti-skating system with separate calibrations for conical, elliptical and CD-4 styli, make the 1229Q compatible with any stereo and four-channel cartridge available or likely to be available in the foreseeable future. Other features include a calibrated illuminated strobe with adjustable viewing angle, and cueing damped up as well as down to prevent bounce.

The 1229Q is too new for test reports to have appeared, but reports on its immediate predecessor, the Dual 1229, indicate why it was the largest selling quality turntable ever made. Stereo Review called its rumble measurements "among the best we have yet made on a turntable:' High Fidelity said, "It takes one step further the progressive improvements that have made top Dual models among the most popular turntables in component systems for the better part of a decade, to judge by readers' letters:' Stereo 8 HiFi Times' noted, "I unhesitatingly recommend it to anyone looking for the best possible record playing equipment:" And Popular Electronics rated it "the equal of any combination of record playing components known to us:'

Of course, not everyone can afford the 1229Q's price: $259.95. But every Dual turntable, starting with the 1225 at $129.95, provides the same high quality materials, carefully finished parts and meticulous quality control that have long earned Dual its reputation for reliability.

Thus which Dual you select is not terribly important. Your choice can be made in terms of the level of refinement you require. And if, like many music lovers, you require every refinement it is possible to have in a multi-play turntable, chances are you too will choose the Dual 1229Q.

United Audio Products
120 So. Columbus Ave., Mt. Vernon, N.Y. 10553
Exclusive U.S. Distribution Agency for Dual
Leonard Marcus' editorial appears on page 32 this month.

Every UD cassette gives you stainless steel guidepins to keep your recordings secure.

Tough steel pins form part of the internal security system inside every UD cassette. They make sure your UD tape runs smooth and winds even. (Ordinary cassettes have plastic posts that can wear out and cause wow and flutter.) These steel pins are another reason your Ultra Dynamic cassette captures the very best sounds (both high and low) your equipment can produce.

Use Maxell Ultra Dynamic cassettes and you'll always play it safe.

Maxell Corporation of America, Moonachie, New Jersey 07074. Also available in Canada.

CIRCLE 31 ON READER-SERVICE CARD
The technical virtuosity of our stereo components has to extend your sense of sound.
designed into each
a very sophisticated purpose:
to its fullest potential.

In other words, we'll do a number on your ears.

AKAI
You’ll hear more from us.
Why not get all the music you paid for?

You've built your music library with a critical ear and a good amount of money. Have you considered that your present amplifier might be short-changing your listening with elements of distortion and hum or noise?

You're entitled to pure unadulterated music—the original. Nothing more, nothing less. And this is the whole idea of the Crown DC-300 A. "Like lifting a curtain" was how one Crown owner described his experience.

Why not get an amplifier that gives you all the music in your collection, but no more than that!

Make this simple comparison:
(1) Listen with a critical ear to your favorite recording at home; then
(2) Listen to that same recording with a DC-300 A at your Crown dealer.

We rest our case on your ears!

Power output: 150 watts/channel min. RMS into 8 ohms stereo. 300 watts min. RMS into 16 ohms mono, over a bandwidth of 0-20,000 Hz, at a rated distortion of 0.05%. Intermodulation distortion less than 0.05%, 0.01 watt to rated output, into 8 ohms stereo, 16 ohms mono.

Is Crown crazy?
To guarantee parts and labor, and pay for round-trip shipping for three full years. (We'll even send you a shipping carton if you didn't save yours.) That takes nerve... and faith in your product!

At Crown, reliability is a way of life. Long life... with you.

letters

Mona Paulee and Other Matters

Regarding George Murphy's October letter, Mona Paulee can be heard to good advantage in the original-cast album of Frank Loesser's *The Most Happy Fella*. The anonymous liner notes (from 1956) contain this brief biography:

As Tony's discontented sister Marie, Mona Paulee gives still another in a long line of distinguished performances. Miss Paulee is one of the most luminous alumni of the Metropolitan Opera Company, with which she made her debut in 1942 as Zianetta in L'Elisir d'Amore. Born in Edmonton, Canada, Miss Paulee began her career in vaudeville, moving upward into light opera and operettas and appearances with the San Francisco Opera Company. In 1941, she won the Metropolitan Auditions of the Air, which led to her debut the following season. Among her greatest successes were parts in Cavalleria Rusticana, Mignon, Aida, and Rigoletto. She has been a soloist on many radio programs. Most recently she went to Europe to appear in the world premiere of Monteveddi's Orfeo in the version by Paul Hindemith, who conducted. She is especially noted for her European performances of Carmen.

Although Miss Paulee is heard in only one selection on the potted *Most Happy Fella* recording, Columbia Special Products has recently reissued its complete three-disc recording of the show.

Fred R. Serdinak
Tempe, Ariz.

A few days after reading Mr. Murphy's letter I was browsing through records at my wife's parents' house and stumbled across an album entitled "Songs by Romberg and Gershwin," sung by none other than Mona Paulee. She sings three songs from Romberg's New Moon and Gershwin's "Somebody Loves Me." The reverse side consists of light classics. The record appeared on the Paris International label, as Yol. 6 in the Music Appreciation Library. The jacket features notes by Sigmund Spaeth, and I would guess that the record was one of those multirecord music-appreciation sets that were so popular a few years back. I don't know if the recordings had appeared somewhere else previously, and there is no date on the album jacket.

Now I'm curious. What *did* happen to Mona Paulee?

Eric W. Johnson
West Haven, Conn.

The last we heard of Ms. Paulee was when she appeared at Blandy Mary in South Pacific at the Berkshire Theater Festival in Stockbridge, Mass., in the early Sixties. Perhaps someone has details of her subsequent career?

To George Murphy's question whether any of the old-time programs such as Firestone, Bell, etc., were recorded, the answer is yes. Back in 1940-44, I built an acoustic-disc recording system using a Rek-o-Kut turntable and RC-20 brush cutter and my own carriage. The quality was and still is as good as the then pressed discs of the day. This machine is still operable, except that I converted it to 33⅓ rpm.

I have recorded selections of those programs featuring Ezio Pinza, Lily Pons, Richard Crooks, Rose Bampton, Oscar Levant, Igor Gorin, and my favorite, Jean Dickenson, and many others. By the way, does anyone know what happened to Jean Dickenson? I wonder if anyone else has had a similar hobby and recorded programs such as these. If anyone cares to communicate with me, I would welcome it.

Henry Maria Lin
26 Weaver Pl.
Hanover, N.J. 07936

You may be interested in knowing that The Firestone Tire & Rubber Company made a contribution of all existing tapes, recordings, musical arrangements, and kinescopes of "The Voice of Firestone" to the New England Conservatory of Music in Boston. They are housed in a section of that institution's headquarters named the Idabelle Firestone Music Library.

The collection by no means includes all of the programs, but it does have quite a number.

Bernard W. Frazier
Director of Public Relations
The Firestone Tire & Rubber Co.
Akron, O.

Gershwin (continued)

In your November "Letters" column, I was interested in the one headed "Gershwin's Gershwin." By now reader Lenius must know that the newly released Vox Box of Gershwin's "serious" music for orchestra contains an excellent performance of *Catfish Row* by Leon-
What you see here is the difference between B·I·C Programmed Turntables and all the others.

Simplicity.
Look underneath the finest, the most expensive automatic turntables from other makers and you'll find more machinery than you see here.

The virtues of simplicity
A modern multiple-play turntable is a complex electro-mechanical device, manufactured to tolerances that turn engineers' hair grey. To give acceptable performance it must operate at levels which approach perfection.

Every gear, cam, lever, pivot, spring, and moving part that can be eliminated eliminates a point of stress, wear, and possible malfunction.

Every part that isn't there eliminates a source of noise, vibration, resonance, and service problems.

Less is more
As so often happens, simplification has bred a more effective, more durable system.

The B·I·C 980 and 960 are the only belt-drive turntables that can play as many as 6 records in series.

The scarlet cam you see above is made of specially formulated, self-lubricating acrylonitrile. It has greater strength, durability, and dimensional stability than the zinc cams used in other machines.

The low-speed 300 RPM motor is quieter than 1800 RPM motors standard in other automatics. In life tests it has operated for the equivalent of 14 years without faltering.

So, the 980 and 960 operate with silent dependability and generate wow, flutter, and rumble numbers any manual would be proud of.

Before you buy any turntable, regardless of price, find out all there is to know about the B·I·C Programmed Turntables. We'll send more information if you write to British Industries, Dept. 1B, Westbury, L.I., N.Y., 11590. Or better yet, see your audio dealer.

When you see the 980 and 960 in action, we think you'll be impressed by what simple machines can do.

This is the 980 with solid state speed control and strobe. About $200.
The 960 is identical except for these two features. About $150.
With an Empire wide response cartridge.

Whether you're into stereo or quad, wide response means better sound. True music reproduction depends upon frequencies well beyond the range of human hearing (20-20,000 Hz). For example: a perfect square wave requires a harmonic span of 10 times the fundamental frequencies recorded. Listening to a wide response cartridge is truly a unique experience. Close your eyes and you'll swear the sound is live.

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<td>Stylus Tip: miniature nude diamond with 0.1 mil tracing radius</td>
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ard Slatkin and the St. Louis Symphony—a better performance than the previous one by the Utah Symphony.

I agree with him on the acoustic version of the Rhapsody in Blue. I have been at RCA for years to reissue it, but to no avail.

The “Jasbo Brown Piano Music” was available years ago in a Victor album titled “The Serious Gershwin,” admirably played by Morton Gould. More recently it was included in William Bolcom’s Noneuch piano collection of Gershwiniana, but the performance is not in the same league with Gould’s (most of Mr. Bolcom’s playing I find most un-Gershwinesque).

The “improvements” with which Gershwin music has been afflicted over the years must be laid to his greedy publishers. Just why this has been done remains a mystery to me, since Gershwin performed the works so often during his lifetime and did not find it necessary to “improve” anything once all was worked out at rehearsals. The depredations done to the concerto, the Second Rhapsody, the Variations on “I Got Rhythm” are inexcusable and irresponsible—but, alas, typical.

Mr. Lenius might very well look into a fine two-piano album by Vero and Jamanis on Connoisseur Society to better hear what Gershwin had in mind when he conceived such works as the Second Rhapsody, the Variations, and the Cuban Overture (all in Gershwin’s own arrangements).

While I did supply the liner notes for the Vox and Connoisseur Society albums, I had nothing to do with the selection of artists or their interpretations and feel that my judgments are reasonably objective.

Edward Jablonski
New York, N.Y.

David Hamilton’s admirable July Gershwin article did not, to my surprise, mention one word about a very fine, sadly neglected opus, Song of the Flame.

In the very late ’20s, Warner Brothers (I believe) made what must have been one of the first color films of a musical, of this fine work. Hopefully there must still be a soundtrack in Hollywood’s archives. If we could hear it, there would be a notable added advantage—hearing the voice of the late distinguished American soprano Alice Gentle, who never made a record although she sang at La Scala, the Metropolitan, and Chicago opera companies. For her many radio programs she used as her theme song “You May Wander Away” from the Gershwin film.

George L. Nyklické
San Francisco, Calif.

Schoenberg Addenda

Regarding David Hamilton’s generally fine Schoenberg discography [September], one can indeed hope to hear—if never actually hear—the complete Genesis Suite. It was recorded on long-deleted Capitol P 8125 by as Stravinsky put it “the brilliant company of the Werner Janssen Symphony” of Los Angeles.

Admittedly, the Suite is a freak, but an interesting one. Shilkret may have been primarily a film composer, he sounds like a good one. Tedesco was not primarily a film composer, but in “Noah’s Ark” he sounds like a bad one. Tansman was a musician held in high regard by Schoenberg himself, his “Adam and Eve” with its chirping froggy forest mimicry, is at least very evocative illustrative writing. Mil-
haud's "Cain and Abel," while characteristically concise, is suitably dramatic, and the echoes of Bach in Toch's "Covenant" are an appropriate finale.

Unfortunately, however, the milieu of Hollywood pervades most of the Genesis Suite. In these two received as works that could stand apart from Stravinsky's "Babel" seem to have been concocted as works that could stand apart from his mind. Only Schoenberg's "Prelude" and "Cain and Abel," while characteristically religious, more permanent.

Unless "a pot of paint (were) flung in the pubic's face with more profusion than probability would suggest or evidence confirm, Charles Rosen's suggestion (["The Controversial Schoenberg," September] that the phrase "a pot of paint flung in the public face" were indeed used in the following year of 1906, it was by someone singularly lacking in originality. For in 1878 James McNeill Whistler brought a libel suit against the critic John Ruskin, who in 1877 had denounced the painter's Nocturne in Black and Gold: The Falling Rocket, a stunning study of fireworks over the London resort Cremorne Gardens, as "a pot of paint flung in the public face" (Encyclopedia Britannica, eleventh edition).

A long trial ensued (at one point of which the painting was brought in evidence inadvertently upside down—demonstrating as well the antiquity of this favorite canard). The issue was not entirely an aesthetic one. The painting was on sale at the Grosvenor Gallery for two hundred guineas, a price that the influential Ruskin viewed as exorbitant—a view with obvious implications for Whistler's career. Controversy raged long afterward out of court with, of course, Whistler's more free and forward-looking aesthetic ultimately winning.

He also won in court. He was awarded one farthing damages.

Charles Rosen's "The Composition of the Genesis Suite" in the October High Fidelity.

Who-Stokowski?

In the footnote to R. D. Darrell's November feature review "The Hypen-
ated Stokowski" (p. 91), the Rheingold symphonic synthesis is attributed—through no fault of the author—to "Bach-Stokowski." That undoubtedly surprises Mr. Stokowski as much as it would have surprised Messrs. Bach and Wagner.

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January 1975
Chicago Goes Quad with Levine and RCA

The distinction of issuing the first four-channel recordings by the Chicago Symphony will go to RCA early in 1975, the result of sessions last July when Thomas Z. Shepard, new boss of Red Seal recording, joined James Levine, music director of the Ravinia Festival, to tape the Mahler Fourth Symphony in sixteen tracks of what proved in playback to be fairly wild and wonderful sound.

The irony was that Sir Georg Solti, wartime boss of the ensemble, had wanted to do a new Mahler Fourth for Decca/London, feeling that his earlier account (with the Amsterdam Concertgebouw) no longer represented his views of the music and really did not fit with the more recent material in his complete edition. London thought the older disc was still prime Solti, and it stayed.

Levine's Mahler Fourth (planned as the beginning of a cycle, with various orchestras) is his own, resembling the Solti of neither past nor present, although like much of Levine's work it shows traces of his mentor, George Szell. Judith Blegen, who had sung the finale recently with Levine, appeared briefly at the first session, the epitome of cool professionalism, sang like an angel, and found her job was over before she really got fully into her stride.

In his second summer at Ravinia, Levine had developed an easy working relationship with the orchestra in which he knew what everyone could be expected to do and, without difficulty, drew on the full available resources. Shepard, who was mixing some two dozen microphones into the sixteen channels on his 15-ips, two-inch master tape, was working close to the orchestra, minimizing the highly reverberant quality of Medinah Temple and spotlighting the virtuosity of the first chairs.

Old Ties Retained. This was his initial Chicago session, but the orchestra's freelance recording policy has brought it before RCA microphones regularly in the fifteen years since, with Fritz Reiner at the helm, it was a mainstay of the RCA catalogue. Indeed the orchestra's first serious multichannel recording was done at Medinah for RCA in 1968 with Leopold Stokowski as guest conductor. There was a not inappropriate note of poetic justice that Shepard should take it from there.

Because of Miss Blegen's commitments, the finale was recorded first—no problem, since the work was completely ready and had been played at a Ravinia concert only a few days earlier. About an hour went to moving microphones and fussing with balances, and there was a problem with the harp, since its mike covered the area in which the instrument stood rather than the space it occupied when tipped back into playing position. After that the finale was quickly committed to tape in alternate versions (all of them, I thought, good enough to release), and Levine began methodically through the purely instrumental portions of the score.

I have seldom seen a recording session more relaxed, in the sense not that anything sloppy was permitted (au contraire!), but that all parties knew their job and were supremely competent to do it well.

Especially significant was the Shepard-Levine relationship, which reflected fundamental confidence in and respect for one another. Solti never leaves a session without hearing a mixed master tape, while Levine departed on the second day after hearing only approximate two- and four-channel mixdowns of the available material. Shepard would do the final mixing later in the year in a studio situation where he could play and replay and blend and reblend until he had it all just right, and Levine knew that if he was not happy with the results, they would be corrected until he was happy. The thing to do in the sessions was to get the basic materials of a great record on those sixteen tracks.

The Real "Chicago Sound"? Even the rough mix sounded tremendous, and this served to excite the musicianship and pride of the orchestra members, who were playing their hearts out for posterity because every playback convinced them that the warmth and glory of the Chicago Symphony were really coming through. The bright, assertive sound of some recent Chicago Symphony recordings has been a subject of some comment among members of the orchestra, who can respect the effect but do not always find it a mirror of the manner in which they believe they play. This time the legacy of Frederick Stock (whose thirty-seven-season record in Chicago was recently broken by Eugene Ormandy in Philadelphia), the strong lingering Reiner tradition, as well as the Solti-isms that have crept into their musical speech, all were there on tape.

For Levine the sixteen channels were an invitation to probe deeply into Mahler's miraculous counterpoint, to bring out all the wry comments and felicities of detail that can be found among the moving voices. He had made a special study of contrasting dynamics, which pro-
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EDWARD GREENFIELD

engineers had a fine time surrounding Ruggero Raimondi (Massimiliano) with a neat acoustic box, a sort of echo chamber that made him sound aptly sepulchral.

Carlo Bergonzi was singing the role of Carlo (the fourth principal in the cast being baritone Piero Cappuccilli), and his contribution to I Masnadieri marked only the start of a sequence of sessions for Philips. As a major project, he is recording all the tenor arias from the Verdi operas, and the results will ultimately appear on three full LPs. Again the New Philharmonia accompanies, this time with Nello Santi conducting.

Concertos by Perahia. Raimondi's box added to Philips' problems of coordination, but that was as nothing to the extra problems when the CBS studios in central London (Whitmore Street) were used for Murray Perahia's first concerto recording. With Neville Marriner and the Academy of St. Martin's (on this occasion thirty-eight strong), he recorded the two numbered Mendelssohn piano concertos. Admittedly the studio, which is used mainly for pop sessions, had earlier seen a Scott Joplin project recorded with no fewer than seventy-five players squeezed in, but this Mendelssohn was counted an even greater challenge by producer Andrew Kazdin and his engineers. But in the end, with screens strategically placed between sections, he got the results he wanted, even if the players found it hard not being able to see and hear each other normally.

A Timely Siege. As I mentioned last time, the EMI summer opera schedule included two Rossini operas with Beverly Sills, now an exclusive EMI artist. The rarity was The Siege of Corinth, and the recording sessions could hardly have been more aptly timed. The troubles in Cyprus were headline news every day, and here was an opera that has Turkish armies fighting Greek armies in earnest. Someone suggested that it would be good publicity to point out the coincidence to the press. "Not on your life," said producer John Mordler. "Some idiot might toss in a bomb.

Not that any fanatic would easily find the EMI hideout in Tooting Graveney, the church where a fair proportion of EMI recordings are made. The first time I went there, it had my taxi driver puzzling for half an hour while we drove round and round.

As it proved, the main hazards of this Siege were delicate ones of ornamentation, on which conductor Thomas Schippers had strong views. Luckily he had keen professionals working with him—not only Sills, but tenor Harry Theyard, Shirley Verrett, and Justino Diaz. Naturally the recording, with the London Symphony, is geared to the projected Met production. Edward Greenfield
DID YOU KNOW THAT WHERE YOU LIVE MAKES A DIFFERENCE TO YOUR RECORDS?

Too humid, too dry, too dusty are just too much for records to perform the way they were intended. And when you add the variables of the condition of records, types of recording equipment, styli, cartridges, and so on, you soon realize there's no single record care device that can be all things to all records. No matter what anyone tells you.

That's why Watts — and Watts alone — has a complete selection of record care products. You simply select the Watts record care equipment that fits your specific situation to keep your new records new and revitalize the old ones.

Unlike the johnny-come-lately companies with one or two "do-it-all" record care products, Watts really works. Each Watts device was developed to solve a particular record care problem. Then they were introduced to the public only after exhaustive research and testing in broadcasting and recording studios.

For the life of your records and stylus, insist on Watts record care equipment and kits. They're available at hi-fi dealers and record counters everywhere.

Which record cleaner do you give the edge to—Discwasher or the Watts Dust Bug?—Kevin Finn, Brooklyn, N.Y.

They don't do the same thing. The Dust Bug rides on the record while it is playing and does an excellent job of removing loose dust. The Discwasher is used (before and/or after the record is played) to apply an antistatic solvent and then remove both it and any foreign matter loosened by the solvent. It therefore is more effective on such things as finger marks, but of course won't remove any dust that alights while the record is playing. So the Discwasher is comparable not to Watts's Dust Bug, but to Watts's Preener; and of these two—the Preener and the Discwasher—it's hard to pick the better. Both are far superior to most cleaning devices and, once you learn to use them correctly (which isn't hard), will do a fine job. We do like the Discwasher's styling, however, since its handle includes a cubbyhole for storage of the fluid bottle, keeping everything together in one place.

I plan to purchase either the Pickering [XV-15] 750E or 1200E cartridge. The 1200E will cost me only about $10 more. Which model is better?—Mario A. Monteleone, Staten Island, N.Y.

They're very similar. The higher "DCF"-number Pickering has assigned to the more expensive cartridge indicates greater compliance and ability to track high groove velocities at low tracking forces. But Pickering's own recommendations of turntable stiffness and arm models appropriate for the two stylus assemblies (the XV-15 cartridge body is essentially identical) confirm that they are just about interchangeable. So does our own experience with this series. If you're using a manual player with a fine arm, the 1200E might be marginally better, if it's a changer with a mechanical trip for the changing mechanism, it might be a hair safer to stay with the slightly less compliant 750E stylus.

Now that the Scott digital FM tuner is available once again as the T-33S, I wonder how you people think it compares with the Heath model. Both seem to be excellent performers, but I'm wondering which makes better use of the convenience aspect of digital tuning.—Norman Golding, Cohoes, N.Y.

Heath offers more flexibility in its range of front-panel controls, but we find the choice in tuning itself to be a tossup about which you'll have to make up your own mind. Heath has unidirectional scan with variable scan rate; Scott has bidirectional scan (a big convenience advantage over unidirectional), but the scan rate is fixed. The Heath scan will stop at any station or any stereo station, the Scott will stop at stations, stereo stations, or empty channels, depending on how it is set. The Heath has three slots for prepunched cards, with pushbutton selection for each; the Scott has only one card slot. The Heath has a keyboard selector, which the Scott doesn't. In use we find that the scan mode is most efficient on the Scott for all but a few favorite stations, for which you can make cards. We find ourselves setting up the Heath with cards for our three top-favorite stations and using the keyboard to locate others. The Heath's nonreversing scan mode is less versatile and less convenient for most purposes than either its own keyboard or the Scott's scan, in our opinion.

Would it be advisable to hook a Dolby unit in conjunction with a DBX [noise-reduction] unit? For excessively noisy record surfaces and especially hissy tapes, would there be any benefit from re-recording it a number of times with Dolby encoding and decoding in each step?—James T. Blake, APO, San Francisco.

We'll say it again: Dolby is not the slightest help in removing noise that already is in an unprocessed signal. In fact each Dolby re-recording will add some more noise. If you must re-record anyway, and start out with Dolby processing, you have less noise to begin with and hence can "afford" the increase better. But don't decode and re-encode for each copy; if you make "straight"—and therefore encoded—copies of the encoded original and decode only for final playback, your noise accumulation should be at minimum.)

Now about using both Dolby and DBX. Theoretically any of these "closed-loop" systems (A) are used together as long as you sequence the equipment correctly. If, for example, you apply DBX compression first and then Dolby encoding, the Dolby decoding must come ahead of the DBX expansion in playback. (If you want to use one of these closed-loop systems in tandem with an open-ended one—say, Burwen or DNL—the open-ended one should be applied "outside" the closed loop: that is, before encoding or compression, or after decoding or expansion.) The chances of undesirable audible side effects—for example "breathing" or "pumping"—are increased, however, if you add more noise-reduction circuitry, and the returns diminish as you achieve dynamic ranges beyond the requirements of the job at hand.

I have a Panasonic Series 44 CD-4 component system (Model 5070). I had some problems with the cartridge and wanted to replace it with a new CD-4 magnetic one, but the Panasonic service center says I can replace it only with another Panasonic cartridge. The dealer never explained to me that the unit had the semiconductor type of cartridge. I think this really is a breach of confidence on the part of Panasonic and the dealer. Is there anything I can do?—Alain Berrebi, Miami Beach, Fla.

First, let's set the record straight. The basic problem is not the semiconductor type of cartridge itself, but that the Model 5070 is not what we would call a "component system" but has no conventional preamp. That's why the unit won't work with the magnetic cartridge, which needs preamplification. Frankly we doubt that misrepresentation (we assume that's what you mean by a "breach of confidence") literally was involved, the word "component" is subject to a good deal of popular abuse, as your letter demonstrates. One should not expect an entire quadrophonic system (including record changer, FM, AM, and four speakers), built to normal component standards, at that price.

We don't know of any phon preamp designed to handle the CD-4 carrier as well as the audio. You could use an outboard CD-4 demodulator (which will include preamp circuitry, of course) feeding into the tape-monitor inputs, since the unit appears to have no aux. This will result in a relatively expensive add-on to an otherwise inexpensive system; the only practical alternative would appear to be the sale of the 5070 and the investment of the proceeds in real componentry.

A friend from California has LWE "electronic suspension" loudspeakers—large floor models that sound surprisingly good. Nobody here seems to know anything about the manufacturers. Who are they?—Ed Johnson, Chevy Chase, Md.

The company (based in Texas) went out of business before we could test the product. It has just come back in, but without the large model you speak of, and its products are being offered through C&M Laboratories, 327 Connecticut Ave., Norwalk, Conn. 06854.

I think a fellow has to read between the lines to find out whether you really enjoyed testing a certain piece of equipment or not.—Bernard J. Van Dyke, Lewiston, Idaho.

Should a report express personal emotion or explain performance results? We try to be rather circumspect about our feelings—and with good reason. Sometimes equipment that is a joy to test is not all that good at satisfying the needs of the consumer, and undue enthusiasm might make a unit seem better than it is. Conversely, most budget equipment simply isn't as much fun to test as the more glamorous products we deal with, but readers on limited budgets would have a right to resent it if we didn't approach these products on their own merits. We try to reserve our enthusiasm for the equipment that earns it through performance and value rather than through the amount of enjoyment we had in testing it.
The Non-Giant Economy Size.

Unlike so many of our giant competition, Sherwood doesn't make a full line of audio equipment. No radios. No tape decks. No headphones. No turntables. Versatility may never be our claim to fame.

But the limited scope of our output does have benefits. We can concentrate on refining each of our products, engineering them for maximum performance.

A case in point is the S7310. It has minimum RMS power output @ 0.5% total harmonic distortion, both channels driven, of 38 watts per channel @ 8 ohms, 20-20,000 Hz. Which means that this receiver outpowers all other units in its price range. With exceptional selectivity and sensitivity ratings.

We also utilize only the finest and most advanced of proved componentry: Dual gate MOS FET's and phase lock loop circuitry, the latest integrated circuitry and Solid-State FM IF Ceramic Filtering devices. Equally important, we've eliminated the gimmickry and gadgets that add nothing to the equipment except a potential for malfunction.

In short, if you look at receivers that do as much as Sherwood's S7310, they probably cost more than $369.95. Or, if they cost the same, do less. Which only proves that, in hi-fidelity manufacturing, good things come from small packagers.

Sherwood Electronic Laboratories
4300 N. California
Chicago, Illinois 60618

Sherwood.
The word is getting around.
Film Scores on Disc: Another Source

Interest in preserving the work of film-score composers seems to be growing all the time. Last fall we learned of the formation (by John Steven Lasher) of yet another record company devoted primarily to the subject: Entr'Acte Recording Society, Inc. (P.O. Box 2319, Chicago, Ill. 60690). Its first offering, Bernard Herrmann's score for Sisters, should be available by the time you read this.

We understand that Entr'Acte will try not to duplicate the work of the Collection of Film Music (founded by Elmer Bernstein, who wrote the well-received treatise on film scores for our July 1972 issue), another specialist in the field but by no means the only other company with a significant film-score catalogue. Membership in Entr'Acte will cost $5.00 per year and include four issues of a newsletter called "Click-Track." The disc offerings will have cover art and liner notes and will be pressed on the best material Entr'Acte can obtain. Music on the discs is expected to include scores of the "acknowledged masters" (Rózsa, Waxman, Antheil, Young, et al.), both in new releases and in some reissues of past deletions by other labels, plus (where access to original masters can be obtained) the film work of relatively neglected contemporary composers like Toch, Castelnuovo, Honegger, Axt, and Webb, to whom the cinematic medium is not a major preoccupation.

Tannoy Joins Harman

The acquisition of the Tannoy Group, British-based loudspeaker manufacturers, by Harman International (parent company of Harman-Kardon and JBL)—ruined for some months—finally became a reality last fall. The formal announcement says some $750,000 was paid for outright ownership of Tannoy, which is expected to retain its present identity and management within the Harman group, much as Harman-Kardon and JBL have.

Harman-Tannoy's first public appearance came at the New York High Fidelity Music Show in October and presented some surprises. There were changes in the loudspeaker line, but the attention-getters were in new product areas: headphones and turntables. The headset, an electrostatic, is called the Micromonitor TMX-1 and will sell for $129. Four turntables were introduced: the belt-drive TM-22 ($168) and TM-33 ($198) and the direct-drive TM-44DD ($267) and TM-55DD ($327).
Introducing the KLH Research Classic Four Loudspeaker.

If you think that’s a lot of numbers, wait’ll you hear the number it does on your ears!

KLH loudspeakers usually need very little introduction. But the Classic Four is so radically different that it may take a little explaining. For one thing, it incorporates a high frequency dispersion concept that not only gives music a new dimension but also gives you greater freedom as a listener. What we’ve done is build two tweeters into the Classic Four in a mathematically calculated and meticulously tested configuration. The angle of the tweeters creates incredibly wide dispersion so that you hear perfect high frequency sound no matter where you sit in the listening room. In addition, this amazingly accurate means of sound dispersion allows you greater flexibility in the placement of the speakers. But most important, it brings a new life and airiness to your recorded music. Each instrument is perfectly defined and recognizable — regardless if you’re sitting on axis or not.

The Classic Four has a typical KLH mid-range — ultra smooth and silky. And, of course, KLH has always had a reputation for getting an inordinate amount of bottom out of modest sized loudspeakers. But the Classic Four’s bass response is clearly a step beyond anything you’d ever expect from a bookshelf type speaker. It’s new low resonance, long throw piston-action 12” woofer creates a sound that is so accurate and full of life that it simply defies easy description.

The Classic Four is at selected KLH dealers now. It comes with a removable grille cover in a choice of two decorator colors. It costs $170. And if you think that’s a big number, wait’ll you hear the number it does on your ears!

The Classic Four. Another innovative product from KLH Research — a new era in audio.

For more information, write to KLH Research & Development Corp., 30 Cross St., Cambridge, Mass. 02139.
New amp crowns Crown line

Latest in the series of blockbuster power amplifiers from Crown International is the M-600, rated at less than 0.05% harmonic or intermodulation distortion from DC (0 Hz) to 20 kHz for 600 watts per channel into 8-ohm loads or 1,000 into 4 ohms. Protective circuitry similar to that in the Crown DC-300A allows the amp to be used—or misused—safely with virtually any type of load. Normal output is 70 volts unbalanced; a plug-in converter allows two M-600s to be used (as an M-2000) in a balanced 140-volt configuration for an incredible 2,000 watts continuous power (or 3.2 kilowatts music power!) per channel into 8 ohms. A plug-in input circuit board can be tailored for preamp, equalization, servo feedback, or similar purposes depending on the amp’s end use. The M-600 costs $1,495.

Hitachi turntable a “complete” CD-4 add-on

In its two-speed (33 and 45) PS-14 turntable ensemble Hitachi combines a high-spec hysteresis belt-drive turntable, a full-adjustment arm, a base with hinged dust cover, a magnetic pickup with Shibata stylus capable of reproducing CD-4 Quadradiscs, a CD-4 demodulator-preamp, and outputs for either high-level feeds (of stereo or quad) or low-level feeds to a phono preamp (of stereo or matrixed quad only). Thus, contained in one unit are all the needed elements for adding the CD-4 capability to quad systems, as well as playing all other current types of discs. The cartridge shell is removable (you can interchange pickups if you have extra shells); the single-play turntable offers automated cueing and arm return. The PS-14 sells for $349.95.

Magnavox adds new receivers

The Model 1570 stereo receiver, shown here, is among the MX-series models added to Magnavox’s current component line. It is rated for 35 watts per channel (at 0.5% THD, full bandwidth, into 8 ohms) and features a speaker-matrix switch to simulate quad by using the remote speakers at the back of the main listening room. The tuner section has, among other things, a meter that is switchable to read either signal strength or center tuning and what Magnavox calls ASNC, a circuit that automatically reduces high-end separation on weak stereo stations to cancel noise. The 1570 sells for $399.95.

A Swedish beachhead in California

In 1970 we made mention of an interesting Swedish company, Sonab, which was offering “omnidirectional” speakers designed by engineer Stig Carlsson. Now the company has established a U.S. subsidiary (Sonab Electronics Corp., 1185 Chess Dr., Foster City, Calif. 94404) for distribution in selected American markets. Illustrated are the OA-12 (left background, $199 each), using Carlsson’s “ortho acoustic” principle, and two bass-reflex systems: the OA-14 (right background, $259 each) and the OD-11 (foreground, $139 each).

Cosmetic update for speaker systems

Republic Systems Corp. (9160 S. Green St., Chicago, Ill. 60620) is offering kits that will dress existing speaker systems in the latest sculptured-foam fashion. The acoustically transparent flexible urethane foam, which comes in panels measuring 15 by 8 or 14 by 24 inches, can be cut with regular household shears to fit your speakers, replacing the original grille material and held in place by Velcro fastenings. Initially the foam is available in black, with parallel “fluting” (the material held by the model), but Republic hopes to add other options. Expected retail price of a pair of panels is about $5 in the 8-inch width, about $12 for the larger sheet.
He listens to it with AR speakers

A lot of celebrated musicians pay AR speaker systems the finest compliment possible: they use them at home.

Karl Böhm, who conducts the most distinguished orchestras all over the world, has AR speakers at home. Conductors Seiji Ozawa and Herbert von Karajan, and baritone Dietrich Fischer-Dieskau listen with AR speakers. So do jazz trumpeter Miles Davis and singer Judy Collins.

Many musicians would seem to agree with the AR philosophy of accurate—as opposed to “pleasant”—sound reproduction. After all, the aim of a speaker system is to give you the music and let you forget the speakers.

Try it soon. There's a five-year guarantee that your AR speakers will perform as well as Karl Böhm's.

Karl Böhm chose the AR-3a: $295

The AR-7: almost as good: $75

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January 1975
WNCN, WEFM, WGKA, WONO, and You

The call letters in the above head, for radio stations, mostly FM, from New York City, Chicago, Atlanta, and Syracuse respectively, tell a story of great import to the classical music radio listener. It is a story of the unsuspected power that that listener has—when he chooses to use it.

- Several years ago Robert Strauss, now chairman of the Democratic National Committee, bought WGKA-AM and FM in Atlanta with the intention of changing its format from classical to wallpaper. A few good-music lovers got together and, calling themselves the Citizens Committee to Preserve the Voice of the Arts in Atlanta, began to defend the classics from the broadcaster—and, eventually, from the Federal Communications Commission itself, which traditionally held the entertainment format question irrelevant in approving licenses or transfers. Still, when the committee forced the new owner to face an expensive (up to $50,000) and time-consuming (perhaps two years) FCC hearing, Strauss sold the stations to GCC Communications. In the end, both Strauss and GCC contributed enough money to the local noncommercial classical FM station to enable it to upgrade its equipment and augment its signal—so that WGKA-FM could have a better rationale for dropping the classics; which it did—but at least WGKA-AM had to remain classical.

- By the end of 1970, Syracuse classical station WONO was lugging a debt, accumulated over a seven-year period, of $67,000. Since its annual gross was only $35,000, something drastic had to be done. That something was, in 1971, a sale to a Bruce Houston. When word got out that Houston intended to drop WONO's classical programming (and his last name, also the name of his company, gave rise to rumors that a bunch of Texans were invading the New York town intending to demolish its cultural airwaves), a citizens committee, Friends of WONO, sprang up in Syracuse to oppose the sale. Naturally, the FCC ruled against the committee, but a Court of Appeals decision actually enjoined the commission to reconsider the community's interest. The sale did not go through. Friends of WONO proved to be real friends, raising $35,000 within a week; it continues to raise about $20,000 per year, enough to allow the station gradually to pay off its debt and show a modest profit. WONO is today partly owned by WCRB, a Boston station committed to classical music.

- Last October 5, New York City's only full-time classical station, WNCN, was planning to switch to a rock format, dramatically timed to coincide with the city's High Fidelity Show. New equipment had been purchased, the old staff exiled (except for four $15,000-per-year announcers, as well as four part-timers, all of whom were protected by a union contract), and a new staff hired. About seven hours before the scheduled change, an injunction stayed its execution. Again, a citizens committee (the WNCN Listener's Guild) had arisen to rescue Beethoven. Actually two committees, one in Connecticut, where the station also has loyal listeners. Some still insist three, since William F. Buckley Jr., chairman of the board of Starr Broadcasting, which owns WNCN, organized a "Save WNCN" campaign that in effect siphoned off over half a million dollars worth of an aroused public's pledges, to be given to any station that would please take those expensive classically-sounding announcers, as well as WNCN's record library and cultural commitment, off Starr's hands. And one might as well include a fourth committee, for it was a Citizens Committee to Save WEFM whose activities in Chicago brought about a decision last October 4—by the U.S. Court of Appeals for the District of Columbia—which could eventually be the salvation of many American classics-loving radio fans.

It was a scenario worthy to feature Hollywood's cavalry, for on October 3 the FCC had (naturally) turned down the Listener's Guild's application for a stay, and WNCN was to change both its call letters and format the first minute of October 5. The Court of Appeals was the cavalry; it granted the stay late in the afternoon of October 4, asking the Guild and the FCC to submit memoranda showing how that day's WEFM decision related to the WNCN case. What was that startling WEFM decision?

- For years Zenith Radio Corporation had run Chicago's WEFM-FM as an avowed money-losing classical station. A few years ago Zenith sold the station, subject of course to any unforeseen contingencies, to—-GCC Communications, the same buyer as in the Atlanta case. It was no secret that the classics would be scrapped. Chicago, after all, had perhaps the country's most successful classical station. WFMTH. There was, of

* A sale of WFMT itself was kiboshed by a citizens committee. In 1970, owner Bernard Jacobs became disabled by multiple sclerosis and put the station on the market for $1.1 million. When he sold it to the Chicago Tribune/WGN combine, a Citizens Committee to Save WFMT sprang up. Although during its two years of operating WFMT, WGN not only showed every intention of maintaining the classical station's independence (and employees), never pressuring its personnel to modify the format, but also gave it new studios, the committee remained suspicious of the combine's corporate image. Faced with an FCC hearing on the committee's charges of too much concentration of control
course, no question but that the FCC would approve the sale. But there was an unforeseen contingency, the citizens committee. In order to ease its way, GCC again donated funds to a struggling classical competitor, this time WNIB, to allow it to upgrade its equipment and signal. And the sale did slide through the FCC and a three-judge panel of the Court of Appeals. Then came the full Court of Appeals' shocker:

We think it axiomatic that preservation of a format that would otherwise disappear, although economically and technically viable and preferred by a significant number of listeners, is generally in the public interest.

In other words, the court held that the FCC could no longer automatically exclude a consideration of format when making its decisions. And since classical music is among the rarest formats on the air, it would seem as though a broadcaster would have to on now have to scale an especially high wall if he wanted to toss it out of the city. (The latest word is that the FCC is planning an appeal to the Supreme Court.)

WNCN's story still remains a mystery in early November, and as I write this it is raising the biggest hullabaloo in New York since the demise of the nickel subway ride. For years WNCN was the New York outlet of the late Concert Network. It was then sold to L.W. Frohlich, an advertising man who made it part of a National Science Network. WNCN was that network's only classical station, the others being two rockers in California and a middle-of-the-reader in Chicago. Although in those days few FM stations of any sort were able to make a profit, WNCN was apparently in better financial shape than the other Science Network stations. For you could hardly ever find its station manager in New York; he always seemed to be away, putting out tires at the other stations. And if old rumors are correct, most of the network's managerial expenses were borne by WNCN so that the other stations' finances wouldn't look worse than they were.

When Frohlich died, the National Science Network put WNCN on the market. Price: $2 million. When you consider that two New York AM stations, WINS and WMGM, had recently been sold for $10.5 million apiece, that the New York Times was asking at least $8 million for its classical music radio operation, WQXR-FM, and that the asking price for an FM channel in New York at the time was some $3 million, this looked quite a bargain.

To lighten the load even further, the seller was ready to loan half the purchase price to the buyer—although there would be a bank around somewhere that would be prepared to loan the other half to a substantial purchaser? Who, in other words, would like to enter the New York market at a one-third discount, no money down? Peter and Michael Starr did, even if it meant coming in, at least temporarily, saddled with a classical station. Declaring a continuity of format, Starr Broadcasting—armed with a $1 million loan from the Chemical Bank in New Orleans—bought WNCN in 1973. In order to secure the loan, Starr assured the bank in October 1972 that they would change "the present classical format featuring obscure and new releases" to a "top 100 classical format featuring thematic programs which will allow more time for advertising." Incidentally, two years later the Starr brothers would sign an affidavit attesting that "no discussions were held at that time [spring of 1972] among the three mentioned top management personnel [Buckley and the two Starks] of a possible (let alone a probable or a definite) change in format in the future, nor was any change then contemplated by any of the three."

Alan Rich, former HF reviewer and now New York magazine critic, charged in the latter publication that Starr had planned to kill WNCN's classical programming altogether even as it was buying the station. Chairman Bill, in the same magazine, denied it eloquently. (My own information is that there were high-level contingency discussions, not necessarily including the Buckley-loving Buckley, even before the sale.) Starr brought in some crack salesmen, either to try to make the station profitable or, as some have charged, give the appearance they were trying. At any rate, reports have it that these salesmen couldn't stand to listen to the music their station was broadcasting. Under analogous circumstances, I know I wouldn't buy a can of tuna fish.

At 11:00 in the morning of November 7 WNCN interrupted Mozart's Requiem to play Chuck Berry's Roll Over Beethoven, and became the rock station WQIV. The Listener's Guild vowed to continue its fight.

But in Atlanta WGKA-AM is still broadcasting the classics. In Syracuse so is WONO. And in Chicago, WFEM-FM has been programming classical music under a court stay for years. In each case the broadcaster tried to discard the classics. But in each case a few aroused listeners found that with enough noise they could drown out the interference threatening a good-music signal. The quality of an audience's taste has come to be as important as the size of a businessman's profit in determining what stays on the air. Keep that in mind, music lover, if a similar situation ever arises in your community. You've got more power than you may think.

And if you should ever want to buy a classical station yourself, please do it for love. Go make your fortune someplace else. There already are enough sharks in these waters. And look out for those dolphins.

Next month we will pay particular attention to the tape recording scene. There have been articles in many publications comparing the various tape formats, but now there is a possible new format in the offing. We will cover them all in OPEN-REEL, CASSETTE, CARTRIDGE, OR BASF? For those of you who would like to make better use of our lab test reports in all current tape formats, there will be a piece on HOW TO INTERPRET OUR TAPE RECORDER TESTS. And just in case you thought that the Dolby system was the panacea for all your tape problems, we will discuss THE DOLBY PROBLEM.
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THE ALL NEW REVOX 700 SERIES
Stereo Tape Recorder A700  Digital Stereo Tuner/Pre-amplifier A720  Power Amplifier A722

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For other countries; Revox International, Regensdorf 8105ZH Althardstrasse 146, Switzerland.
Concluding a two-part discography that began last month with Glinka to Tchaikovsky

NIKOLAI RIMSKY-KORSAKOV
(1844-1908)

The Maid of Pskov (1872)
The date here is somewhat deceptive, for Rimsky revised his first opera twice, and the second revision, completed in 1893, is what we hear on this recording. He also wrote a prologue, first performed in 1898 with the second revision and later separately as a vehicle for Chaliapin; it has not been recorded.

The piece concerns the entrance into Pskov of Ivan the Terrible after his capture of Novgorod, and his discovery there of his daughter Olga by the Boyarinina Vera Sheloga. Pskov is thereby saved the usual fate at the hands of Ivan's guard (the Oprichniki again, a nasty lot), but Olga's love for Tucha, a young freeman who will not submit to the tsar, leads to tragedy.

The music has only hints of the exoticism of much later Rimsky, but there is in it an attempt to write scenes of personal drama of a more realistic sort that is in itself interesting, and at times it hints at harmonic directions the composer never really followed. In the early portions it is not very successful; after a raucous overture, the dialogue scenes constantly fall into conventional patterns, and the only strong section is a bell-and-bonfire crowd scene, which must be rousing in the theater. With the entrance of Ivan about halfway through, the writing becomes more personal and intense, and the final interview between Ivan and Olga is an excellent scene. Not a great work, but if one considers that it is a first effort, revised or not, it comes up pretty strong.

The Bolshoi performance, on Russian Melodiya 019333/8 (mono, three discs), is splendid. A soprano otherwise unknown to me, Shumilova, gives an extraordinary performance as Olga; she has a slightly sharp but well-equalized lyric voice with a free, spinning upper range, and sings with sincerity and passion. The Ivan is Pirogov, an altogether superior performer—the voice is powerful and beautiful, the technique sophisticated, the interpretation of vitality and stature. Nelep also does his best work here; the writing is not very subtle, and he just sings out strongly. A sturdy dramatic baritone, Shchegolkov, takes the other major role, and, as is usually the case on these older Bolshoi recordings, the character roles are very effectively assumed.

Good orchestral and choral work, under Sakharov, and the sound is decent, though the soloists are often very close, and Nelep picks up hints of distortion here and there.

May Night (1878)
This is the first of two operas Rimsky drew from Gogol's collection of folktales set in the Ukrainian village of Dikanka. It has a simple, not to say simple-minded, argument about innocent young lovers, lecherous and ridiculous elders and officials, and the obligatory water nymphs. At least these water nymphs surface only
Once a year, in the spring, like certain toads. Sopranos, of course.

Fortunately, Rimsky does not overblow the material, though in the first act he overextends it a trifle. He makes extensive and apposite use of Ukrainian folk melodies, gives a couple of melty, lovely serenades to his young tenor hero, and makes genuinely amusing caricatures out of the opposition. No use pretending May Night is grand or important, but it is good-hearted, cheerful, and pretty.

The Bolshoi performance on MK 05404/9 (mono, three discs) is delightful. There is exquisite orchestral playing under Nebolsin, and Lemeshev is at his best as Levko, which means lyric tenorizing of real polish and ample strength. Borisenko has a rich, solid mezzo sound for the ingenue lead (a nice change from the simpery soprano customary in such roles), and Sergei Krasovsky is a nimble, black-toned Elder. In the tenor buffo part of the Distiller, Shevtsov is actually funny—revolutionary. The sound is full and warm, the best I've heard from MK. Several cuts are made in the last act: otherwise the performance is complete.

The Snow Maiden (1881)

This is the opera with which Rimsky is generally considered to have come into his own; Ostrovsky's drama about the beautiful but frigid daughter of Fairy Spring and Father Frost, who discovers human love and brings the sun-god Yarilo back to the frozen kingdom of Berendey but must sacrifice her life to do so, was Rimsky's first plunge into the pantheistic lore that was to produce his best music.

It is a touching legend, and there is much of beauty and value in the score. But Rimsky's editorial self-discipline and compositional shrewdness were insufficiently developed; there is too much unnecessary material, and too many of the sections are far overextended. The last act is lovely throughout and glorious at the close, and along the way there are many sections that, taken individually, are very winning. But they are separated by too many patches of perfunctory recitative and songs and choruses about nothing much—one's interest rises and falls as matters creep along over ten LP sides. The lengthy woodland prologue is dull and foolish, twitting and mooning endlessly about the sprigs and birdsies, and has put me in a foul mood for the rest every time I have heard it. A good, full disc of excerpts would be a welcome addition to the catalogue.

There have been two recordings, a Bolshoi performance (MK 217E, mono, five discs) and a Belgrade production (London XLLA 45, mono, five discs; like the Belgrade Life for the Tsar, this has been reissued recently on English Decca's Ace of Diamonds label—GOS 642/5, stereo, four discs). As is usual with competitive issues in these series, the Bolshoi is the better performance. The major difference is simply one of musical grasp—the Bolshoi ensemble and soloists are almost without exception on firmer ground rhythmically and in terms of shaping and coloring their music, and Moscow's Svetlanova is assuredly a more incisive conductor than Belgrade's Banovitch.

Among the soloists, the Bolshoi Snow Maiden and Tsar Berendey (Firsova and Kozlovsky) are clearly superior to their Belgrade counterparts (Jankovich and Andrashevich) in these important parts. The other principals (mezzos Borisenko and Avdeyeva, soprano Vishnevskaya, baritone Galkin, and bass Krivchenya for MK; mezzos Tzveych and Malinovych, soprano Heybalova, baritone Popovich, and bass Changelovich for London) are more evenly matched from a vocal viewpoint, and in one or two cases it is possible to prefer the London singer.

Both recordings are complete—in fact, at one or two spots more inclusive than the Bessel vocal score. London's sound and surfaces are markedly better, an important point for this work, and it should be noted that nothing about the performance is catastrophic; for collectors interested in the work and unable to locate the MK, or for whom the sound is really crucial, it is an acceptable alternative.

Christmas Eve (1895)

This opera is taken from the same Gogol story set by Tchaikovsky in Cherivichki. It far surpasses Tchaikovsky's work and is a magical little piece. I say "little," because the tale of the Ukrainian blacksmith who loves the disastrous village beauty, and with the aid of a devil fetics for her a coveted pair of slippers from the tsaritsa herself, is very much on the human scale. But though the picture of village life and the folk-character portraits are affectionately and wittily drawn, there is nothing little in Rimsky's treatment of the fantasy elements. Where Tchaikovsky provides a couple of mild interludes for the blacksmith's supernatural flights to and from St. Petersburg, Rimsky (as might be expected) creates dances of witches and devils, ballets of the heavenly bodies, pageants of pagan deities, and airborne visions of the earth, and his music is enchanting.

At the same time, the scale of the story requires him to write more tightly than he did in some of his yawn ing legendary epics, so his scenario and score are concise, with no extraneous scenes or characters, no dead patches in the writing. His orchestral imagination had reached its full development here, and the melodies were flowing freely (even apart from the Ukrainian folk material that he again employs, though sparingly). I cannot imagine anyone resisting this opera.

It is a shame that the recording (Ultraphone ULP 144/6, mono, three discs) is not of better tone quality, though one would love to hear the full color and depth of the score, and this 1948 Moscow Radio presentation does not give us that. The sound can be tolerated, though, and the performance is first-rate. True, the Oksana (N. Shpiller) has a case of the Slavic Spintos, and the Vakula, Slavic Heroic Tarkhov, possesses about the keenest top B and C ever honed. But the former is a careful and expressive musician, and the latter has a basically strong and attractive voice; more to the point, everyone in the cast performs with real elan—they all mean it, they all have clear ideas about the music and the characters, and they are all well cast in terms of their vocal types (something that is becoming rare). Golovanov leads an exuberant performance with a strong supporting work from contralto Kulagina, tenors Pontyragin and Shchetsinov, basses Krasovsky and Tyutunnik—indeed everybody.

Division of Records and Statistics:

With the low C interpolated at one point by Krasovsky and the high C sharp sung by Shpiller in the last scene (and Tarkhov takes high options at every opportunity), the voices on this recording cover four octaves plus a semitone with legitimate singing tone. This mark could be tied by a Zauberflote in which the Sarastro interpolates a low E at the end of "In diesen heil'gen Hallen" while the Queen of the Night sings her second aria in key and on pitch (so high F); but I do not believe this is the case on any complete recording. The feat could be surpassed only if the Sarastro went to the low C at the end of the first verse in "O Isis und Oistros"—we would then have four octaves and a fourth. This is obviously a much-to-be-hoped-for achievement; as a preliminary, we must eliminate the joyless modern race of moldy-minded opera conductors. Write to this address if you wish to participate.

Sadko (1896)

This is a gorgeous, exhilarating score, and one that exacts theatrical imagination from throughout. And it is not only the sensuality and mysticism of the pantheistic elements that inspired the composer, though certainly the lulling music of the Lake Ilmen scene and the charming fantasies of the undersea kingdom are Rimsky's at his aquatic best. The Novgorod scenes are, in their way, equally fine, with their bracing choruses and affectionately satirical songs and dances for merchants, abbots, and other buf-
foons. Rimsky responded to both sides of this beautiful quasi-historical legend, which celebrates at once the establishment of Russia as a political and economic power in the time of Novgorod the Great and her Christianizing, historically at an earlier period.

This is also another work in which the lure of the water nymph makes its appearance—in this case a voracious salt-water type named Volkhova, who easily pulls Sadko under from his ill-advise position on a plank in the middle of the ocean. This theme, too, is most vividly portrayed in the music, and altogether Sadko is a fascinating piece.

There are two recordings, one by the Bolshoi under Nikolai Golovanov (Ulraphone ULP 12730, mono, four discs) and the other by unnamed soloists with the Zagreb Opera under Mladen Bashic (Artila ALS 5004, rechanneled, four discs).

The Bolshoi performance has some weaknesses but is manifestly the superior of the two, starting with outstanding orchestral and choral work in a reading of great spirit and color. The important supporting roles are all well taken, headed by a Sea Tsar of pulverizing resonance from Sergei Krasovsky. The Volkhova, Elisaveta Shumskaya, has some edginess in the middle range but a clear and pretty top, and she's a real musician who gives phrasing their swing and shape. The two mezzos, Davydova and Antonova, are much less precise and not very pleasurable. The Sadko is Nelep; he is an excellent artist who does everything called for by the score, and well, but unfortunately with a nondescript vocal quality in restrained music of this sort. Best of all is a brilliant Guest Scene, in which Reizen, Kozlovsky, and Liss- tsian stand up and sit down in succession to sing the stuffing out of the magnificently descriptive songs of the Varangian, Hindu, and Venetian guests—a feast for lovers of fine singing.

The Zagreb performance has an excellent mezzo as Nehzata, the minstrel, preferable to Antonova, but the other singers are all less effective than their Bolshoi counterparts, sometimes disastrously so. The orchestral and choral execution is also mediocre, and the sound, labeled stereo, is muddy; Ultraphone's, though mono and not entirely free from distortion, is far fuller and more vivid. Both recordings offer a substantially complete version, with only minor internal cuts.

Mozart and Salieri (1897)

This little one-act piece explores the motives and emotions of Salieri with respect to his fancied poisoning of Mozart. It is taken from the same trio of Pushkin scene sequences that provided Dargomizhsky with his libretto for Stone Guest (q.v. in the December issue). Rimsky orchestrated the latter, and in this piece attempted to create an austere drama of character along the older composer’s model. Mozart and Salieri is thus intriguingly uncharacteristic of its composer, and while it is not memorable purely as music, considered as a theater piece it does represent an opportunity for imaginative singing actors.

Of the two complete performances, one (Olympic 9106, rechanneled, one disc) is recently re-released and generally available, the other (Colosseum 10420, mono, one disc) long withdrawn and hard to find. In another illustration of Osborne’s First Law (”The quality of the performance stands in inverse ratio to the accessibility of the record”), the Colosseum performance is the better by several times over—sung in Russian by two fine performers, bass Mark Reizen and Slavic Lyric Ivan Kozlovsky, with room left over for some Reizen encores. Despite muddy sound, this rendition makes a strong case for the work.

Olympic’s is in no way competitive except in the conducting (Leibowitz) and sound—poorish rechanneling, but better than the same company’s The Marriage. The singers are Jacques Linsolais (pleasant, tremolo-ridden baritone, bland interpretation) and Jean Mollien (heavy, inelegant tenor). Both enunciate well in the wrong language. French, neither can hold a candle to his Russian opposite number.

Actually, it is the hair-raising performance of Salieri’s three monologues by Chaliapin (on EMI RLS 710, a two-disc Chaliapin set with much other fascinating material), recorded live thirty years after he sang the opera’s premiere in 1898, that brings this imaginary Salieri into being. Musically it is a grand entertainment, awash in seductive color, rich in fantasy, spiced with caricature and satire that never loses its affectionate tone. Bieksky’s libretto is clever and stage-wise, and Rimsky’s score has hardly a weak patch. It is a large-scale piece, not lightly undertaken, but its neglect by major Western companies is incomprehensible.

The opera is based on Pushkin’s setting of a Russian folktale, wherein the impulsive and childlike tsar selects a bride, Cinderella-like, from among three sisters, thus incurring the envy of the other two and the evil old Babarikha. Saltan is tricked into peevishly ordering his bride and their infant son (who grows, rather frighteningly, before our eyes) set to sea in a cask; but of course they are conveyed to the enchanted isle of Buyan, where the now-grown prince frees the inhabitants, assumes rule, discovers and marries the (also enchanted) St. Swetlana, and eventually restores his parents’ union. Mirrorless events continue on, among them the prince’s visit to Saltan’s court in the guise of a bumblebee (he stings the three nannies and is officially banished from the court), to the music of you-know-what.

As usual with Rimsky, the instrumental writing and the pictorial interludes are magnificent. But as is not always the case, the vocal writing is also strong, and the characters assume real dimension in the music. Both Saltan and his wife have fine arias, and the prince has a good one, followed by the most exuberant love duet in all Russian opera. The final scene and the interlude that precedes it are stunning, and the opening-out of the music toward this final has an air of celebrative uplift that almost deserves comparison with Act III of Die Meistersinger.

As with Sadko, there is a Bolshoi recording (MK 206C, mono, three discs) and a Zagreb recording (Artia ALS 502, rechanneled, three discs); again as with Sadko, the Bolshoi edition is to be pre-
ferred by an almost prohibitive margin. Nebolsin is the conductor, and the chorus and orchestra are at their splendid best—if only the recording did them full justice! (This is 1959 mono, not bad, but certainly less than the score deserves.) Petrov is marvelous as the Tsar, and Ivanovsky, in fresher voice than for Columbia's Boris, sings sturdily and musically as the young prince. Smolenskaya is in representative form as Militriissa, authoritative and stylish, but sometimes edgy and scoopy, too. Oleinichenko, the Swan Queen, also has a hard glint to her tone but copes well enough. Good supporting work from Mark Roshchin, from Shumilova (as one of the wicked sisters, her fine upper range popping out of the ensembles), and from all three sailors in the bumblebee scene.

The Zagreb offering is very weak in the supporting parts. The Saltan is a perfectly decent singer, and the sopranos can be borne, though the tenor hardly so. But the performance as a whole is such a sad-sack affair, so limp and colorless, and the recording so tubby, that it cannot be said to represent the music at all.

The Invisible City of Kitezh (1904)

This is an extremely ambitious work, in which Rimsky made a final attempt to arrive at a synthesis of symbolic legendary elements, characters embodying certain statements about the nature of good and evil, and Eastern Christian orthodoxy. In Bielsky's libretto, the beautiful maiden Fevronia lives a hermetic life in the depths of the forest, where she is discovered by Prince Vsevolod, who takes her for a wife and introduces her to the human community in the village of Little Kitezh. But Little Kitezh is razed by the Tartars, who also threaten the city of Great Kitezh. Through the prayerful intercession of Fevronia, the city is rendered invisible behind a golden mist, thus saving it from attack, and then is transformed into nothing less than the Heavenly City itself, eternal and paradisiacal but accessible only to those who are purified through love.

Fevronia, whose unity with Nature and belief in a divine presence in all things clearly represent Rimsky's path to salvation, is balanced by the character of Grishka Kuterma, a drunken scoffler absorbed in divers negativities. Grishka is the other major character (not the prince, who is a catalytic cipher), the dark side of the dualism, and bears a rather striking resemblance to one of Graham Greene's degenerate damned. At the end, he is of course barred from the Heavenly Kitezh, where Fevronia's sweet immanentist doctrine somehow enters into a compatible union with church ritual—a marriage made possible, I fear, only by Rimsky's wishful imagination.

There is some marvelous music in the score. The opening scene in the forest is reminiscent of the Snow Maiden prologue but far superior musically. The life of Little Kitezh, the interludes of battle and miraculous transformation, and the final transition to the Heavenly City are all very persuasively pictur ed, and the character of Grishka, a unique figure in Rimsky's operas, is strongly written.

For me, though, even the best of this falls a bit short of the equivalent moments of Tsar Saltan. Further, some of the other material is really quite weak. The Tartars are rather palely presented, but more importantly Fevronia herself is not memorable in the music—she sings beautifully in the opening scene but then has nowhere to go, and her scenes with Grishka are dominated by the latter. And when Rimsky finally reaches Heavenly Kitezh, he doesn't know what to do with it: The transitional music is impressive, but the final scene comes to a curious standstill—the peace that passeth understanding, perhaps, but it doesn't quite jell.

The performance (MK 209D, mono, four discs) is solid, with a good orchestral and choral underpinning (U.S.S.R. Radio) under the excellent Nebolsin. The most memorable piece of work is Tar khov's Grishka. Here is an example of a one-time leading romantic tenor turned to a character role (though an extended one) and making something special of it. The voice, with its upper range now too pinched and straight to serve well in leading roles, is still strong and still a singing instrument, so that his use of distorted colors and inflections carries the sense of an artist making expressive choices and carrying them out technically, rather than that of a secondary talent making the most of limitations. It is also instructive to have the admirable precedent.

The Fevronia, Rozhdestvenskaya, is a leading Slavic Spinto. A good musician with a substantial voice but without the natural allure that would make us believe in Fevronia. Petrov, in superb form, has only limited opportunities as the elder prince but makes the most of them; as the younger prince, Ivanovsky is satisfactory in what we must call a "nothing" part. Among the supporting roles, there is noteworthy work by the soprano Melnikova and the basses Dobrin and Troitsky. The sound, on my older MK pressings, is free from serious distortion and reasonably just to the voices, but only halfway there with respect to the orchestral and choral reproduction.

The Golden Cockerel (1907)

Rimsky's final opera is also his only one to take on anything approaching repertory status in the West. This relative popularity is understandable, but is related not so much to its superiority (Saltan, Christmas Eve, and Sadko are of at least comparable quality) as to its temperamental and outlook.

Once again, Rimsky and the very gifted Bielsky give us a legendary kingdom, playfully and exotically presented—the realm of King Dodon, whose chief care of state is finding suf-
Sergei Rachmaninoff (1873–1943)

The Covetous Knight (1905)

Rachmaninoff's setting of this play completes the operatic treatments accorded Pushkin's little trilogy of scene sequences. But whereas Dargomizhsky had used The Stone Guest to explore his austere theory of vocal declamation and Rimsky had taken Mozart and Salieri as the occasion for an exercise in a compositional manner, Rachmaninoff simply bent the Pushkin to his characteristic full-blown style.

The play is a little parable about, first, the passing of the torch, and, second, giving and withholding. A young knight, Albert, eager to continue his life of idle jousting and other pursuits befitting a man of his station, has run out of money. His father, the Baron, has an enormous amount of it, which he is not about to see diminished. After failing in an attempt to browbeat a loan from a Jewish money-lender and rejecting, too indignantly, an offer of poison from this same tradesman, Albert and his father confront each other before the Duke; their vehemence leads to a duel challenge, and Albert's acceptance thereof is too much for the old man, who dies on the spot. These events are set off midway by what is really the centerpiece of the opera, a long monologue of the Baron in his treasure chamber.

This monologue (once recorded for Columbia by Siepi, incidentally) is a noteworthy piece of writing. The text details the qualities of the Baron's obsession: He invests the treasure with his fantasies of magical transcendence, of world power; he sees the history of human anguish and greed in each gold piece; he thrills to the gold's sensual qualities; he trembles at the threat of intrusion on this all-consuming inner realm. Though he has made glamorous and regnant for dramatic purposes, he is essentially like the serious baseball fans, record collectors, and other dangerous obsessive/compulsive of our daily existence.

Rachmaninoff's music for this is fascinating—his big orchestra grows and shrugs and, in the climactic moments of gloating, attains a sweep and power that is exultant, yet still stilling. The vocal declamation is effectively set and affords tremendous opportunities for an outstanding singing-actor. This role was originally intended for Chaliapin, and it must be one of the more poignant regrets of operatic recording history that he did not perform and record this scene.

Elsewhere, the writing is strong and effective, but a bit more predictable and generalized and sometimes hyperbolic—the role of Albert is so persistently high and loud that one begins to suspect substitution of easy effect (easy for the composer, that is, not for the performer) for musical thought; and the orchestra sometimes stands on its head just for the hell of it. But the brevity of the piece (barely over an hour) prevents these flaws from becoming really oppressive. Each character has a single quality, a single action, that is pursued directly to the end, and Rachmaninoff does not violate this essential dramatic economy. The piece leaves a tangy aftertaste.

The recording is by the Moscow Radio Orchestra under Rachmaninov's own baton (Melodiya/Angel SRBL-4121, stereo, two discs, with a fine Svetlanov performance of Isle of the Dead on Side 4). The orchestral performance is first-class. In the key role of the Baron is Boris Dobrin, by this time a veteran bass-baritone who has only recently been recording leading roles. He is a resourceful performer with a decided dramatic flair. His voice is a good one, too, though when put to this sort of test reveals less than total technical command—the basic timbre is rather nondescript, despite his intelligent varying of it, and his intonation is less than exact (he tends to surround pitches). Still, his performance communicates.

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The score, of course, is expert and delightful. The Hymn to the Sun and the queen, well written but dependently allied to the problem posed by the very sinuous, tinkly music. Beneath the disguise, the piece shows through faintly—concise, modern, one might even say lightful. The Hymn to the Sun and the queen emerges in her Ishtar guise, beautiful but vengeful, in the last act. The tenor Pishchayev hurries the stratospheric role of the Astrologer successfully, with the rather weird feigned-voice sound intended. Kleschcheva is a sufficient Amelta, the others acceptable interpretively, without doing much in the way of pleasurable singing.

The Westminster is in true stereo, and decent at that, with good surfaces; this plus the presence on Side 6 of a well-played suite from Kitezh, far better recorded than the complete edition, constitutes points of superiority over the Ultraphone, which is in somewhat edgy mono sound. However, Westminster provides no accompanying material whatever, whereas Ultraphone offers very detailed synoptical notes, with examples. This, or a libretto, is quite necessary. The Pushkin, a short verse tale, is not an adequate scenario for the opera.

One performance is available, most easily on Westminster Gold (WGSO 241, stereo, three discs) but possibly also on Ultraphone ULP 108/10 (mono, three discs). It's a reasonably good one, a ten-to-twelve years old, with Moscow Radio forces snappily conducted by Alexei Kovalyov, but from the vocal standpoint it is among the less appealing of the Russian issues. Kovalyov is a good singing actor for the role of Dodon but not more than acceptable vocally. The Shemakhan Queen is K. Kadinskaya, who has the wide compass of the part in her voice but in an acidulous timbre that has little sensuality or relaxation to it—the Hymn is just batted out, efficient and foursquare. She is most effective when the queen emerges in her Ishtar guise, beautiful but vengeful, in the last act. The tenor Pishchayev hurries the stratospheric role of the Astrologer successfully, with the rather weird feigned-voice sound intended. Kleschcheva is a sufficient Amelta, the others acceptable interpretively, without doing much in the way of pleasurable singing.

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Alexei Usmanov is fine in the part of the money-lender, and Sergei Yako
venko is an energetic Duke, though again on the imprecise and graceless
side. The recording is good but in a savage way—a cushion of distance from the
soloists and from the midrange instru
ments (especially the brass) would not
have been amiss.

SERGE PROKOFIEV
(1891–1953)

The Gambler (1917)

Prokofiev’s first performed opera, re
worked in 1927–28, is by no means a com
plete success, but its best pages are fasci
nating, its theatrical audacity is exciting,
and surely it does not deserve the short
shift accorded it by even the composer’s
biographers and other commentators.

The work is taken from Dostoevsky’s
novella of the same title, which is cast in
the form of extracts from the diary of a
young uchitel, or tutor, named Alexei.
He is attached to the family and entou
rage of a wealthy retired general, camped
for the season at the German gambling
spa of Roulettenburg. The general is in
financial straits, and he and his house
hold await with held breath the sup
posedly imminent death of the old,
chair-ridden grandmother whose for
ture will keep the social ship afloat.
Among the hangers-on are a fake French
marquis, a mysterious and taciturn Eng
lishman named Mr. Astley, and a beau
tiful young Parisian adventuress,
Blanche. The general wishes to marry
Blanche, who calculates before she steps.
The marquis has an interest in the young
lady of the household, the enigmatic Po
lina, and has the general by the fiscal
throat. All depends on the early demise
of the babulinka.

The latter, however, shows up at Rou
lettenburg, where she manages to lose
most of the family wealth in a single day
at the casino, leading to the disintegra
tion of just about everything. But the
story’s central character is Alexei, who is
a variation on the familiar European Ro
mantic outsider of high intelligence but
low degree, with that intriguing com
pound of cynical wit and fatalism, the
unresolvable conflict between philo
sophical distance and envious rage, that
often characterize such figures. He sug
gests ancestorship to Mann’s Felix
Krull—a Felix Krull who has not yet
mastered amoral detachment. He loves
Polina, who treats him with scorn and,
almost, hate, for very interesting and
subtle reasons too complex to explore
here. He also has a growing passion for
gambling; the insane inequality of rou
lette seems to him an accurate reflec
tion of life, as well as a way of transcending
it.

These passions intersect when, after
the family’s ruin, he wins an enormous
sum to enable Polina to buy off the mar
quis. But she hysterically rejects the
money, after seeming to accept it and
spending the night with Alexei, and the
opera ends here. (In Dostoevsky, Alexei
squanders the winnings during a surreal
three weeks with Blanche in Paris, then
later finds through Mr. Astley that he lost
Polina, in effect, by finally surrendering
to the cynicism and fatalism symbolized
by his gambling obsession.)

Prokofiev was absorbed, first, by the
fevered, haunted atmosphere engen
dered by the life-thrown-to-chance mo
tif and, second, by the network of emo
tional cross-purposes of the Alexei/
Polina relationship. And he does
brilliantly by these aspects of the piece.
The climactic sequence—the mad,
dreamlike gambling-house scene fol
lowed by the final crushing interview be
tween Alexei and Polina—has a truly
gripping intensity and is like nothing else
in opera, with an ingenious use of dry,
rattling, nails-across-slate colors in the
orchestra and a marvelous restlessness of
rhythm that is vividly pictorial without
becoming literal. Earlier, there are two
other scenes between Alexei and Polina
that are also very strong—it is amazing
how close Prokofiev came to these two
difficult characters and their complicated
failure with each other.

Unfortunately, the way must be paved
for all this with the elaborate setting and
development of the story. There are
many characters, and, since Dostoevsky
was a genius, each of them has a precise
function and the development necessary
to that function, impossible to fully re
create operatically. Further, in the story
they are all seen through Alexei’s eyes—
an important device in the definition of
his character—whereas on the stage they
are treated objectively, and we lose an
important level.

Prokofiev tries valiantly to render these
people, to keep their conversa
tional attitudes and the progression of
their lives before us. But they live only
fitfully in the music; there just isn’t much
reason for most of their talk to be sung.
Naturally, a composer of Prokofiev’s so
phistication finds many apt and inter
esting moments along the way, but on
the whole the first half of the opera is
rather slow going, at least on records.
In the theater, expert people could prob
ably keep it alive until the work begins to
exert its hold in Act III.

The performance on Russian Melo
diya C 0697/702 (stereo, three discs)
offers no outstanding singing but a consis
tent ensemble effort from a group of
experienced character singers, all ap
propriately cast. The Alexei, Vladimir
Makhov, has a strong but not ingratiat
ing Slavic Heroic voice, which he places
completely at the disposal of his role in
an impressive dramatic re-creation.
Nina Polyakova (Polina), with a flutery
middleweight soprano, is also extremely
clear and strong from an interpretive
viewpoint. Both these artists render even
the extravagant emotional states of the
final scenes without exaggeration or
several levels of satire operate simultaneously. The music is really admirable, merciless libretto and score, in which frees her from the kitchen guarded by an great love imprisoned in an orange and the curse of the Fata Morgana, to find his hypochondriacal prince sets off, under the knight Ruprecht, who in the best sense—inspired by Valery Bryusov, a cosmopolitan intellectual, obviously completed his story before 1920 (when Prokofiev began work on the opera), and there seems a likely connection to the earliest psychoanalytic literature—the collaborative study of female hysteria by Freud and Breuer.

How was all this to be represented on the stage? The work places unbelievable demands on the two central characters, who must carry the burden of every scene except for the brief Faust/Mephistopheles intrusion (and almost always together, in lengthy dialogues—Ruprecht's call on Agrippa and Renata's end at the convent are their only moments of separation). Prokofiev's attraction at this time to dramatic treatments of Meyerhold and Bryusov strongly suggests that he was working toward some ideal of stylized, antinaturalistic musical theater containing symbolist elements, whose acting and production styles were never realized. He could go no farther in this direction, and when he next turned to opera after a long withdrawal it was with the Socialist Realist script of Senyon Kozlov's The Man Who Won't Take No for an Answer. He could go no farther in this direction, and when he next turned to opera after a long withdrawal it was with the Socialist Realist script of Senyon Kozlov's The Man Who Won't Take No for an Answer.

The compositional challenge is almost self-defeating. We are plunged directly into the climax of one of Renata's fits, and we do not leave for a moment the feverish, delusional world she creates. On-stage as in life, this sort of woman is very trying to be around, and it asks a great deal of an audience to put up with her. Ruprecht seems an awful chump, and one of the problems is that nothing sets for us the world in which such behavior and attitudes can seem logical, even on their own weird terms. Ruprecht's obedience to the chivalric code is not, I think, quite enough to make his character work.

But the music has an obstinate integrity and draws us almost by force into a very ugly world, one which has its own sound and insists on maintaining its structure and texture. The best of it, I think, is the second act (especially the Agrippa scene and the interlude leading to it) and the first scene of the third act, with the interlude that follows it. This last embraces some moving and frightening writing for Renata, as she de-
scribes her rejection by her earthly angel, then orders Ruprecht to kill him. The Faust/Mephistopheles episode is brilliantly written in the composer's best sardonic vein and is certainly a relief after hours of R.&R. In the first act, the expository dialogues are really too much to sustain, even for Prokofiev, and the finale in the convent is relatively conventional.

It is an overeasy simplification to say that as an opera, The Flaming Angel makes a fine Third Symphony. Yet there is some truth to this. Ruprecht's theme, a good one that is, however, made to serve over-many purposes in the opera, is given a compelling development in the symphony. and the crashing, mesmeric progression associated with magic and specifically with Agrippa carries an impact in the symphony it only approaches in the opera. Indeed the most powerful music of The Flaming Angel is that of the interludes, where much of the material is given virtually the same form it finds in the symphony.

The recording of the opera (Westminster Gold WGSO 8173. stereo; three discs) is a Radiodiffusion Francaise effort of the late '50s, sung in French. This is too bad, not only for the missed values of the language, but because several of the roles are so precisely written for specific Russian voice types whose sound one can, with a little effort, imagine. We are lucky to have the piece at all, though, and so far as I know it has never been produced in Russian.

The French performance is a committed one and thoroughly prepared, and its cast is solid. Any soprano who can survive a few performances of Renata qualifies for pension on that ground alone, and Jane Rhodes, her voice still fresh and reasonably firm at the time, does a fine piece of work. The vocalism is not perfect and certainly not safe, but she produces much good sound and really puts herself inside the nerve-fraying role. The Ruprecht is Xavier Depraz, the leading French bass-baritone of those years. His voice is beautiful and steady, his observance of musical and verbal text exemplary; a certain blandness and softness in his approach keeps the character from making its strongest statement.

The very lovely basso of Andre Vestiieres is perfect for Faust but not quite proclamatory enough for the Inquisitor, a part calling for a thunderous Russian black bass. Jean Giraudouc, an accomplished tenor, is a vivid Mephistopheles, and it is good to hear the fine Irma Kolassi in two mezzo supporting roles. The only serious weakness is the dry-sounding, pinched Agrippa of Paul Finel—this role, though short, should be in the hands of a first-line dramatic tenor.

Charles Bruck conducts with great vitality. The sound is a bit restricted and barely recognizable as stereo, but adequate.

Semyon Kotko (1939)

Every important operawright is entitled to one unmitigated stinker, and this is Prokofiev's. He was under the gun at the time, on the grounds that his music had insufficient and/or incorrect political content, so he wrote a piece with sufficient and correct political content, and that's all.

When I first reviewed the work ten years ago, I argued that its artistic poverty did not necessarily imply insincerity. Don't know how I could have been so misguided. The compositional energy, the theatrical imagination of his previous works, are gone: the will to grapple is not there. The following year, these were to reappear suddenly in The Duenna; the year before they resulted in Alexander Nevsky. Semyon is a factory slowdown—hours are put in, the proper gestures are made, but somehow the work doesn't get done.

The opera is set in Ukraine in 1918, when the outbreak of civil combat led to Russia's disengagement from World War I. It is about the nobility of Leninism and the invariably Satanic motives of all who oppose it, as well as the inherent generosity and loveliness of the plain folks in Ukraine. Like all propaganda art, it has to lie about people and about the meanings of events, and it is to Prokofiev's credit that it lies so incompetently. The few passages of comparative interest in this very long score are some brief traditional romantic/nocturnal bits, plus scattered bars associated with the cartoon Germans or anti-Communist Ukrainians—still clichés, but at least the tempo changes.

The performance (MK 214D, mono, four discs) is almost beside the point. It's U.S.S.R. State Radio under Mikhail Zhukov, and everyone has dutifully memorized the damned thing. In the title role, tenor Nicolai Gres makes predominantly strong and pleasing sounds, and endures like Prometheus. A soprano named Tamara Antipova is pleasant as Semyon's kid sister (phrase used advisedly): bass Boris Dobrin does an effective cameo as a blind bandura player (yep); and Nicolai Panchelin, a solid-sounding bass, seems to have some bluster in the role of the Inquisitor. There are a number of others involved. The sound is quite cramped for one or two of the concerted passages but decent enough otherwise.

The Duenna (Betrothal in a Monastery) (1940)

Somehow, in 1940, Prokofiev turned to Restoration comedy of sexual and other manners, to Sheridan of all playwrights, and created a sparkling lyric/romantic piece. In a way The Duenna is a throwback—a generational-warfare plot of heavy-breathing young couples and mercenary senior citizens, full of character observation based largely on class status and mobility (the quixotic remnants of the courtly manner; the Jourdainsque pretensions of fish merchants, etc.). It seems more of the line of nineteenth-century Italian comic opera than anything else; the only twentieth-century equivalents I can think of are the comedies of Wolf-Ferrari, a couple of which are quite pleasing, though not as expert as this piece.

Compositionally, too, The Duenna is more conservative, more comfortably lyrical, than Prokofiev's previous operas. Yet not a bit of it sounds tired or derivative. There is no hint of imitiveness in the delightful melodic invention, and Prokofiev's knack for locating the key to...
a comic character in the music retains its sting—he has simply adapted it to the very different style of the drama. The characters are an intriguing and entertaining bunch, and there isn't a weak scene—altogether it is a completely successful work of its sort.

The recorded performance (Ultraphone ULP 153/5, mono, three discs) is by the Stanislavsky/Nemirovich-Danchenko Musical Theater of Moscow, a company that performs in a small and slightly shabby theater a few blocks up the Pushkinskaya from the Bolshoi. Right up through his Paris days, Stanislavsky was fascinated by the theatrical challenges posed by operatic form, and the company named for him and his associate attempts to carry forward the spirit of his explorations in this field. I saw a hilarious (and quite well-sung) Cosi fan tutte, in which no one "acted funny"—the characters were taken at full value, and the situations carried forward with that grave concentration that marks all good comic acting. Though the musical values were weighted differently than in Western performances and the secco recitative rendered as spoken dialogue (so well that one was hardly conscious of the changes between singing and speaking), the content of that funny, savage work was better conveyed than I have ever otherwise seen.

The same values are apparent in the recording of The Duenna. I can think of few impersonations on record that are as complete as the Don Jerome of the character tenor N. Koshurunov—it is at once outlandish and entirely believable—or the Mendoza of the bass E. Bulavin, who also sings with strength and beauty. A good contrario, T. Yanko, is exact and economical as the Duenna—we can hear precisely what the character is doing and how, and she never punches us or exaggerates. The cast is large, and there is a true ensemble feeling; even the smallest roles are definite parts of the theatrical experience.

I should add that the singing is really excellent in all the lyric roles: The mezzo Isakova (Clara) and the tenor Mishchevski (Antonio) are especially enjoyable, but the soprano Kvæchenko and the baritone Kruov are nearly as good. K. Abdullayev leads a lively, well-executed orchestral and choral performance, and the sound is surprisingly good.

War and Peace (1942)

War and Peace is discussed this month in Mr. Osborne's feature review of the Columbia/Melodiya recording.

The Story of a Real Man (1948)

Prokofiev's last opera dates from the year of his confessional letter to the Union of Soviet Composers. Its performance history makes things clear enough: a production mounted at the Kirov, with a front-line cast, was given a single "private showing" in 1948, after which the work was not heard from again until 1960, when a cut and revised edition was brought forth at the Bolshoi.

At first glance one is afraid of another Semyon, but this is a far stronger work. Taken from a story by Boris Polev, it deals with the real-life Soviet aviator Alexei Marcseyev. Shot down behind German lines in the desperate days of 1942, he makes his way back through many miles of frozen forest, crawling some of the distance due to frostbite. Found nearly dead by some villagers, he undergoes double amputation but, inspired by the example of an old first-generation Bolshevik commissar, undergoes a grueling rehabilitation program and flies again in battle.

The piece is designed as a series of short scenes, some hardly more than vignettes, obviously intended for a cinematic production technique. It progresses in straightforward narrative fashion except for some flashback moments during Alexei's delirium and a couple of scenes involving his girlfriend Olga, who is seen only through Alexei's imagination until the final scene. It is a pity that the last third or so of the opera does not sustain the level of the rest—Alexei's ordeal is more persuasive than his recovery. The early scenes in the forest are gripping, full of good, tough declamation and touching lyric moments. Alexei's discovery by the children of the burned-out village, the chorus of farmers as they pull him by sled, and the trio of the peasant family that shelters him, constitute a profoundly moving sequence. The level remains high through scenes in the hospital ward and solarium—very difficult stuff to set, but Prokofiev succeeds in creating the comradeship of the wounded. Alexei's bitterness, and the importance of three interesting supporting characters: the commissar, the attending doctor, and the night nurse. The nurse's song in the darkened hospital and the death of the commissar are especially good, and could easily have been embarrassing in less expert hands.

The better things get for Alexei, the more perfunctory the setting becomes. His final letter to Olga is not very interesting musically, and the scene where, to prove his airworthiness, Alexei forces himself to walk and rhumba at a dance, is disappointing—if well acted, it would still work on-stage, but we do not hear much of either his pain or his success in the music. The ending, with the exchange of congratulations, the salute to Soviet virtue that makes it all possible, and the predictable love duet, is just what one expects in the final reel of a World War II movie, with music more or less to match. But even these sequences retain some animation and feeling, and by this time one is very much on the work's side.

The recording (Ultraphone ULP 147/9 mono, three discs) is taken from the Bolshoi production, with just a couple of cast changes from the original staging. This means it is also based on the revised edition; there are many deleted sections, some of which appear interesting, and at the least have a function in filling out the work dramatically.

The performance is a strong one. The Alexei is Yeveyg Kibkalo, a smooth lyric baritone and a sensitive artist—his work is excellent until the very last scene, when the heroic final duel challenges him vocally and wins. The Olga, G. Deomidova, contributes a vigorous wobble to this same duet, and there is fine supporting work from the basses Reshetin (the doctor) and Eizen (the commissar), the mezzo Leonova (the nurse), and the tenor Maslennikov (Kushskin, a flier). And there is a fine ensemble feel: Gyorgy Shulpin, Vera Smirnova, and Gyorgy Pankov do careful, capable work in quite short roles, and even the two children are well cast (speaking parts: V. Kurguzov and A. Suzanov). Mark Ermler leads a tight, well-played performance, and the sound is above average for time and source. The sixth side of this set offers some excerpts from Rimsky's Mlada, in the same performance of which more extended extracts are available on Melodiya/Angel SR 40012.

Katerina Ismaikova (1934)

I should think that perhaps this opera's time has come, not merely because its musical idiom now seems quite comfortable and traditional, but because it is surely the most powerful operatic statement of the theme of women's oppression by a male-dominated society. In fact it is perhaps the only such statement, in the sense that it deals sympathetically not simply with the individual predicaments of female characters in personal situations, but specifically with the traps set for women, as such, by a male world, as such.

The libretto by A. Preis and Shostakovich is taken from a story by Nikolai Leskov, and in its original form the opera bore Leskov's title, Lady Macbeth of
striking monologues, we are made to feel only one exonerated. Through several episodes remarkably like several in D. H. Lawrence, Katerina has succumbed to a rush of passion for a powerful new hired hand, Sergei. In a brutal scene, Boris personally whips Sergei before the assembled populace of the estate. Katerina thereupon murders Boris by feeding him poisoned mushrooms, and when Zinovy returns to find Katerina and Sergei bedded down his murder becomes necessary too. The crime is, literally, smelted out (Zinovy's corpse rolled away in the cellar storeroom) on the day when Katerina, now true mistress of the estate, is marrying Sergei. The two end as convicts in Siberia, where Sergei forsakes Katerina for a tough young peasant convict named Sonyetka. Katerina commits a final murder, pushing Sonyetka into the river and then leaping after her.

It will be seen that many Macbeth parallels have been retained, with the male/female roles more or less reversed. Like Macbeth, Katerina stands to gain power through a series of murders; but again like Macbeth (and this is much more explicit with Katerina), she really does this to free herself from oppression and secure her own servitude, or that the male workers who viciously bait a subsidiary female character, Aksinya, do so from the misery of their conditions. But one must assume this—they are given no such externalization in the libretto or scene. Similarly, while both Sergei and Katerina wind up among the wretched convicts of the final act, he is left with a relative freedom and an acceptance by that society; Katerina has neither.

Class commentary remains, however, and it is a perplexing dimension of the work, for it leads to a sharp stylistic dissonance in the music. Shostakovich sought to satirize the "bourgeois" elements of his subject, and this led him to an almost Expressionistic handling of them. This is most obvious in the scene at the police station, where the ritual statements of the cops could be out of The Adding Machine; the entire scene is a bit-caricature, and a well-written one. It clashes luridly with the realistic assumptions of Katerina's music or of the whole last act, theatrically as well as musically.

In the New York City Opera production a decade back, the scene was omitted, but this does not solve (in fact, only leaves more puzzling) the presence of the same tone at points throughout the first three acts.

Much of the time, this attitude crops up in the orchestral interludes, which are without exception brilliantly written. Sergei carrying Zinovy's body to the cell, with Katerina lighting the way, brings us a march that S. Shifrin (in the record album's liner notes) terms "uneasy"—yes, but "merry" is just as appropriate. The discovery of Zinovy's body by a ragged old man in search of a drink sends him scuttling off to the cops to a rowdy, full-scheroz. Or the feelings will be intermixed, as with the first entrance of Boris Timofeyevich, when a steady drumbeat sets the heavy, monotonous menace of his meaning to Katerina while quirky little figures from the bass soon offer a broad hint of ridicule. It is as if Shostakovich set out to tell everything from Katerina's viewpoint by setting her realistically developed character in a blackly out-of-kilter world, got a bit carried away with both kinds of writing, and couldn't quite decide where one should end and the other begin. It would be interesting to compare Katerina with the piece as it existed before Soviet critics grew indignant about its moral stance.

Yet so much of the writing is marvelous. The composer's orchestral virtuosity is in evidence all the way, and though the composition frequently steeped in symphonic terms and forms it is also magnificently theatrical. The characters and situations are constantly present in the music, and the vocal writing shows a splendid sensitivity to the capacities of the instrument. Katerina's writing is no doubt the most complete success, but Boris Timofeyevich is a glowing and not entirely one-dimensional figure, and the composer finds a specific tone and movement for each scene. The final act, with its picture of prisoners and guards moving miserably and endlessly through Siberia to no discernible destination, recalls in its bleak power some of the epic pages of nineteenth-century Russian opera.

Despite its problems of style, this opera, with its strong and biting libretto, its variegated and inventive score, should not continue a more or less neglected existence in the West.

The recorded performance (Melodiya/Angel SRCL 4100, stereo, three discs, no longer available domestically) is by the Stanislavsky/Nemirovich-Danchenko company under Gennady Provatorov and is forceful. It is true, as Bernard Jacobson complained in reviewing the Angel release in 1967, that some musical niceties go by the board, but a feel this is the only human being in a performance of such dramatic conviction and vitality. The actual orchestral execution, in fact, is astonishingly good, considering that this is the pit orchestra of Moscow's "second" theater. The soprano of Eleonora Andreyeva is at times a bit heavy in its handling, a bit imprecise in its intonation, but she copes solidly with her demanding part and creates a recognizable dramatic figure. Eduard Balavin, the Boris, is a potent bass-baritone and a precise, unexaggerated actor. The Sergei is Gennady Yefimov, essentially a character tenor here aspiring to a Slavic heroic role; he does an admirable job, but there are places where more substance and color would be welcome. The bass Gyorgy Dudarev sings movingly as the Old Convict in the last act, and Vyacheslav Radzievsky is an appropriate, if not vocally ravishing, Zinovy. There is colorful work in the many important supporting roles, headed by mezzo Nina Isakova (Sonyetka) and tenor Lev Yelisseyev (Ragged Peasant Fellow). The recording and accompanying booklet are superb.
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Sennheiser’s Astonishing Binaural Recording System


Comment: We were intrigued when Sennheiser announced its binaural system (see “News and Views,” November 1974), but oh when we started to listen! Its capabilities, as outlined below and in our separate report on using the MKE-2002 with the Uher CR-134, are among the most astonishing phenomena we have experienced in high fidelity in years.

But first let’s make sure we all understand the difference between “stereo” and “binaural.” Both are multi-channel sound reproduction systems. Stereo engineers its two (or more) channels for reproduction via loudspeakers and may employ a wide variety of miking techniques to this end. Binaural recordings use two channels only (because we have only two ears—the expression applies here, which it does not to stereo) capturing the sounds as nearly as possible the way they would be by the two ears of an actual listener at an actual event; these sounds are then reproduced via headphones to reinsert the sounds into the hearing chain, so to speak, at a close approximation of the point from which they were extracted.

Traditionally, mikes for binaural work have been mounted inside a dummy head (having approximately the shape and acoustic properties of the average human head) with the mike membranes mounted at eardrum position. Sennheiser uses a stethoscopic mounting to hold the condenser elements just outside the ear canal—either a live wearer’s or that of the supplied plastic dummy head. The power supply for the condenser elements is built into a box around the size of a pack of cigarettes that is permanently attached to the microphone at an appropriate distance from the stethoscope to allow storage in a jacket breast pocket or shirt pocket. It is powered by a 9-volt transistor battery (not supplied) and has an on/off switch and a momentary-on battery-check switch that lights a small green pilot if the voltage is sufficient for use. The mike cable on our sample was terminated in a DIN plug that would require an adapter for the mike inputs for most recorders on the American market. Sennheiser will supply appropriate connectors on special order.

Sennheiser also supplied us with a small demo disc that purports to show how good the company’s “Open-Aire” headphones are, but it was of interest to us primarily because it was made with the binaural system. Now binaural recordings should make acceptable stereo listening, of course; so before trying headphones we played the record via speakers. It was not particularly impressive. The sound quality is not exceptionally clear (whether due to some wear or to occasional overload in the original tape, we couldn’t tell), and of course all attempts to reproduce the sensation of sound sources behind us—entirely possible in binaural reproduction—were sketchy to say the least. But the effect was acceptable as stereo.

Then we tried conventional headphones with an earcup seal designed for maximum rejetion of ambient room noise. The effect improved dramatically. Sound placements—right to left, front to back, near to far, even up to down—appeared more unequivocal, rather like listening to those in particularly fine quadraphonic (read, “four-channel stereo”) reproduction. This is, of course, the claim of binauralism: that every nuance of aural sensation is reproduced, not merely simulated or hinted at, as it must be when loudspeakers and standard miking are used. But, astonishingly, the quality of the recording
seemed to have improved. Specifically, extraneous noise and distortion often were perceived as being in the headphones, rather than the sound; when we concentrated on the sound field itself, the extraneous properties could be ignored the way one ignores smudges on one's sunglasses when looking at distant objects.

Then we switched to a headset of the open-air type that provides very little seal against ambient noise. The verisimilitude was uncanny. Some sounds seemed unequivocally to be in the room—presumably because one can hear room sounds and therefore attribute particularly realistic ones to the room, rather than the recording. Spatial ambiances and three-dimensional placements were reproduced with an exactitude that defies even the best of quadruphony. (Sennheiser has a name for this property: "triaxial" sound, meaning that all axes of three-dimensional space are reproduced.)

When we used the microphone—whether "worn" by a staff member or by the dummy head—we had no trouble creating tapes that, reproduced on low ambiance-seal headsets, delivered the same startling realism—especially realistic ones to the room, rather than the recording. When the dummy head is held in the carrying case by a single bolt. When the head is removed it can be bolted onto the outside of the case, which will hold it at approximately normal sitting height with the case placed on a chair. The microphone and power supply assembly has its own case that fits inside the carrying case along with the head. This way you can take the whole system with you or just the microphone and power supply. Since the microphone elements are held in place in your ears by small bosses on the outside of the condenser elements, they can become uncomfortable when worn for long periods; and it is easier to get extraneous noise pickup (the mike cable rubbing against clothing, for example) when wearing the microphone yourself, though the mike is surprisingly insensitive to this sort of thing. (A cable clip, normally supplied by Sennheiser, was omitted from our test sample; it should be an additional help.) So except where it is of utmost importance that you travel light or that the recording setup remain inconspicuous, we'd suggest you plan to take the dummy head along.

Quad recording is problematical, at best, for the home recordist. It also is expensive (requiring a four-channel recorder and a minimum of four mikes—to say nothing of mixers and quad headphones for monitoring). Binaural recording has been expensive too, until now. That for a mere $330 the home recordist can make tapes that will in a sense outdo conventional quad at its own game is a fact so exciting that we expect the MKE-2002 will be sold out for some time to come. In our opinion the system is fully worth waiting for.

**HOW THE SENNHEISER AND THE UHER WORKED TOGETHER**

Obviously the potential of the CR-134 and the MKE-2002, reviewed in this issue, for tandem use in capturing a candid record of sounds—as they exist—is unique. We have used them at a live music session (Buddah Records artist Michael Wendroff at the New York High Fidelity Music Show) and can imagine endless projects through which they might gladden the hearts of avid recordists. (One word of caution: Get permission before beginning to tape any public event.)

We had planned to include recordings made at the Barrington Fair (a sort of local county fair) and the Old Rhinebeck Aerodrome (which puts on a show with real and copied First-World-War military planes) in New York State, but the short supply of MKE-2002s delayed arrival of our test sample until it was too late. Our experience with the Uher's mono mike at those events gave us a basis for comparison, however, and further convinced us how much we had missed by not having the Sennheiser.

We recorded the Wendroff group both with and without the dummy head, and both with and without the ALC feature of the Uher. In this entire recording the sense of space and place is extremely convincing, the action of the ALC circuit being virtually undetectable. Using the dummy head prevented friction noises when the recordist moved (which weren't severe even when the recordist "wore" the mike) and kept his own occasional mutterings from being reproduced "inside the listener's head" on playback. The head also allowed him to go onstage to assist with a shaky PA mike without missing a beat in his own tape.

The binaural sound allows the listener to hear "through" audience noises and concentrate on the music in a way that the mono recording at the Aerodrome, for example, prevented. Whispered comments from behind the recordist at the Wendroff session reproduce (amusingly) behind the listener; children behind the recordist at the Aerodrome (maddeningly) dominate parts of the tape. And the Uher's ALC action is very audible at explosions in the war scenes, though the likely (and less desirable) alternative would have been severe distortion at each concussion until the recordist had determined what levels to expect and how to predict each detonation.

The want of binauralism in the horse race and midway recordings at the Barrington Fair was particularly frustrating. Though the Uher managed a very good account of the sounds as sounds, a good deal of their excitement is lost when they are compressed into a single channel. And in terms of pure sound, the carefully designed Sennheiser elements are audibly superior to the Uher's mike, which is engineered for convenience, rather than acoustic perfection.

You may feel a little strange, at first, walking around with mikes in your ears; but the dummy, while easier on the recordist, is far more conspicuous. Wearing the Sennheiser and carrying the Uher, our recordist looked to the casual observer as though he were listening to a portable stereo radio. And the recordings he came back with convinced us that there are plenty of fascinating new worlds out there just waiting to be captured by a recordist with this sort of equipment and a little imagination.

Go get 'em, tigers!
Uher's Mighty Mini Portable Cassette Deck

The Equipment: Uher CR-134, a battery-portable stereo cassette deck with automatic bidirectional playback and built-in mono condenser microphone, with simulated leather carrying case. Dimensions (less carrying case): 7¼ by 2¼ inches (control panel), 7½ inches deep plus controls and connections. Price: $378; Z-215 nicad battery, $31.65; Z-135 AC converter, $38.85; F-112 remote control, $16.70. Warranty: six months on parts (other than battery), ninety days on labor. Manufacturer: Uher Werke München, W. Germany; U.S. distributor: Uher of America, Inc., 621 S. Hindry Ave., Inglewood, Calif. 90304.

Comment: Let's say it right off the bat: Never have we seen such capabilities crammed into so small a tape unit. It is battery-portable (using either six "C" cells or Uher's Z-215 rechargeable nickel-cadmium battery), or it can be powered from the Z-135 AC converter. (The CR-134 is delivered without power source.) The AC unit can be used in two ways. It has the same dimensions as the nicad pack and slips interchangeably into the CR-134's battery compartment (whose door has an opening for the AC cord); if the nicad pack is in the compartment, the AC converter can be used externally with a short interconnect cable (supplied) so that it both powers the recorder and recharges the nicad. The nicad pack will go from dead to full charge in about twelve hours; when we used it to record for over two hours at a clip without recharging, it showed no sign of flagging. The AC converter can be left plugged in without damage when the nicad is fully charged.

The built-in condenser microphone—mounted on the control panel between the record/playback level control and the meter—produces surprisingly good sound. With the cassette deck slung over a shoulder we were able to record all sorts of conversations and natural sounds with convincing mono fidelity; you need an external mike or line source for stereo recording. There is a DIN plug below the level control for appropriately terminated dynamic mikes and a "radio/phono" DIN input connector at the side of the unit. Also at the side are an accessory jack for the optional F-112 remote control (start/stop and tape-travel direction) unit, a jack for an accessory monitor speaker, and a level control for that speaker. We preferred to use the built-in speaker for monitoring (or for checking the recording, if it was made live). At the back (or bottom, with the case slung over a shoulder) are the connector for the AC converter and one (covered by a snap-off cap) that can be used to power the unit from an automobile battery and deliver its sound to the car radio (assuming the radio has been equipped with an appropriate mating connector). Uher of America is planning to make available a bracket for automobile mounting of the CR-134.

All these features are accessible through openings in the carrying case. The main operating controls are covered by a flap that can be snapped off and reversed, allowing free access to the entire panel. Its meter is calibrated both in dB (for recording) and in volts (as a battery check during playback). It is of the type that uses a rotating drum showing through a slot as a red line with a "beveled" tip. A meter reading at the center of this bevel will give close to a 0-VU indication for DIN 0 VU; the tip of the bevel will read about ½ dB higher for the same signal level.

Next to it is a four-way switch: off/forward play (or recording)/reverse play/pause. Immediately below the switch is a two-way fast-wind switch, and beside it a small meter that indicates the direction of tape travel in playback or recording. Below the meter are on/off buttons for the built-in speaker (which cuts out automatically during recording), the built-in mike, and an automatic level-control circuit, plus a recording interlock button. The interlock can be engaged only with the deck turned off (to prevent accidental recording) and is released either by turning it off once again or by switching to a fast-wind mode. With the recording interlock button in, the on/off button cannot be switched to reverse (side-2) tape travel. At the right are the tape slot (which has a spring-loaded door or flap), a three-digit counter, and an eject button.

You begin by inserting a cassette, with "side 1" up, end-first into the cassette slot. Then you push down a latch just below the cassette to lower it to operating position, where the record/play head contacts the tape opposite the pressure pad. This is a four-track head; the two elements for the reverse (side 2) direction of tape travel are used only in playback. The erase head, which fits into the small opening just beyond that for the record/play head is, of course, engineered only for the forward tape direction. The large openings at the ends of the cassette are used for pinch rollers; that on the near end of the cassette engages for the forward direction of travel, while that on the far end is used for reverse. Both capstans run continuously as long as the unit is turned on, driven by a single, electronically controlled DC motor.

When the tape comes to the end of the first side in the record mode, the pinch roller releases, but the unit otherwise remains on. If it is in the playback mode, it automatically will reverse its travel direction at either end of the tape. It does not turn off automatically when fast-wound to the end. The counter "counts" upward in the forward direction, downward in reverse. Since you can't see the cassette window while the tape is in the unit, the counter (and the direction indicator) must be relied on for information about tape motion and use. (A suggestion: Before you go out to do any live recording, "measure" your cassettes on the counter, starting at 000. Then you will know when the tape is about to run out.)

CBS Labs made all its measurements with the AC power supply and—following Uher's recommendation—with Maxell UD tape. The lab also checked S/N with the battery supply (some AC supplies contribute significantly to hum) but found it only marginally better. You'll see that the measurements compare well with home cassette decks, the big difference is that most home decks today use Dolby noise reduction. Hess is
entirely audible in cassettes made on the CR-134, just as one would expect, though the sound is otherwise excellent when played back on a high-quality system—either directly from the CR-134 itself or via a home deck.

The Uher's strongest point, however, remains its extreme portability. It is no more bulky than a pair of field glasses, and we used it successfully (see accompanying "project" report) at outdoor events with little trouble from wind noise (in the recording) or fatigue (in the recordist). We must admit that we would cheerfully have given up the monitor speaker in favor of a Dolby circuit board. (A look inside the unit will quickly convince you that something must go if anything is to be added.) Perhaps those who need monitoring would be just as happy with an accessory battery-powered headphone system or an accessory speaker for which a jack already is supplied. Be that as it may, we had a ball using the CR-134 and came away from the experience with some tapes that only it could, as a practical matter, get for us.

**Accuphase: A Welcome New Name in Superamps**

**The Equipment:** Accuphase Model P-300, a basic power amplifier, in metal case. Dimensions: 17½ by 6 inches (front panel); 14 inches deep plus allowance for controls and connections. Price: $750; accessory walnut case, Model AWC-1, $45. Manufacturer: Ken sonic Laboratory, Inc., Japan; U.S. distributor: Teac Corp. of America, 7733 Telegraph Rd., Montebello, Calif. 90640.

**Comment:** Ken sonic Laboratories (founded by the Kasuga brothers, who also founded the Trio Electronics that makes Kenwood products) is a relatively new company that is just making its entry into this country via Teac marketing. We were anxious to test its products not only because the specs are extremely impressive and the equipment equally handsome, but because Teac guarantees the specs for five years! This means, Teac tells us, that should you find (say, via an "amplifier clinic" at a local dealer) your amp is not meeting its specs in any way within the first five years of ownership the company will undertake to see that it does. Though we've heard of guaranteed specs before, we've never had them put before us in such unequivocal and liberal terms.

Teac adds that, though the P-300 and the companion C-200 preamp can be used separately, each is so good it can be heard at its best only with the help of the other. Now this sounded to us like puffery the first time around. We have tried them together, however, and will
comment on this in more detail when we review the C-200 next month. For the time being, suffice it to say that both are superb units and that they are well suited to each other.

The front panel of the P-300 has a pair of meters controlled by four pushbutton switches. One turns off the meters, the others adjust their 0-dB indications for full power (actual 0 dB, or 150 watts), −10 dB (15 watts), or −20 dB (1.5 watts). The speaker-selector switch nearby has positions for off (for headphone listening, for example), “main,” remote 1, remote 2, main plus remote 1, and remote front—this last referring to output jacks hidden at the bottom of the front panel. The amp’s output is shut off automatically when you switch to connections that have no load. Below the meter pushbuttons are level controls for each channel: below the speaker selector is a power-limiting switch with positions for 100, 50, and 25% of full power. The intent of the latter is to prevent accidental speaker damage. While the lab found the calibration to be less exact than the percentage numbers on the panel imply, greater precision would have netted no greater utility, in our opinion.

When the black strip at the bottom of the front panel is pressed it flips down to expose additional features. Of these, only the main on/off switch is accessible with the sub-panel closed. To the right of this switch is a stereo headphone jack that is live in any speaker-selector position. Next come four jacks (hot and ground for each channel) that accept banana plugs and are live only in the “remote front” position of the speaker selector.

Next is a “band-pass filter.” When it is turned on, the output of the amp is sharply filtered below 17 Hz and above 24 kHz. We found it useful in controlling subsonic rumble (appreciable more as slow “pumping” in our speakers’ woofer cones than as sonic degradation) in some discs, but we also felt that it occasionally seemed to reduce slightly the perceived quantity of very deep bass—which could actually be due to “doubling” of subsonic rumble frequencies by the speakers, rather than to reduction of actual bass frequencies in the signal itself. The manual recommends that the filter be left on for normal use to protect speakers. At the right are a pair of pin jacks for input signals and a switch that selects either these inputs or the normal ones on the back panel.

The back panel itself has, in addition, an AC voltage selector, an AC input socket (accepting a removable cord, supplied), an unswitched AC convenience socket, and the speaker connections for three stereo pairs (main, remote 1, and remote 2). The speaker terminals are the type in which a pair of metal plates are pressed together by a (Philips-head) screw and accept either bared leads or spade lugs. They strike us as a good choice in a high-powered amp since they make positive, large-area connection with the leads with little or no chance for inadvertent shorting between leads or between a hot lead and the chassis. But if there’s any danger of tension on the speaker leads, the conne-

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**POWER OUTPUT DATA**

<table>
<thead>
<tr>
<th>Channels Individually</th>
<th>Channels Simultaneously</th>
</tr>
</thead>
<tbody>
<tr>
<td>Left at clipping: 190.1 watts for 0.035% THD</td>
<td>Left at clipping: 163.8 watts for 0.05% THD</td>
</tr>
<tr>
<td>Left at 0.1% THD: 188 watts</td>
<td>Right at clipping: 1960 watts for 0.07% THD</td>
</tr>
<tr>
<td>Right at clipping: 198.0 watts for 0.07% THD</td>
<td>Right at 0.1% THD: 199 watts</td>
</tr>
<tr>
<td>Right at 0.1% THD: 199 watts</td>
<td>Right at 0.05%: 20 Hz to 20 kHz</td>
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</tbody>
</table>

**POWER BANDWIDTH**

<table>
<thead>
<tr>
<th>Channels Individually</th>
<th>Channels Simultaneously</th>
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<tbody>
<tr>
<td>Front panel</td>
<td>Rear panel</td>
</tr>
<tr>
<td>236 Hz for 0.1% THD</td>
<td>150 Hz for 0.1% THD</td>
</tr>
<tr>
<td>188 Hz for 0.1% THD</td>
<td>189 Hz for 0.1% THD</td>
</tr>
<tr>
<td>118 Hz for 0.1% THD</td>
<td>117 Hz for 0.1% THD</td>
</tr>
<tr>
<td>94 Hz for 0.1% THD</td>
<td>75 Hz for 0.1% THD</td>
</tr>
</tbody>
</table>

**FREQUENCY RESPONSE**

- For 0.1% THD: 10 Hz to 68 kHz
- For 0.1% THD: 10 Hz to 41 kHz

**IM distortion**

- 8-ohm load: <0.063% to 177.2 watts
- 4-ohm load: <0.098% to 127.6 watts
- 16-ohm load: <0.060% to 106.9 watts

**S/N ratio**

- Rear panel: 1.0 V 102 dB
- Front panel: 1.0 V 102 dB

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**Accuphase P-300 Amplifier Additional Data**

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Value</th>
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</thead>
<tbody>
<tr>
<td>Damping factor</td>
<td>76</td>
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<tr>
<td>Input characteristics</td>
<td></td>
</tr>
<tr>
<td>Sensitivity</td>
<td>1.0 V</td>
</tr>
<tr>
<td>S/N ratio</td>
<td>102 dB</td>
</tr>
</tbody>
</table>

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**Square-wave response**

- 50 Hz
- 10 Hz
- 20 Hz
- 50 Hz
- 100 Hz
- 200 Hz
- 500 Hz
- 1 kHz
- 2 kHz
- 5 kHz
- 10 kHz
- 20 kHz

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**Harmonic Distortion Curves**

- 150 WATTS OUTPUT
  - Left channel: <0.05%, 20 Hz to 20 kHz
  - Right channel: <0.056%, 20 Hz to 20 kHz

- 75 WATTS OUTPUT
  - Left channel: <0.056%, 20 Hz to 20 kHz
  - Right channel: <0.040%, 20 Hz to 20 kHz

- 1.5 WATTS OUTPUT
  - Left channel: <0.065%, 20 Hz to 20 kHz
  - Right channel: <0.069%, 20 Hz to 20 kHz

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**January 1975**
tions should be tightened very firmly to prevent loosening and possible shorting of the stripped ends.

All this is superb in both sound and operation. Even the meter calibration is extremely accurate—within ½ dB of marked values in the right channel and within ¼ dB at the left. The meter lights flash, incidentally, if the protective circuitry is activated (for instance, by a short at the output) to warn of the condition. Harmonic distortion is extremely low: At 150 watts it runs about one-tenth that of a typical receiver at its (generally far lower) rated power. Since the S/N ratio measures 102 dB the amplifier can be run even at background-music levels without worry about audible noise. The front-panel input and output connections add materially to the unit's convenience when it is used to check out other equipment in your system.

Structural and cosmetic design both strike us as excellently thought-out, and the finish and operation of the parts are exemplary. In short, the P-300 looks (and sounds) to us like a winner.

CIRCLE 144 ON READER-SERVICE CARD

HOW MANY CHANNELS ARE DRIVEN?

As regular readers know, we like to stick with any test procedure we have been using so that our report on Product X will be as closely comparable as possible to that on competing Product Y. And one feature of our amplifier reports has remained constant for years: All measurements, except where specifically indicated to the contrary, have been made with one channel driven.

We might have preferred to do otherwise, all things being equal. When you listen to stereo you obviously use both channels of amplification. But until recently not all manufacturers have written specs on this basis, and advertised power ratings generally have been based on single-channel specs. Where advertising was based on "music power" ratings, a spec for continuous power usually was available, but not necessarily one that also was made with both channels driven and for a full-frequency distortion rating. Hence, in order to allow the reader some way of relating the data as measured at CBS Labs with that offered by the manufacturer, we felt we had to stick with the one-channel-driven scheme—though we always have given clipping characteristics for amplifiers with all channels driven as well.

The advent of quadriphonic equipment added to interpretive problems, of course, in particular because we generally found bigger discrepancies between one-channel measurements and four-channel measurements than between their two-channel counterparts. But the recent Federal Trade Commission ruling on how power and distortion may be specified (see "News and Views," October 1974) has changed the picture materially. Now all manufacturers must specify with all channels driven and relate distortion ratings directly to power ratings.

This gives us new freedom to measure more characteristics with all channels driven, without risking reader confusion over differences between our lab data and the manufacturers' specs. Beginning with this issue, we will show harmonic distortion as measured with all (both, for stereo) channels driven, and we will base "rated power" references on manufacturers' specs for continuous output into 8 ohms with all channels driven or below rated harmonic distortion over the full frequency band (normally 20 Hz to 20 kHz). Should the manufacturer specify in other terms (and often in the past the lab has had to assume its own reference power output because the amplifier under test was not specified in quite the "standard" way), we will use an output figure that seems reasonably to approximate the standard—though we expect the FTC rule will make this increasingly rare.

Basic output readings will be given as they always have been: with individual channels driven to clipping, with individual channels driven to rated distortion, and with all channels driven simultaneously to the clipping point in the tested channel. These measurements all are made at 1 kHz with an 8-ohm resistive load. They can, of course, be compared directly to similar measurements in past issues. Intermodulation measurements, too, will continue to be made with one channel driven.

And power-bandwidth measurements will remain the same—allowing comparison in terms of power, distortion, and frequency between current reports and those prepared before the present change. We will continue to show power bandwidth at both rated distortion and 0.5% THD (when the amp is not already rated at this figure) and carry curves down to the -3 dB points, when they occur within the plotted range of 10 Hz to 100 kHz. The FTC, unlike the old HF power-amp spec which defined power bandwidth, does not recognize the -3 dB (half-power) points; to approximate the FTC power bandwidth from our data, look for the points at which the rated-distortion curve crosses the 0-dB (full rated power) line. The power-bandwidth curve, therefore, represents the best-case maximum power capability of the amp with respect to frequency and without exceeding rated distortion.

The harmonic-distortion curves no longer show this maximum capability but show what might be called the worst-case distortion since in normal program material the demands seldom are at maximum in all channels simultaneously. The present curves cannot be compared directly to those published in the past, of course. A given amplifier, if it were tested both ways, presumably would have similar-looking curves with both systems, but the reference power levels at which the data are taken would be slightly smaller for the all-channels curves than for the one-channel curves. That is, when measuring with only one channel driven we generally were working from a somewhat less conservatively derived power spec than we are now that the FTC rule has gone into effect.

This change in the way power is specified also influences our sensitivity and S/N ratio measurements. Say an amplifier that used to be rated at 50 watts per channel (driven individually) now is rated under FTC rules at 40 watts per channel (driven simultaneously)—a fairly large spread. Our former reference level would have been 50 watts; our present one is 40 watts, though of course the amplifier is unchanged in either gain or noise. Since the rating has dropped by 1 dB, the S/N ratio (the difference in dB between rated power and measured noise) will too. And the sensitivity rating will change commensurately because less input will be needed to drive the amp at 40 watts than to drive it at 50. Thus, if the S/N were 60 dB and the sensitivity 200 mV for the 50-watt rating, they would be 59 dB and about 175 mV for the 40-watt rating. These differences are not great, to be sure; but for intelligent comparison of current reports with older ones you should be aware of the differences.
ESS Improves a Fascinating Speaker System

The Equipment: ESS Model AMT-3, a floor-standing loudspeaker system with "air-motion transformer" tweeter, in wood case. Dimensions: 15% by 39¼ inches (front); 15¼ inches deep. Price: $435. Warranty: lifetime, for original owner, on air-motion transformer; five years parts and labor on remainder. Manufacturer: ESS, Inc., 9613 Oates Dr., Sacramento, Calif. 95827.

Comment: The Heil air-motion transformer is among the most interesting new ideas in high fidelity in many years. By now its operating principles have been so widely discussed that we will only sketch them in here.

A pleated diaphragm is suspended in a strong magnetic field. A conductor running along the flat surfaces of the pleats serves as the equivalent of a voice coil in a conventional dynamic driver; but instead of moving the diaphragm forward and back, as in a cone speaker, the audio current running through the conductor alternately squeezes the pleats together and forces them apart. This design, among other things, dispenses with those elements in conventional dynamic drivers that require the most precision for good speaker design. It may be partly for this reason that an unusual clarity and transparency often is noted in the sound the AMT tweeter produces.

The bass in this model, as in the AMT-1 (HF test reports, June 1973), is provided by conventional drivers. The AMT-1 had a single woofer in a port-loaded enclosure, and we found the bass distinctly less impressive than the remainder of the frequency range—handled by the Heil driver. The AMT-3 has beefed up the bass dramatically. It uses a pair of 10-inch woofers (again in a port-loaded enclosure, but of much larger size), a 6-inch midrange driver (actually handling upper bass and lower midrange), and the Heil tweeter. ESS calls the design the "Rock Monitor" not because it is better suited to rock than to other music (we found it equally good for any music we fed to it), but because its enhanced dynamic range makes it better suited to the levels associated with rock than earlier models in the AMT series were. In big symphonic music we find the added capabilities of the AMT-3 a welcome improvement. And even in chamber music the deeper, cleaner bass adds materially to reproduction quality.

In listening tests we found that its range reaches down to about 30 Hz with very little doubling; with an oscillator source set at lower frequencies there is very little audible output (most speakers will continue to deliver audible, spurious harmonics even when the input frequency is so low that the fundamental no longer can be heard). Response is unusually flat all the way up to the limit of normal hearing. Since the air-motion transformer is a bipolar radiator (it produces equal but opposite wave fronts at front and back) it essentially delivers sound in a figure-eight pattern; at most frequencies, and in normal listening rooms, the "null" spots at the side cannot be heard at all (due partially to room reverberation), though they can be spotted in careful listening with input signals above 10 kHz. Essentially, however, the system may be considered as a quasi-omnidirectional radiator. (Note the close match of the three curves in the response graph.)

The air-motion transformer is mounted at the top of the unit in a compartment that is open toward the sides, through large "ports" cut in the enclosure wall, and to front, top, and back through the grille strip that runs up the front surface, over the top, and part way down the back. The midrange drivers and woofers are mounted...
lower on the front surface. On the back are the terminal posts (accepting bared wires or large spade lugs, and color-coded for polarity) and a three-way balance control: "bright/normal/soft." This control alters output above 1 kHz, having maximum effect (about 2 dB of attenuation between steps) uniformly across the range from 2 kHz up. The lab measured the unit at "normal," and we preferred it at this setting in most rooms and with from 2 kHz up. The lab measured the unit at "normal," and we preferred it at this setting in most rooms and with most program material. The difference is, in any case, fairly subtle.

ESS rates the impedance as "4 ohms minimum." CBS Labs measured it at 6 ohms nominal—which, as it turns out, also is the minimum impedance measured at any frequency in our test sample. The bass rise (at about 70 Hz) does not exceed 8 ohms; above the rating point the impedance value creeps gradually upward, rising somewhat above 8 ohms beyond 1 kHz. Overall, it is one of the flattest impedance curves we have ever seen.

The AMT-3 proved to be slightly more efficient than the AMT-1. The earlier model required 6 watts to produce the standard 94 dB (at 1 meter on axis); the newer one needed only 4.68 watts. This translates to about 1 1/2 dB less input—or roughly 25% less power—to produce the same sonic level with the AMT-3. At the same time the newer model displayed its excellent dynamic range by accepting up to 100 watts (at 300 Hz) of steady-state signals and 300 watts average (or 600 watts peak, the limit of the test amplifier) without excessive distortion. In this last test, an output level of almost 116 dB (at 1 meter) was reached. Amplifier power would not appear to be critical; anything from, say, 15 to 100 watts per channel should be appropriate, depending on the maximum sound levels you want, as long as the signal is of high enough quality to do justice to the AMT-3.

All in all, then, this is an extremely fine speaker—and an exciting one. Since testing the AMT-1 we have had plenty of opportunity to "live with" the Heil tweeter, and we continue to be impressed by its unique clarity and impulsivity of sound. Not that it makes its presence felt in any positive way. On the contrary, the index of its quality is that one so seldom is conscious of it; one hears the music rather than the speaker. The sound of the AMT-3 is effortless, well balanced, and very neutral.

Since the tweeter is bipolar, the precise qualities of its sound and the stereo imaging that a pair of them creates are somewhat more sensitive to placement in the listening room than with typical bookshelf systems, which radiate much less high-frequency energy toward the back. Generally speaking we have found that the AMT-3's ability to create a sense of depth and "air" in the sound image can be inhibited by placing them too close to a wall. But unless you experiment with placement it may not occur to you that an improvement could be made. These are excellent speakers in any case; with careful placement and fine program material they are exceptional.

### A Truly “Professional” Recorder from Revox

**The Equipment:** Revox Model A-700, a three-speed (15, 7 1/2, 3 3/4 ips) half-track or quarter-track stereo open-reel tape deck accepting reels to 10 1/2 inches, in metal case. Dimensions: 19 (wide) by 18 inches; 6 1/2 inches deep plus allowance for feet and connecting cables (back), controls, etc. (top); 7-inch reels overhang at top, 10 1/2-inch reels at both top and side. Price: $1,800. Warranty: minimum one year parts and labor on everything except lamps and fuses; five years on all other parts except heads and capstan roller. Manufacturer: Willi Studer, Switzerland; U.S. distributor: Revox Corp., 155 Michael Dr., Syosset, N.Y. 11791.

**Comment:** If you're into the NAB-reel machines that long have epitomized glamor in high fidelity and in the last few years have grown even more popular, there are two features that probably will strike you as soon as you thread up a tape on the A-700: the lack of a reel-size switch and the unusual design of the idlers and tension arms. In themselves these are not particularly important features, but their handling in the A-700 is indicative of the very special qualities of the design as a whole.

The reel-size switch is not used (though the deck will handle everything from NAB reels down to those with 1 1/2-inch hubs), because the motional and tape-tension logic system in the unit adjusts itself automatically, partly by way of the double tension arms and oversize rubber-surfaced idlers. This system, together with the three motors (a servocontrolled capstan motor with a crystal speed reference, plus separate reel motors) it controls, allows ad-lib intermixing of reel sizes within the design range.

The controls also allow an unusual range of mechanical functions, input modes, and mixing functions. The main transport functions are selected by means of illuminated pushbuttons just below (or in front of, with the deck horizontal) the transport itself. In the first group on the left there are the main AC power switch, a momentary "repeat" button, an "auto" switch, recording selectors for left and right channels, and a momentary "pause." The repeat will switch the transport to rewind as long as you keep it pressed in; when you release it the transport automatically switches into play. We found the feature extremely useful in picking up cues or in checking particular spots (say, a splice of dubious quality) on the tape. The automatic function works only in conjunction with clear transparent leader, spliced.
into the tape. During recording or playback, the unit will run normally until a photocell system in the head assembly encounters the clear leader. If the automatic function is turned off, the transport stops at this point; in the automatic mode the transport begins rewind and reverts to recording or playback when it encounters clear leader earlier in the tape. Though this is an interesting idea, we judged it considerably less useful for the purposes to which our readers generally put a recorder. The pause is not like that on typical home machines; it produces the same effect as pressing the stop button, except that playback (or recording) will recommence as soon as pressure is removed from the pause button.

In the next group of controls are buttons for rewind, fast wind, play (actually play/record), stop, and recording interlock. The interlock button, like those for selecting the channels to record on, glows red in use. The remaining buttons (except for AC, repeat, pause, and counter-reset) all glow white when they’re pressed in. In the last group are a button for resetting the counter and some for tape speeds: 3%, 7½, and 15 ips. The counter reads directly in minutes and seconds (at 7½ ips; at other speeds the readings must be doubled or halved) and is driven by the right-hand tape idler. This is the first true-reading counter on any deck we have tested (except for “input 1” pair has positions for low-impedance mikes, high-impedance mikes, phono, “radio,” and “aux” (line 1). That for the right (“input 2”) pair has the same two mike positions plus others for echo/multiplay, “aux” (line 2), and off. Below each selector is a pair of phone jacks for mike inputs; impedance matching of these inputs is selected at the switch. The phono input is for a magnetic cartridge and includes an RIAA-compensated preamp. The multiplay/echo position is used like the “sound-on-sound and tape-echo switches on home equipment.

Revox A-700 Additional Data

<table>
<thead>
<tr>
<th>Speed accuracy</th>
</tr>
</thead>
<tbody>
<tr>
<td>15 ips</td>
</tr>
<tr>
<td>7⅔ ips</td>
</tr>
<tr>
<td>3⅓ ips</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Wow and flutter (ANSI weighted)</th>
</tr>
</thead>
<tbody>
<tr>
<td>15 ips</td>
</tr>
<tr>
<td>record/play: 0.02%</td>
</tr>
<tr>
<td>7⅔ ips</td>
</tr>
<tr>
<td>record/play: 0.02%</td>
</tr>
<tr>
<td>3⅓ ips</td>
</tr>
<tr>
<td>record/play: 0.03%</td>
</tr>
</tbody>
</table>

| Rewind time, 7-in., 1,800-ft reel | 87 sec. |
| Fast-forward time, same reel | 87 sec. |

<table>
<thead>
<tr>
<th>S/N ratio (re NAB 0 VU)</th>
</tr>
</thead>
<tbody>
<tr>
<td>playback</td>
</tr>
<tr>
<td>record/play</td>
</tr>
<tr>
<td>record/play</td>
</tr>
<tr>
<td>record/play</td>
</tr>
</tbody>
</table>

| Erasure (400 Hz at normal level) | 74 dB |
| Crosstalk (at 400 Hz) |
| record left, play right | 51 dB |
| record right, play left | 50½ dB |

<table>
<thead>
<tr>
<th>Sensitivity (re NAB 0 VU)</th>
</tr>
</thead>
<tbody>
<tr>
<td>line inputs</td>
</tr>
<tr>
<td>R ch: 13 mV</td>
</tr>
<tr>
<td>mike inputs (hi-Z)</td>
</tr>
<tr>
<td>R ch: 0.62 mV</td>
</tr>
<tr>
<td>mike inputs (lo-Z)</td>
</tr>
<tr>
<td>R ch: 0.05 mV</td>
</tr>
<tr>
<td>phono Input</td>
</tr>
<tr>
<td>R ch: 0.7 mV</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Meter action (re NAB 0 VU)</th>
</tr>
</thead>
<tbody>
<tr>
<td>L ch: 3% dB low</td>
</tr>
<tr>
<td>R ch: 3% dB low</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Total harmonic distortion (at -10 VU)</th>
</tr>
</thead>
<tbody>
<tr>
<td>15 ips</td>
</tr>
<tr>
<td>7⅔ ips</td>
</tr>
<tr>
<td>3⅓ ips</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>IM distortion (record/play, -10 VU)</th>
</tr>
</thead>
<tbody>
<tr>
<td>15 ips</td>
</tr>
<tr>
<td>R ch: 1.3%</td>
</tr>
<tr>
<td>7⅔ ips</td>
</tr>
<tr>
<td>R ch: 1.8%</td>
</tr>
<tr>
<td>3⅓ ips</td>
</tr>
<tr>
<td>R ch: 3.0%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Maximum output (line, 0 VU)</th>
</tr>
</thead>
<tbody>
<tr>
<td>L ch: 0.53 V</td>
</tr>
<tr>
<td>R ch: 0.57 V</td>
</tr>
</tbody>
</table>
The four-in/two-out mixing system therefore has a spectacular range of capabilities. Next, to the right, is a group of four rotary switches. That at the upper left selects playback mode (stereo, left only, right only, and left-plus-right mono). Below it is an input/tape monitor switch. At the upper right is a stepped treble control (affecting headphone and power-amp outputs only), and below it is a similar bass control. And below the four knobs are two stereo headphone jacks. One automatically switches off the power-amp output on the back panel; the other does not. At the extreme right are a pair of sliders that control the output to headphone and power-amp connections only.

The back panel has pin-jack pairs for aux (line) 1 and 2 inputs, magnetic phono input, and line A and B outputs. The A output bypasses the front-panel mode switch; B does not. In addition, there are two DIN-type sockets. One is the usual "radio" record/play socket; the other is designed for direct output to the Revox A-722 power amplifier (not supplied)—the "power amp" output specified earlier. There are on the back panel other features that relate to accessories not supplied (and not tested by us) but that can make the A-700 materially more welcome to users interested in special applications: a socket for an external capstan speed control (with a range of 2% to 21/2 ips, according to Revox), one for remote control of a slide projector (using a special sync head not included in our test sample), and a remote-control unit for tape-drive functions themselves.

It goes almost without saying that the A-700's many functions and modes work magnificently. The logic is superbly worked out; it never wastes a second, yet it never threatens damage to the tape nor results in illogical function sequencing even in the hands of the most insouciant of operators. Though we tried to find flaws in the way Revox had worked out which of its controls would override which of their fellows, we were unable to do so. (We did have one minor misadventure, however, when we didn't lock down one reel securely; as a result, damage was done, and in horizontal operation gravity would prevent even this from happening by keeping the reel firmly in place.)

tremely low by any standards. As low in record/play as in playback only—and exceptional are the wow-and-flutter figures, which (unlike those for almost every other recorder we've tested) are as low in record/play as in playback only—and extremely low by any standards.

In some measurements—all made with Scotch 207 tape, the type for which the A-700s delivered in this country are optimized—the fine measurements may be attributed in part to the half-track head configuration of our test sample. Rule-of-thumb guidelines would indicate that S/N figures might be as much as 3 dB poorer with quarter-track heads, for example. But in practice the S/N ratios achieved should be better than those (53 to 60 dB) shown under "Additional Data," because we always measure "worst case" conditions, with the inputs at maximum. In using the A-700 we never found it necessary to advance them more than about half way with typical ancillary equipment.

One observation did take us somewhat aback, though in the normal run of equipment it would not be counted a fault: the speed accuracy, which is not within Revox's ±0.1% spec. At approximately 0.5% slow the speed accuracy is well within normal consumer requirements. Had we been testing the unit for broadcast use, however, we would have asked Revox to supply us with another sample, or to adjust the one we had for more accurate performance, since an hour program recorded on it would be about 20 seconds off when played on a studio machine adjusted for absolute accuracy—critical, perhaps, when you're on the air but hardly a real problem in the home.

The sound produced by the A-700 is excellent. At 3½ ips it is just short of the widest possible range and just tinged with hiss. At 15 ips the sound is totally free and open. To the ear the difference between 7½ and 15 can be established only by A/B comparisons, using superb input signals and first-rate ancillary equipment. And when this sort of sound quality is coupled with the utterly unsurpassed tape-handling qualities and multipurpose input mixing of the A-700, we are talking about equipment that, for all its interest to home recordists, is truly in the professional class.

The Sequerra 1: Quite Probably the World's Greatest Tuner

The Equipment: Sequerra Model 1, a digital-readout FM tuner with multipurpose oscilloscope and built-in Dolby noise reduction, in metal case. Dimensions: 16 by 6½ inches (front panel); 12½ inches deep, plus allowance for controls and connections. Price: $2,500 (without "panoramic" RF tuning-band display, $2,000); wood case, $125 in walnut, $150 in Brazilian rosewood. Warranty: five years parts and labor (scope and incandescent lamps, 1 year), shipping paid one way. Manufacturer: The Sequerra Co., Inc., 71-07 Woodside Ave., Woodside, N.Y. 11377.

Comment: By now we assume that everyone knows about the Sequerra 1, often characterized as "the world's most expensive FM tuner." It also is an extremely fine one. Though there are some available functions (punched-card or pushbutton tuning, for example) that the Model 1 does not include and occasional performance measurement (ultimate signal-to-noise is one) that we may have seen bettered in past lab measurements, the functional design is so encompassing and the over-all performance so superlative that the Sequerra can, with justice, be called "best." It certainly is a superb achievement.

First, a word about the kind of digital tuning that is involved. The tuning circuits themselves are conventional; it is the readout of the tuned frequency that is digital. Unlike "true digital" tuners (those that will tune only to synthesized, discrete frequencies), the Sequerra can be mistuned. The advantage of the digital
readout is that it shows frequency unequivocally and accurately to 0.1 megahertz and is to that extent far more accurate than the normal dial-and-pointer arrangement in distinguishing, say, between a station at 101.5 mHz and one on the adjacent channel at 101.7 (it also will read the in-between point at 101.6), but it can be tuned to 101.53, for example, slightly off the 101.5 frequency. The Sequerra relies on its oscilloscope for more precise centering; a "true digital" design relies on its frequency synthesis.

The scope dominates the front panel. Beside it are the frequency readout, a lighting "stereo pilot" indicator, and the tuning knob. At the sides are two banks of pushbuttons and indicator lamps. The first four at the upper left are interlocked and control the scope display: "panoramic," "tuner vector," and "ext[ernal] vector." Then comes a push-push switch for separation: maximum hi-blend. At the bottom is a Dolby on/off switch. On the right are three interlocked muting buttons: off, interstation, interstereo. (The latter, of course, mutes the output except when a stereo pilot is sensed.) The bottom three are again of the push-push type: mode (automatic/mono), panel illumination (normal/ dim), and AC power (on/off).

Of the oscilloscope modes, the "vector" display should be the most familiar. Amplitudes of output signals are represented by the distance toward the outer edges of the display panel from the center of the scope; mono signals appear as a vertical line running straight up from the center, while stereo signals fill the top quadrant of the scope—the left and right 45-degree lines that define this quadrant represent left-only and right-only signals respectively. When outputs from a quad system are connected to four pin jacks provided at the back, these 45-degree lines represent the two front channels, while those running downward from the center represent those at the back. The vector display thus can be used to check relative amplitudes and placements in any signal source: quad, stereo, or mono.

The "tuning" display also should be familiar. A perfectly tuned station shows as a horizontal line centered in the scope, which displays three lighted vertical graticules (calibration marks). The center one represents the frequency to which the Model 1 is tuned, and the display should be symmetrical about it. Those to the right and left indicate maximum modulation, and the display should not go beyond them if both the station's transmitter and the tuner are being used correctly. Horizontal cross hairs along the center graticule calibrate it for signal strength. Where multipath distortion interferes with the tuned signal, the display will be wiggly, rather than a straight horizontal line. Thus this one display mode gives you much more detailed information about tuning and the quality of the RF signal to which it is tuned than you can get from the familiar meter pair.

The "panorama" display does still more. It too is calibrated vertically in terms of signal strength, but its graticule has vertical lines that represent alternate-channel spacing, and the display itself embraces more than 1.6 MHz of the RF spectrum (showing five alternate channels or nine adjacent ones) centered on the tuned frequency. Each receivable station within this range appears as a "peak"—"purple mountain majesties," so to speak, rising above the "fruited plain" of noise at the bottom of the scope. The shape of the peaks can be used to tell which stations are broadcasting a stereo subcarrier and which have an SCA subcarrier. Where adjacent channels interfere with each other, the display can be used as a gauge of antenna positioning to minimize the interference. (And if you've never before seen this sort of display, we guarantee you'll be fascinated by it.)

On the back panel are two pairs of stereo pin jacks that carry output signals. That for normal use has fixed

![FM Sensitivity & Quieting Characteristics](image-url)
Sequerra Model 1 Additional Data

<table>
<thead>
<tr>
<th>Capture ratio</th>
<th>1 dB</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alternate-channel selectivity</td>
<td>94 dB</td>
</tr>
<tr>
<td>S/N ratio</td>
<td>67 dB</td>
</tr>
<tr>
<td>THD</td>
<td>Mono</td>
</tr>
<tr>
<td>80 Hz</td>
<td>0.07%</td>
</tr>
<tr>
<td>1 kHz</td>
<td>0.10%</td>
</tr>
<tr>
<td>10 kHz</td>
<td>0.20%</td>
</tr>
<tr>
<td>IM distortion</td>
<td>0.15%</td>
</tr>
<tr>
<td>19-kHz pilot</td>
<td>-62 dB</td>
</tr>
<tr>
<td>38-kHz subcarrier</td>
<td>-68 dB</td>
</tr>
</tbody>
</table>

Frequency response
- Mono: + 1/2, -1 dB, 20 Hz to 15 kHz
- L ch: + 1/2, -1 dB, 20 Hz to 15 kHz
- R ch: + 1/2, -1 dB, 20 Hz to 15 kHz

Channel separation
- >42 1/2 dB, 20 Hz to 3.3 kHz
- >33 dB, 20 Hz to 15 kHz

Gain; the second pair, for high-impedance inputs, has a small screwdriver level control. So do the four pin-jack inputs for the external vector display. There also is a detector output (for a discrete-quad adapter if and when a broadcast method is approved) and a jack marked "25 microsecond Dolby." In early samples, you must insert a shorting plug into this jack to convert the non-Dolby standard de-emphasis (75 microseconds) to the new Dolby standard; later samples have the change—which affects only the Dolby mode, of course—already made internally. Future production will omit the jack.

In addition the back panel has an array of screwdriver controls for adjusting calibration of the scope and its various modes and for setting muting threshold. There is a terminal strip (appropriate for bared leads or small spade lugs) for 300-ohm or 75-ohm antenna connections. And there is a multi-pin jack marked "accessory" that is designed for a remote-control unit. It should be on the market (at about $150) by the time you read this, according to Sequerra, and will have six pushbuttons similar to those on the front panel: five for preselected stations and one for manual (non-remote) tuning.

Sequerra provides a checkout sheet for each tuner. CBS Labs' data for our test sample match the checkout very closely indeed. This is particularly surprising since a tuner of this quality puts a premium on the test equipment used, it is touch and go whether the unit under test will prove better than the test setup. The lab had to double check many of the measurements to be sure that it wasn't simply measuring the limitations of its own equipment.

In particular, the stereo quieting, separation, and distortion figures of the tuner are spectacular. Stereo performance is almost as good as mono, and the mono itself is superb. Since a tuner of this caliber defies its critics to be peevish if they can, we might note that our test sample doesn't live up to the specs that preceded (by many months) the actual equipment; but we can't really fault the performance for being merely excellent in these respects. For example, advance data suggested that alternate-channel selectivity would be in the neighborhood of 140 dB! The 94 dB that the lab actually was able to measure falls far short of this, though it is among the best we've ever encountered. And we might note that the tuning is subject to some drift during the first half-hour or so after it is turned on—though any change in tuned frequency is so dramatized by the scope (in the tuning mode, which the manual recommends for most accurate tuning) that you can see (and correct) the drift long before you can hear any signal degradation.

So, peevish though we may try to be, we must concede that the Sequerra Model 1 is not only unique, but a superb tuner.

CIRCLE 145 ON READER-SERVICE CARD

A Tangent-Tracking B&O Turntable With a Mind of Its Own

The Equipment: Beogram 4002, a two-speed (33⅓ and 45) automated single-play turntable with radial-tracking arm and MMC-6000 pickup cartridge, in wood case with hinged dust cover. Dimensions: 19¼ by 15 inches (case); 4 inches deep with cover closed, about 17 inches of vertical clearance with cover fully open. Price: $650. Warranty: one year parts and labor, shipping paid one way. Manufacturer: Bang & Olufs, Denmark; U.S. distributor: Bang & Olufs of America, Inc., 2271 Devon Ave., Elk Grove Village, Ill. 60007.
Comment: In terms of sophisticated design—both cosmetic and mechanical—this is not only a unique turntable, but deserves to be considered as the most impressive we have ever tested. If you're interested in an automatic turntable (not a changer), this is by all odds the most fascinating we have worked with.

Its basic element is a two-speed electronically controlled drive motor, belt coupled to a heavy (4 pounds, 10 ounces) aluminum platter with radial rubber "fins" or "spokes" that support the disc. The platter bearings are mounted on the same independently suspended subassembly (which is unusually insensitive to external shock) as the arm-drive system, which has its own motor. For cueing, this motor can be manually or automatically controlled; during record play, it acts as a servo system, turning the lead-screw assembly that advances the arm in response to minute (less than 1 degree, says B&O) arm displacements.

The arm itself is of the radial tracking or true tangent type and is specifically designed for the MMC-6000 cartridge (see test report, December 1974). It is a "CD-4" pickup—meaning that it will play mono, stereo, or matrixed quad discs, or CD-4 Quadradiscs. At this writing, B&O America is readying (for about $150) a plug-in CD-4 demodulator circuit board for the 4002 (which is sold in Europe with the board as the Beogram 6000).

A setscrew in the assembly at the arm's fulcrum adjusts vertical tracking force, which reads on a small dial visible through a window in the assembly; there is no antiskating adjustment, of course, because radial arms develop no skating force. A second "arm" parallel to the tone arm and about an inch ahead of it contains a photoelectric system that not only is part of the servo for arm positioning during play, but "reads" the surface beneath it to determine where the edge of the record is—or, indeed, whether there's a record on the platter.

The control panel is unique. It is fabricated out of a single piece of spring metal, slitted so that each individual control section can be pressed to activate a switch below it as it bends slightly downward. Normally you need use only the sections along the front: on, advance, cue, backup, and off. If you press "on," the 4002 will turn itself on and the tone arm will move to the lead-in groove of the record and commence play. At the lead-out groove the arm will rise, the arm assembly will return to its rest position, and the 4002 will shut itself off. If you tire of the record before it's over, press "off" and the 4002 will raise its arm and complete the shutoff cycle. It takes about two seconds for the arm to find the lead-in groove of a 12-inch LP, about six seconds from leadout to shutoff. That's all there is to it unless you're looking for a specific passage in the middle of the disc side.

The advance and backup sections of the control panel move the arm slowly toward or away from the spindle, and do so only as long as you continue to press them. Very accurate positioning can be accomplished by a series of quick touches. (Note that the arm cannot be moved manually—only via the controls.) If the record has been playing when you touch these sections, the arm will cueing is automatic and the cueing section must be pressed to lower the arm and recommence play once you have located the correct spot on the disc. For faster cueing you can use the "on" section (for advance) or the "off" section (to back up), and you can go from one of these modes to another in any sequence.

Once pressed, the fast-cue modes will continue to drive the arm until you press another section of the control panel or until the arm runs out of space. If it is running toward the spindle, it will reverse and move toward the off position; if it already is moving away from the spindle, it likewise will continue toward the off position; once the sensor is beyond the edge of the record the arm no longer can be lowered.

We found this the one point on which we could "fool" the logic of the system. If you put a small (less than 12-inch) disc on the platter and begin play, then raise the arm and back it off until the stylus is beyond the record edge but the sensor isn't, the pickup can be lowered to the record-support fins with the cueing switch. So it is possible to damage the stylus, but in normal practice we consider it highly unlikely.

But what about turntable speed? The automation takes care of that, too, for all normal purposes. When you press "on," a little dial above the 33-rpm section of the control panel lights up. It is calibrated from -3% to +3% in 1% increments and has a small wheel for adjustment. It works with the servocontrol system, which according to B&O is more accurate than any stroboscopic system. The unit, therefore, has no strobe. If the advancing tone arm finds no disc until it reaches the 7-inch diameter, the 33 dial will go dark and that above the 45-rpm section will light up—indicating that turntable speed has switched automatically. If you have a 7-inch LP or an oversize 45, you can override the automatic speed selection with the manual portions of the control panel. An adapter for the large-hole 45s is provided, incidentally.

If the 4002 seems to have a mind of its own, its designers most certainly do have. The entire design is exceedingly well thought through, and of course its cosmetics are spectacular. It is astonishing to find so much—two motors, a vibration-trapping suspension system, logic circuitry, space for CD-4 circuitry, and so on—contained in such a shallow base: barely 2 inches from tabletop to control panel.

Performance also is excellent in terms of lab measurements. No measurable error could be found in the exact-speed calibrations of the unit at any line voltage used in our tests. The fast and slow settings on these dials, measured at extreme rotations (though not precisely at the 3% calibrations in each case) are +3, -3%5% for 33 rpm and +3%, -4% for 45. Flutter is extremely low at 0.025% average (0.05% maximum), and so is rumble at -64 dB (ARLL). No arm friction could be measured, and since the tripping system at the end of the disc does not depend on arm motion as such it adds no drag either. Stylus-force calibrations (in half grams from 0.0 to 1.5) all measured 0.1 gram high—a negligible discrepancy.

The lab measurement of arm resonance showed a 10-dB rise at about 12.5 Hz. Apparently, the frequency is fairly optimum for avoiding both audible-range effects and warp-tracking problems, and, despite what seems to be a fairly high amplitude at that frequency, we encountered no problems—either in tracking or listening to warped discs.

This, then, is an exciting piece of record-playing gear: elegant, silky-smooth, and thoroughly competent. And it is delivered equipped with a fine cartridge, as last month's report documented. Old-timers, used to hooking a finger under the grip on the pickup head and deftly dropping the stylus into the first groove by hand, may find the 4002's ultramechanized approach Orwellian at first (though they should find that their records pick up fewer gouges in the long run), but we doubt that even those who are most opposed to automation could hold out long against this turntable's charms once they've tried it.
Audionics' Speaker "Kit" for the Real Do-It-Yourselfer


Comment: This unit is called a "kit" for want of a better word. Unlike the more familiar kits, which generally give you either a prefinished enclosure (one now is available for the TL-90—see below) or precut parts ready to assemble, this one gives you only plans and notes on construction. You must decide on the cosmetic treatment and even enclosure configuration yourself—and supply the necessary materials for the enclosure.

Audionics offers information on two enclosure types, both of them with transmission-line loading of the woofer. The taller—and somewhat simpler to construct—was chosen by our kit-builder. Its transmission line begins at the bottom of the woofer chamber and "folds" upward to emerge at the back top. A lowboy design has a second fold in the transmission line, so that its mouth is at the bottom of the enclosure. Neither should pose severe problems to the reasonably accomplished woodworker equipped with a radial-arm or bench saw; but they should not be attempted by the hammer-and-nails duffer if an acoustically and cosmetically satisfactory system is to result. As in any speaker enclosure, joints must be solid—and therefore accurately fitted—for correct performance.

Audionics also supplies acoustic "stuffing" material, a prewired crossover board, and the necessary parts to complete the electrical portion of the system. The crossover has been changed somewhat since our samples were shipped, and the design now has spring clips for the amplifier leads. (Ours have screw terminals that could permit shorting of the leads, so we are glad to learn of the change.)

Obviously, the way that the product tests out in the lab will to some extent depend on the skill of the constructor. We only can report, therefore, on how our samples came out, though we would not expect major differences in other competently constructed samples.

CBS Labs' measurements, plus our listening tests, show our speakers to have quite flat response, with the fairly high sensitivity and tight (rather than boomy) bass associated with transmission-line systems. It delivers the standard sensitivity (or efficiency) test level (94 db at 1 meter) for only 2.1 watts' input. It accepts steady-state input signals up to about 35 watts without exceeding distortion limits, a 300-Hz tone at this level will blow the fusing (supplied). Pulse power to 150 watts (average, or 300 watts peak), the limit of the test amplifier, can be fed in without excessive distortion. In the steady-state test, levels of above 100 db were reached; pulse tests ran to 112\% db. Thus good dynamic range can be achieved even with fairly modest amplifier power—say, up to 30 watts per channel.

Audionics rates the system at an impedance of 7.5 ohms. Though our samples dropped to this value at the extreme top of the audible range, the rating point (just above the bass-resonance rise), as measured at the lab, was 12 ohms at about 80 Hz. The impedance curve is fairly flat. It drops to 8 ohms at 5 kHz and then rises again before dropping at the top end. We would have no qualms about paralleling it with other speakers, working from a transistor amplifier, on the basis of the data.

Pulse tests, particularly at 3 kHz, showed some evidence of ringing, but it is not severe. (Audionics claims an improvement in this respect with the new crossover.) The sound is very good; by contrast to many American systems (the kit is based on a design by Radford of England, whose drivers and crossover are used in the system) the bass is a little reticent, though some listeners express admiration for its "lack of boominess." The design admittedly aims for tight, clean bass, rather than maximum "bass sensation." Consequently, some listeners prefer the sound with loudness compensation in the system driving the speakers while others do not. (We should point out that bass-resonance properties of the system can be tailored to some extent by the way in which the constructor installs the acoustic wadding.)

The sound is quite smooth at the top, but here too a...
distinction must be drawn between "typical" European and American design objectives. The wide dispersion that so many American systems strive for is not universally considered a virtue in Britain. The extreme highs (above 10 kHz) are not as broadly dispersed in the Audionics system as they are in some American systems we've tested, though, as it happens, the same tweeter is used in some systems manufactured here. It does provide extended highs, a good spread even by American standards, and firm stereo image.

All told, we are pleased with the sound of the TL-90s; in addition they have the virtue of a considerable saving with respect to their finished counterparts, which cost $449 apiece. Our constructor spent about $30 on wood and grille cloth and needed five and a half hours to complete a pair of the speakers. So the total price (exclusive of time, glue, miscellaneous hardware, finishing materials, and electricity for his power tools) of the pair was some $390—as opposed to $898 for the finished units. Furthermore, he had the opportunity to tailor the styling to his own needs. The kit therefore offers both a challenge (to the home constructor) and an opportunity (to the music lover).

If you want the opportunity without the challenge (and aren't looking for a custom cabinetry job), Audionics has just added a second kit that includes prefinished cabinetry at $340 (shipping included). The standard finish is a rosewood pressure laminate. Teak and black finishes also are available on special order—at no increase in price, but requiring extra waiting time. So now you can buy the TL-90 in three stages of completeness.

**An Auto-Reverse Cassette Deck from Toshiba**


Comment: This report establishes two "firsts" in our testing program: the first auto-reverse home cassette deck we've measured, and the first product of any description from Toshiba—a company perhaps best known for its mass-market wares, but the producer of a component line as well.

There is a tilted blackout control panel at the back with lighting direction indicators at the left, Dolby and recording indicators near the center, and recording meters at the right. At the left of the main panel is the cassette well with buttons for the usual functions (plus reversing) in front of it. They allow the user to go directly from play into either fast-wind and back without pushing "stop" but not directly from one fast wind mode to the other. The stop button also controls eject; if the transport is running, a push on this button will stop it but not eject the cassette, which requires that the deck already be stopped—a nicely thought-out prevention for unintentional eject in start-stop work. The entire system returns automatically to "stop" at the end of the tape in any transport mode, unless an automatic-reverse mode is triggered, of course.

The automatic reverse is controlled by a three-position mode switch to the right of the transport buttons. The "nonreverse" position allows manual selection of transport direction (using the "reverse" button) in either recording or playback. The "reverse" position causes the deck to change automatically from forward (tape moving toward the right) to reverse (tape moving left) in either recording or playback at the end of the tape. In the "repeat" position the deck will reverse at both ends in playback; in recording it still will stop at the end of the second cassette side.

The automatic reverse is controlled by a three-position mode switch to the right of the transport buttons. The "nonreverse" position allows manual selection of transport direction (using the "reverse" button) in either recording or playback. The "reverse" position causes the deck to change automatically from forward (tape moving toward the right) to reverse (tape moving left) in either recording or playback at the end of the tape. In the "repeat" position the deck will reverse at both ends in playback; in recording it still will stop at the end of the second cassette side.

Next to the mode selector is a tape selector: "normal"/"hi-fi"/"chrome." Toshiba recommended TDK types D, SD, and KR, respectively, for these settings, and lab tests were made accordingly. At the extreme right front are switches for Dolby action and AC power. Behind them are a pair of sliders to control recording level, while behind the two three-position knobs are similar sliders to control playback level. Unlike most cassette decks, the PT-490 does not control source output during recording via the playback sliders; only the recording-level controls do that.

We found the fixed source-feed level via the PT-490 higher than input levels unless we cut recording levels back to peak at roughly -10 VU. Because of this "mismatch" we prefer the more common system using an output (not just playback) level control for the return feed to the stereo system, though the point obviously is not a major one for most users.

There is a turns counter at the back of the top plate. At the bottom right corner of the base are a stereo head-phone jack and mono phone jacks for left and right mike inputs. The latter disconnect the line feed when the mikes are plugged in. The line input and output connections are on the back of the unit: both pin-jack pairs and a DIN connector. There are no user-accessible Dolby adjustments.
The most newsworthy feature of the deck is, of course, the automatic reversing. Toshiba achieves it by using a four-track record/play head in the central (normal) position, aligned with the cassette's pressure pad. This is flanked by two erase heads (one for forward and one for reverse) that fit into the smaller openings between the record/play head opening and those normally used for the erase head (on one side) and the pinch roller (on the other). The transport uses both of these latter openings for capstan pinch rollers, which one engages depends on the direction of tape travel.

The system works very well indeed, though truly instantaneous reverse is possible only in playback. In recording, the manual reverse button is locked; you must stop the tape before it will operate. With leaderless cassettes, the turnaround time in automatic reverse is about three seconds; leader in the tape increases the "missed" time during automatic-reverse recording, of course. So while a C-120 cassette will, for example, allow two uninterrupted hours of unattended recording on the PT-490, there will be a noticeable break at the end of the first side.

Mechanically the PT-490 is no more complex than its nonreversing counterpart except for the extra pinch roller; there are no shifting heads or flipping cassette mount. This simplicity of design strikes us as all to the good. Unlike the more complicated convenience designs (including 8-track decks with their shifting heads), the PT-490 would not appear to be particularly prone to azimuth alignment problems or to tape-to-head contact changes with reversed tape feed. Response measurements confirm, in fact, that record/play behavior in the two directions is virtually identical— unlike that of some mechanically elaborate reversing decks we've tested in the past. And, of course, the simpler the design, the less there is to go wrong in any respect.

By checking the prices at the beginning of this report you'll see that the reversing feature adds $100 to the price of a $250 Dolby deck. The extra costs are due largely to the extra switching and wiring, it would appear. Basically, then, this is a moderate-priced Dolby deck with a particularly efficient reversing system added and with no corners cut in the basic design.

That basic design represents good value, in our opinion, though a comparison with the measurements for the "better" (nonreversing) Dolby decks we've tested at, say, about $350 naturally will turn up better performance—particularly obvious in record/play response curves, where all the lab's measurements of the PT-490 show a gradual rolloff in the treble and an ultimate top frequency of 20 kHz, which is slightly bass-heavy but particularly hiss-free sound whose balance can, to some extent, be restored by a gentle treble touchup. It certainly is not out of line for a $250 deck.

One word about the meters. The lab's measurements show those in our test sample to be set for a 0 VU indication at Dolby reference level (about 2 dB below DIN 0 VU) or even lower to allow greater headroom for peaks. The Toshiba's metering naturally will turn up better performance—particularly in record/play behavior in the left direction, where all the lab's measurements of the PT-490 show a gradual rolloff in the treble and an ultimate top frequency of 20 kHz, which is slightly bass-heavy but particularly hiss-free sound whose balance can, to some extent, be restored by a gentle treble touchup. It certainly is not out of line for a $250 deck.

That leaves us with one outstanding question: Is the automatic-reverse feature worth $100? Judging from reader correspondence, we think it will be to many users, particularly when the reversing is accomplished by so sane a design. For once we can say without equivocation that we see no negative side effects to the inclusion of the reversing feature—it adds much to the convenience of the unit without discernibly subtracting anything in performance, reliability, or versatility.

CIRCLE 141 ON READER-SERVICE CARD
Onkyo's "Totally Engineered" TX-560 Receiver

**The Equipment:** Onkyo Model TX-560, a stereo FM/AM receiver in wood case finished in wood-grain vinyl. Dimensions: 18½ by 5½ inches (front panel, including allowance for feet); 13½ inches deep plus allowance for controls, connections, etc. Price: $449.95. Warranty: three years on parts, two years on labor; shipping paid one way. Manufacturer: Onkyo Corp., Japan; U.S. distributor: Onkyo Sales Section, Mitsubishi International Corp., 25-19 43rd Ave., Long Island City, N.Y. 11101.

**Comment:** Onkyo's phrase "totally engineered" apparently refers to the integration within this receiver of a number of features—direct-coupled differential amplifier, phase-linear FM IF circuitry, ceramic AM filters, negative-feedback tone controls, thermal overload protection, exceptionally smooth tuning control, "transient killer" to prevent "pops" in the speakers when the unit is turned on and off, and so on—that Onkyo engineers believe important in a modern, well-designed receiver. But a stereo receiver is more than electrical engineering, of course; and this one is a handsome, sanely designed piece of music-reproduction equipment.

The faceplate is finished in a bronzy anodizing with well laid-out cream-color lettering. The wide tuning dial lights up green with a red pointer tip; only the meters in use (signal-strength for AM and for FM and center-tuning for FM) also light up green. The tuning knob to the right of the dial has a particularly attractive feel; for quick retuning, a single sharp twirl can drive the pointer all the way from one end of the dial to the other due to its silky bearings and heavy flywheel action.

The remaining front-panel features are lined up below the dial. Next to the headphone jack (which is live at all times) at the extreme left is the AC/speaker switch, with positions for AC off, speakers off, any of three stereo pairs of speakers, and the first of these pairs plus either of the other two. Next are the bass and treble controls, each with friction-clutched elements for the two channels. The volume control near the center of the panel has a flange element for balance. Then come a series of pushbuttons for high and low filters, loudness, mono/stereo mode, tape monitors 1 and 2, and FM muting. A

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**Square-wave response**
Onkyo TX-560 Receiver Additional Data

**Tuner Section**
- Capture ratio: 2 dB
- Alternate-channel selectivity: 74 dB
- S/N ratio: 66 dB
- THD:
  - Mono: 0.02%, 20 Hz to 20 kHz
  - R ch: 0.02%, 20 Hz to 20 kHz
  - L ch: 0.03%, 20 Hz to 20 kHz
- IM distortion: 0.20%
- 19-kHz pilot: -48 dB
- 38-kHz subcarrier: -68 dB
- Frequency response:
  - Mono: + 1½, -3 dB, 30 Hz to 15 kHz
  - R ch: + ½, -3 dB, 20 Hz to 13 kHz
  - L ch: + 0, -3 dB, 20 Hz to 13 kHz
- Channel separation:
  - >38 dB, 120 Hz to 2.6 kHz
  - >26 dB, 31 Hz to 9.5 kHz

**Amplifier Section**
- Damping factor: 46
- Input characteristics (for 43 watts output):
  - Sensitivity
    - Phono: 2.8 mV
    - Mike: 3 mV
    - Aux: 190 mV
    - Tape 1: 228 mV
    - Tape 2: 228 mV
  - S/N ratio
    - Phono: 71½ dB
    - Mike: 68 dB
    - Aux: 89½ dB
    - Tape 1: 87½ dB
    - Tape 2: 84 dB
  - RIAA equalization accuracy:
    - + ½, -2½ dB, 20 Hz to 20 kHz

**Harmonic Distortion Curves**
- 43 WATTS OUTPUT
  - Left channel: <0.03%, 20 Hz to 20 kHz
  - Right channel: <0.01%, 20 Hz to 20 kHz
- 21.5 WATTS OUTPUT
  - Left channel: <0.05%, 20 Hz to 20 kHz
  - Right channel: <0.09%, 20 Hz to 20 kHz
- 1K WATTS OUTPUT
  - Left channel: <0.07%, 20 Hz to 20 kHz
  - Right channel: <0.09%, 20 Hz to 20 kHz

There are the usual pin jacks for signal leads on the back panel, plus a DIN input/output connector as an alternate to the tape-1 pin jack. The Onkyo provides for external AM (long-wire), "local" 300-ohm FM, regular external 300-ohm FM, and 75-ohm coaxial FM leads. The "local" connection is recommended in using the supplied twinlead dipole where strong local stations overload the front end when it is connected to the regular 300-ohm posts. There are heavy-duty binding posts, suitable for bared leads or large spade lugs, for the outputs to three stereo pairs of speakers. Two AC convenience outlets, one of which is switched by the front-panel AC/speaker knob, are provided.

"Totally engineered" might be taken to mean that everything in the TX-560 works well together, which it does. The dual tape monitors allow flexibility in the choice of ancillary equipment, as well as dubbing from tape 1 to tape 2; the mike input allows you to record live via the receiver (in mono of course, and without mixing); the amplifier section has low distortion and ample power for two typical stereo pairs of speakers; the FM section has excellent quieting—particularly in stereo—and exceptionally smooth behavior both mechanically and in terms of freedom from tuning transients. For all this, the unit does not literally confirm its published specifications in a number of respects. The lab data are consistent with the specifications, however (better in some respects, not as good in others), and at no point would we consider the differences really significant in terms of listening quality.

The 30-dB "minimum usable" sensitivity figure, for example, proved to be 2.5 microvolts in our test sample, whereas Onkyo gives 1.8 microvolts as the spec. This sounds like a major difference, but since the tuner section exceeds 50 dB of quieting (in mono) for all inputs above 7.5 microvolts the actual performance of the FM section in terms of quality listening is, in this respect, actually better than many a receiver testing out at 1.8 microvolts or less. Likewise many receivers never achieve 50 dB of quieting at all in stereo, while the Onkyo does so for most input strengths in the normal operating range. Other measurements for this section are good or excellent.

Onkyo rates the amplifier section at an ambitious 0.2% harmonic distortion. At 43 watts per channel, the power rating with both channels driven is just above the clipping point of our test sample as shown in the powerrate data; the result is that harmonic distortion rises above the rating point at the frequency extremes. Note, however, that it is above 0.5% (a more common rating point) only in the very deep bass. And it typically is in the neighborhood of 0.03% at half-power output—a figure that can be bettered by mighty few receivers. Again, the other measurements for the amplifier section confirm Onkyo's specs in aggregate, if not in all specifics, and represent good to excellent performance.

What does it all add up to? A receiver that offers solid performance and functions, without flamboyance. Though we generally look askance at such advertising terms as "totally engineered," the phrase does seem to have real meaning when applied to the TX-560, which consistently puts its performance and design priorities in rational order to deliver quality and flexibility while dispensing with the frills that add more to cost than to usefulness.
Guests whirl to Prokofiev's dance music in Scene 2 of *War and Peace* as staged by the Bolshoi Opera in Moscow.

by Conrad L. Osborne

**War and Peace: A Repertory Candidate?**

The Bolshoi recording of Prokofiev's huge, problematic opera highlights Columbia's first Melodiya release.

Prokofiev's *War and Peace* is one of the two operas written since 1940 that seem to stand a chance at old-fashioned international repertory status (the other being *Peter Grimes*). It first came to American attention in the 1950s, when a severely abridged television production was offered by NBC, followed by MGM's release of a recording, also extensively cut, that featured Belgrade soloists with Viennese choral and orchestral forces. Now the work has received its first American stage production (by the Boston Opera last spring), and this month finally brings domestic release of Melodiya's Bolshoi recording, excerpts of which have been available on Angel SR 40053 since 1969. (The complete set circulated here briefly in mono on MK 218D.)

Prokofiev had in mind a *War and Peace* before the outbreak of World War II but got at the composition itself in 1941, under extraordinary personal circumstances. With Nazi armies striking toward Moscow via Smolensk (just as Napoleon's had done in 1812), a number of prominent Soviet artists were removed from the capital to the Caucasus. Prokofiev was among them. Behind him in Moscow remained his wife and children; with him to the Caucasus went Mira Mendelson, the young poet who had already collaborated on the libretto of *The Duenna* and who was to become his second wife.

The composer evidently worked well, for the first version of *War and Peace* was completed in less than a year. Sensibly, it focused on a portrayal of the more important personal relationships shown by Tolstoi, in particular that between Natasha and Prince Andrei. The Soviet cultural authorities, however, wanted a heavier emphasis on patriotic monumentality, and this meant beefing up several of the *War* scenes, chiefly to further glorify the figure of Marshal Kutuzov and underline the invincible-
were to be performed on separate evenings. This made scenes and figures, one has to concede, that a great deal of

from many earlier Russian operas, and on the power of his music and of live performers to suggest instanta-

in these scenes and introducing more choral writing re-

together. So one has the choice of leaving him a virtually anonymous cog in the plot, whose name had just as well be Sam or Max, or writing him in more completely by way of explanation.

The opera does founder somewhat on these difficulties, but this fact should be considered in the context of much that is powerful and beautiful. Andrei and Natasha are exquisitely written, from their opening utter-

apparently reproduces all the sections the composer

there can be no such thing as an adequate stage presenta-

which he brings back very touchingly when the disaster of her infatuation with Anatole has struck. And Anatole is another highly successful musical character, elegantly insinuating in his plea to Natasha, wonderfully arrogant in his argument with Dolokhov over the intended elopement (this entire scene is strong, building to a fine, wild climax as Anatole and the coachman Balaga launch out through the storm).

Also excellent is the encounter between Natasha and Maria Ahrosimova, after the elopement plot has been foiled, built around a triplet figure in thirds that is implacably repeated—we feel Natasha being broken. The big ballroom scene (Scene 2, one of the two added for the 1946 production) contains excellent dance music (waltzes that are much more than incidental, offering nice commentary on the social atmosphere and clever harmonic suggestions that something is quite wrong beneath the surface) and affords a needed opportunity for establishing the characters of the older Rostov and the Countess Hélène. In fact, it is hard to imagine how Scene 7 (in Pierre's study, involving Hélène and others from the "French" side of society) could work at all without the earlier one, and the composer evidently took a little staccato figure from the introduction to Scene 7 to fashion Hélène's most characteristic utterances in Scene 2, so that it comes to represent the empty frivolity of her circle.

When the opera moves into the war scenes, the writing becomes more uneven. The quality has its ups and downs, and the style its ins and outs. I think we would sense this problem even if we did not know the opera's compositional history. It sounds as if Prokofiev originally intended a series of short tough scenes in a rapid succession, depending for their cumulative effect partly on their punchy brevity and partly on a type of scenic real-

When Andrei and Natasha from the time of their meeting. We are already in Part 3 of Book II of the Tolstoi, and most of the major characters are well along in their development. If from this point one decides to build an opera primarily around Natasha and Andrei and the necessary "support" scenes and figures, one has to concede that a great deal of important material will be left to the imaginations or prior knowledge of the viewers. This is less a question of plot than of character: who Andrei and Natasha are, what people and happenings have brought them to their read-

in their opposed points of view.

For Pierre, here is the central character of the novel or Somewhere on the periphery of things, with a character almost impossible to embody musically. He has little to do with the happenings selected for the opera, but regrettably he does have a little; he cannot be excised al-

Sixty of the Russian people. When a stage production was finally projected for the Leningrad Maly (in 1946, Samuel Samosud conducting), Prokofiev added two entire scenes, one each for the War and Peace segments, which were to be performed on separate evenings. This made thirteen scenes in all, several of them much expanded from their original forms. But in the event, only eight were mounted at Leningrad, and, though the composer continued to tinker with the work until his death, he never saw it produced in anything close to complete form. The score published by the Soviet State Publishing House (distributed in this country by Belwin-Mills) apparently reproduces all the sections the composer eventually wished included; the Bolshoi production pre-

necessity for strengthening the patriotic element

in these scenes and introducing more choral writing re-

in this sequence would be the scene between Natasha and the fatally wounded Andrei and the parallel tableaux built around the figures of Na-

in these scenes and introducing more choral writing re-

The necessity for strengthening the patriotic element in these scenes and introducing more choral writing re-
sulted not merely in more music, but in a predominance of music of a certain sort—tuneful, simple, uplifting—that lends quite a different tone to the proceedings and radically alters the relative importance of happenings and characters. This is not necessarily all to the bad; some of the choral writing is good of its sort, and the composer’s biggest patriotic tune, though it sounds rather treacly in the mouth of Kutuzov in his aria, becomes inspiring from the throats of a full mixed chorus. The Soviet Committee on the Arts was probably right (for whatever reasons) in feeling that the war scenes needed some strengthening to hold their own with the peace scenes.

But the clash of styles, and the sense that one element is intruding on another, is hard to deal with. More than once Prokofiev’s punget little operatic scene comes to an unprepared halt, and the Soviet cantata takes over. Even if they are equally good (and, in fact, parts of the cantata are better than parts of the opera), both cannot be organic. Napoleon is weakened in proportion and, strangely enough, so is Kutuzov; though Prokofiev added the scene of the war council at Fili to show Kutuzov dominating the situation with the other generals, this conversation is the weakest scene in the whole work and, musically speaking, passes unnoticed. Finally, Pierre, who was clearly intended to emerge as a key character in the latter portion of the work, is unable to do so—Prokofiev never really located him in his music, and he stands no chance against the massive choral episodes and scenic spectacles.

All the same, there are fine moments in the second half of the opera, even aside from the Andrei/Natasha scene. Kutuzov’s first entrance has a true nobility, especially in its orchestral introduction, and the mournful interlude, with oboe solo, that follows his aria is memorable. The entire Napoleon scene is great fun—bursts from the snare drum, angry splutterings in the brass, a vivid accented figure for muted solo trumpet, and some fine, aggressive declamation for the emperor himself. The conflagration scene in Moscow captures some of the chaotic terror and pathos of its subject, and by introducing the character of Platon Karatayev gives Pierre one of his few chances to show something of himself. Both this scene and the one that follows (on the Smolensk road) seem divided in two, opening with a grim picture of suffering but concluding with a chorus of determination or triumph, in the case of the conflagration scene quite ordinary. The scene on the road shows the retreat of the French and their prisoners (Pierre and Platon among them) in a raging blizzard, the murder of Platon, the rescue of the prisoners by Denisov and his partisans, and finally the arrival of Kutuzov with the aforementioned choral ode based on the theme of his aria. This works better; the evocation of the snowstorm is graphic, and the final chorus carries what we might call the weight of its simplicity.

The less successful sections of Part 2 are a couple of the choral segments where Prokofiev drops his work to straighten up and salute; most of the writing for Pierre, who just flounders around in the music (when unemphatic conversation is repeatedly carried up to A and B flat, where it keeps marching along without any strong feeling beneath it, you know the composer’s stuck); and the war council scene, which is really nowhere musically, though happily short.

I doubt that War and Peace is quite a great opera, though exposure to some live productions is necessary before making up one’s mind about a stage piece. But there isn’t any doubt that it is an important work that contains much heartfelt, superbly crafted writing and that it should be staged by every company that has the resources and takes itself seriously from an artistic viewpoint.

Without intending any detraction from it, I cannot resist a wistful glance over the shoulder at the operatic Prokofiev that seemed to be developing in the teens and twenties of the century. For although three of his last four operas have definite strengths and merits and can legitimately be viewed as more workable than The Gambler or The Flaming Angel (though not Love of Three Oranges, which remains his most complete operatic statement), they never quite show the musical or theatrical ambition, the intellectual and emotional individuality and integrity, of those earlier pieces. Hearing them in juxtaposition, I cannot escape the feeling that at some level he stopped reaching after the things that most fascinated and excited him, and began writing—usually well, nearly always with great skill—in areas that did not fully challenge him or stir the farthest reaches of his imagination. In 1917, Dostoevsky’s Alexei and the gambling house; in 1919, acid Gozzi/Meyerhold satire; in 1926, the obsessed Renata. In 1942, Marshal Kutuzov with a song about Moscow.

The Columbia/Melodiya recording of the Bolshoi production easily displaces the old MGM release, long unavailable in any case. The latter had some capable leading artists in Radmilla Bokacevic (Natasha), Dunshan Popovich (Andrei), Biserka Cvejic (Sonya), and Drago Startz (Anatole), but with the possible exception of Popovich none is as good as his Bolshoi counterpart, and the general ensemble level is far lower, as is the state of the engineering. Beyond that, it is brutally cut: two scenes gone entirely (7 and 12—Pierre’s study and the Moscow fire), a couple of others gravely disfigured, and still others shortened less drastically, altogether, forty to forty-five minutes’ less music than is on the new set.

Of some scholarly interest, perhaps, is MGM’s inclusion of the overture in place of the choral epigraph—the second and first numbers, respectively, in the score. Neither is really distinguished music, but the epigraph is more imposing and theatrical. Its words (drawn directly from Tolstoi, like nearly all of the libretto) begin with the opening of Chapter 2, Part 3, Book III—‘‘The forces of a dozen European nations burst into Russia’’—and the piece might seem more logically placed at the head of Part 2 of the opera. But its position in place of the overture does set a background of menace to the ‘‘peace’’ scenes that immediately follow.

To detail all the cuts in the Bolshoi performance would be tiresome, and some of them are puzzlingly brief (for eight or ten bars, why bother?). But we should take note of the more substantial ones, all in Part 2: two cuts totaling about nine pages in Scene 8 involving the chorus, Vassilissa, Andrei, and Matveyev, thus eliminating the last role altogether (part of this is included on the MGM recording); a three-page monologue for Pierre in Scene 8; part of Kutuzov’s opening address with choral replies and some lines for an adjutant, still in Scene 8; the latter section of Kutuzov’s aria in Scene 10 (where the orchestral postlude noted above also becomes a pre-
thrust in his singing—the role is written very high and, while he has ways of managing everything gracefully, the more dramatic moments (as in his battlefield monologue) need more total core and juice to make a full effect. It would also be good to hear a front-rank singing bass as Kutuzov—Alexei Krivchenya, a fine artist, is essentially a character singer. He is in fresher voice here than on the more recent Khovanshchina set, and no doubt is an excellent Kutuzov in the theater, but his tone tends to dryness and constriction just when one wants it to open out.

Vladimir Petrov, a typical Slavic Heroic tenor with a solid middle and a squeezed top, certainly doesn't make much effect with Pierre, though he's clearly a perfectly competent musician. The writing is plain graceless, and I can't imagine anyone making much of it. The list of important singers is completed by two mezzos—Valentina Klepatskaya, who sings very prettily as Sonya, and Yevgenia Verbitskaya, who sings nastily but to apposite effect as Maria Ahrosimova.

The orchestral playing and choral singing are first-rate. The conducting of Melik-Pashayev is solid, but I confess to finding it also a bit tame. The weightier sections make a big impact, but some of the lighter ones (the liltting dances of the early scenes, the military flourishes of the later ones) could use more rhythmic bounce and accent, sharper pointing of dotted figures and staccatos. It is a conservative reading, at points a bit limp, and the work needs all the spark it can legitimately be given. There is also a fairly general habit of cheating sustained note values. I'm sure it's a controlled decision, not just sloppiness (the chorus turns halves into quarters so often to allow for comfortable breath that this must be regarded as a regular feature of its phrasing); but except for one or two instances where Vishnevskaya makes a telling verbal point, Prokofiev's ideas on the subject do seem worth a try.

The sound (I have heard the English pressings only) is reasonably good stereo. The orchestra comes off very well, but the massed choral sound doesn't have quite the solidity one would hope for. The soloists are very well recorded except for an unfortunate sequence in the opening scene, where Vishnevskaya sings a gorgeous solo through all sorts of extra reverberation, apparently recorded except for an unfortunate sequence in the opening scene, where Vishnevskaya sings a gorgeous solo through all sorts of extra reverberation, apparently because Natasha is at a second-story window while Andrei is down in the yard. Would people truly rather hear the echo than the soprano?
Bernstein's Wise and Masterful Resurrection

His LSO remake challenges the best competition, while the reissued Scherchen alternately fascinates and exasperates.

by Abram Chipman

In purely sensuous appeal, the Resurrection is arguably Mahler's most beautiful symphony. Given its interpretive and technical problems, it seems proper to declare at the outset that there is no "best" recording. But both recent issues—Leonard Bernstein's second complete recording (his third go at the finale) and the reissued Scherchen—have a place in the discography.

Different though they are, the Bernstein and Scherchen Resurrections have two striking similarities. First, both—especially in the opening Totenfeier (funeral service) movement—rely on a scaled-down dynamic level, in combination with close, dry miking and a slow, firm beat, conveys a sense of rapt concentration and Innigkeit not found in any of the eight or so rival editions. Second, both avoid the awkward side break at No. 21 (1972 Budapest edition) that usually interrupts the finale; both begin Side 4 at No. 29, a logical place just before the off-stage horn calls start.

The differences will be clear as we go through the symphony, movement by movement.

First Movement. Bernstein has apparently taken to heart many of the criticisms of his 1964 New York Philharmonic recording and corrected many of its flaws. Without leveling off the stark dramatic contrasts of this highly elaborate piece, he has managed a more secure and stable pulse with fewer arbitrary changes. Gone are the mannered slowdowns at bars 215 and 433, for example. There is surer control over ensemble and more apt use of dynamic swells (cf. bar 439, where the oboes' and trumpets' hairpin fortissimos are quite chilling!). Bernstein was always responsive to romantic nuance, and both renditions give full value to such details as the scherzo on the Wunderhorn song about St. Anthony's sermon to the fishes. Winds and col legno string passages are crisp and clear. However, the conductor's aversion to tempo and the first trumpet's wooden and timid solo makes the music anything but sehr getragen und gesangvoll. In this very passage, I've always thought the New York Philharmonic (even more than the Concertgebouw for Haitink on Philips 802 884/5) was right in its slower tempo and the first trumpet's wooden and timid solo.

Second Movement. In this intimate Ländler, my notes have nothing but praise for Scherchen. His players have the slightly rough, country-band sound that works nicely. There is good phrasing, careful observance of such tempo marks as nicht eilen at No. 3, and perfect balance among winds, harp, and pizzicato strings at bar 222.

In short, the nostalgic music is executed in a manner both delicate and deliberate—like Klemperer/Angel, with even more parodistic flavor. Walter's warmth is infectious and sweet, but like much else in the 1957 recording there is little played below a mezzo-forte.

And Bernstein? Where everything in the old recording is exaggerated, graceless, and ponderous, everything in the new one is firm, taut, and well played. He corrects the obvious error of ignoring the rest at No. 8, though I feel the gehalten four measures after No. 14 is still overdone. Worth mentioning apropos of the current Columbia release is the close miking of the woodwinds, which allows all sorts of detail to emerge. Delightful indeed.

Third Movement. Consistent with his penchant for gnarled irony, Scherchen is incredibly lugubrious in this scherzo on the Wunderhorn song about St. Anthony's sermon to the fishes. Winds and col legno string passages are crisp and clear. However, the conductor's aversion to sentiment ruins the trio section at No. 12, where the brisk tempo and the first trumpet's wooden and timid solo make the music anything but sehr getragen und gesangvoll. In this very passage, I've always thought the New York Philharmonic (even more than the Concertgebouw for Haitink on Philips 802 884/5) was right in its element, both for Walter and for Bernstein.

The scherzo, as a matter of fact, is the one movement of Bernstein's flawed 1964 Philharmonic recording with which I had no real complaints. As it happens, this is the only part of the remake I find less successful than its predecessor, mainly because the first trumpet hasn't enough jazz or Jewishness in his soul. In other respects, the LSO does play the movement well, certainly more idiomatic than for Solti (though such comparisons
are admittedly risky when dealing with the shifting personnel of the London orchestras).

One other big complaint, this time of nearly all the sets on the market: At bar 79, Mahler introduces a striking instance of the violin antiphony with which this symphony, like most of his scores, abounds. To hear the firsts and seconds conversing indistinguishably in the left channel makes me wonder rather bitterly why we are fussing with quad when nearly twenty years of stereo hasn’t yet gotten orchestras to reorient their seating plan to take advantage of that medium. Fortunately the violins are divided laterally by both Klemperer/Angel and Kubelik (DG 2707 043).

**Fourth Movement.** "Urlicht" is an exact transplant from Des Knaben Wunderhorn. Admirers of Wyn Morris’ superb recording of that cycle (Angel S 36380) have probably regretted the omission of "Urlicht," since his mezzo was Janet Baker, who could be expected to sing it beautifully. Well, here she is at last—singing it beautifully, as it happens, though somewhat distantly recorded. Among the singers who have recorded the song as part of the symphony, only Maureen Forrester (with Walter) is in her league. As to Bernstein’s 1964 soloist (Jennie Tourel) or Scherchen’s (Lucretia West), the less said the better.

**Finale.** When we get to the choral setting of Klopstock’s Resurrection Ode, there are three Bernstein versions to contend with. Finally the fare was part of his "Hatkvah on Mt. Scopus" disc, probably the only Mahler recording sung in Hebrew. The Israeli document (for it is a compact disc); QMA 32681, $15.98 (two Q-8 cartridges). Tape: *3M2A 32681, $15.98; Philips M2S 32681, $13.98 (two disc cartridges); QMA 32681, $15.98 (two SQ-encoded discs); QMA 32681, $15.98 (two Q-8 cartridges).

All three finales have some “Lenny" trademarks, namely the anticipated zurückhaltend before bar 547 and the tenors’ and basses’ staccato phrasing at No. 42. Between the two complete editions I find little variance in over-all conception. Bernstein organizes the vast structure well in terms of juxtaposing tempos and building climaxes.

The new set is simply better in execution. Where the New York rendition was sloppy (especially the low strings), the London one is alert and energetic. Where the production team of a decade ago took few pains about placement of the off-stage brass, the new issue is careful with both distance and antiphony (as was also true of the Decca/London crew for Solti). Where the New York set suffered from Tourel’s wobble and hoarseness, the London one is alert and energetic. Where Lee Venora was excellent—both Baker and Sheila Armstrong are here beyond cavil. So too are the Edinburgh Festival Chorus and the LSO, particularly the brass, though I can’t resist again pointing an accusing finger at the first trumpet, whose important melodic line gets submerged under the woodwind lines at bar 496. Nor is the organ nearly strong enough at the end for my taste. (I am told that Bernstein himself found it too loud and that mixed down.) Vanguard's Utah recording takes top honors in this department, by the way.

Scherchen’s finale (and the reissue at hand manages to omit any credit of the Vienna Akademiechor) is an exasperating mixture of sheer genius with either perversity or ineptness. Five measures after No. 3, for example, the oboe triplets are played very staccato, though marked simply non legato. The pacing and dynamic buildup to No. 10 are masterly, followed by a series of flagrantly wrong tempo decisions, culminating in a hectic and rhythmically confused reading of the so-called “dead march” from No. 14 on. (At a fast tempo, Abravanel is thrillingly rock-steady here, while the Klemperer/Angel takes it at a startlingly measured pace that may be “wrong” but is devastating in its impact!) Back on Westminster Gold, instances of horrendous brass playing abound, and the off-stage trumpets at No. 22 are a mess. The entry of the chorus (No. 31) is imposing indeed, but just before the fermata at No. 36, the tenors get ahead of the basses. Tempos are adroitly managed again in the penultimate pages, which come off with vast breadth and majesty, and lots of sonorous bell ringing.

The true devotee of the Resurrection will probably want several editions. Clearly one can eliminate the anonymous rechannelled performance in Everest’s Mahler box and the mono Klemperer/Vox. The Ormandy (RCA LSC 7066) is scandalously undiomatic in over-all feeling, with only Evelyn Mandac’s soprano solo a saving grace. The Kubelik, despite the ineluctable virtues noted, is disturbingly understated and unremarkably played and sung. Haitink, with more than respectable forces at his disposal, seems cool and detached in his attitude toward the work, though he sometimes attends better to minute nuances of articulation, bowing, texture, and the like.

There are so many things I like about Klemperer’s stereo recording that, despite the flaws of Angel’s disc pressings, I must still recommend it as the foremost challenger among the older full-price sets above even Solti, whose considerable virtues have been mentioned. Of the bargain-price alternatives, there remains Walter’s straightforward “rightness” and melting warmth without affectation, even if the aging recording doesn’t highlight any particular aspect of the scoring. Abravanel too is a good buy. not as massive as some (either in pacing or in weight of ensemble) but musical, completely executed, and with the richest and cleanest sonics. The Scherchen is for specialized tastes only, but it is fascinating.

Bernstein, perhaps the major contributor to the Mahler boom in this generation, has shown his capacity to grow as an artist, both in technical refinement and in more subtle interpretive wisdom. Deryck Cooke has called his 1964 Resurrection “monstrous.” Maybe so. But his current view and execution of the symphony can also be described in one word: masterly.

**Mahler: Symphony No. 2, in C minor (Resurrection).** Sheila Armstrong, soprano; Janet Baker, mezzo; Edinburgh Festival Chorus, London Symphony Orchestra, Leonard Bernstein, cond. [John McClure, prod.] Columbia M2 32681, $13.98 (two discs, automatic sequence). Tape: M2A 32681, $15.98; M2T 32681, $15.98. Quadriphone: M2A 32681, $15.98 (two SQ-encoded discs), OMA 32681, $15.98 (two 0-8 cartridges).

**Mahler: Symphony No. 2, in C minor (Resurrection).** Memi Coertse, soprano; Lucretia West, mezzo; Vienna Academy Chorus, Vienna State Opera Orchestra; Hermann Scherchen, cond. WESTMINSTER GOLD WGS 8262-2, $6.98 (two discs, automatic sequence) [from WESTMINSTER WST 206, 1968].
Verdi’s Irresistible King for a Day

Philips dusts off his second opera and turns up an unjustly neglected work of vitality and charm.

by Andrew Porter

Last year, with a group of eager young Verdi enthusiasts as companions, I embarked on a stagione lirica domestica of Verdi on record. Although the purpose was principally didactic, pleasure inevitably kept breaking in—and of all the early operas unfamiliar to most of the group, Un Giorno di regno was deemed the most delightful discovery.

Performance, of course, played a part in prompting these reactions. A dud version of Ernani produced grave undervaluation of that work on the part of those who had never been stirred by it in the theater, whereas Giorno was done in that sparkling version prepared initially by Radiotelevisione Italiana for broadcast during the 1951 Verdi year, issued subsequently on disc by Cetra, and still available (now in fake stereo) as an Everest reissue. It is an irresistibly merry and sharply characterized performance by an excellent cast, led by Lina Pagliughi, and an excellent conductor in Alfredo Simoniello.

In later life—after Aida but before Otello and Falstaff—Verdi was incensed by the publication of a remark of Rossini, to the effect that Verdi was incapable of comic opera. Giulio Ricordi, in whose magazine the offending sentence had appeared, hastened to placate the composer, assuring him that no one who knew Fra Melitone in La Forza del destino could possibly take Rossini’s opinion seriously. Yet despite Melitone (and with Falstaff far in the future), it must have seemed that Verdi, unlike his predecessors and contemporaries, had resolutely turned his back on comic opera ever since his first essay in the vein (and second opera), Un Giorno di regno.

The comedy was composed at a time of bereavement and personal distress. Its premiere, at La Scala in 1840, was a disaster—the piece was withdrawn after a single performance. Twenty years later, the memory of that hostile reception still rankled. “It is certainly a bad opera, although many others no better have been tolerated and perhaps even greeted with applause”, Verdi’s own judgment has tended to stand, and later commentators—though not later audiences—have not been nearly enthusiastic enough, I think, about the vitality, melodic force, and charm of the opera.

Unlike Julian Budden (in that indispensable companion to Verdi listening, The Operas of Verdi, published by Praeger), I do not find that “the level of invention fluctuates disconcertingly from one number to the next.” The score, as Francis Toye rightly remarked, recalls Rossini and Donizetti; but with Falstaff far in the future, it must have seemed that Verdi, unlike his predecessors and contemporaries, had resolutely turned his back on comic opera ever since his first essay in the vein (and second opera), Un Giorno di regno.

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The alternative Italian title, assigned at its second production (at the Teatro San Benedetto in Venice in 1845—and, incidentally, a success), is Il finito (or “feigned”) Stanislao. The libretto concerns a dashing young officer, Belfiore, who, to allow King Stanislaus of Poland to return incognito to his country to reclaim his throne, must pretend to be that monarch. In the course of his “day of reign,” he contrives two matches, that of Giulietta to the young Edoardo (the tenor)—which involves outwitting the two buffoons, Giulietta’s father and Edoardo’s uncle—and his own to the Marchioness of Poggio.

The libretto, by Felice Romani, had already been set by Adalbert Gyrowetz for La Scala in 1818; but in an uncommonly interesting program note with the new set, Martin Sokol reveals that the 1818 libretto was mucked about with, and spoiled, in Verdi’s version. Certainly the sparkle is mainly in the music, not in the plot.

At that date, Verdi could not have known that he was not to spend his career writing operas both comic and serious, as his predecessors had done. He showed himself
an adept in displaying all the skills and in fashioning all the traditional numbers—the introduzione of the opening chorus with inset movements for principals, the romantic arias, the buffo duets, and the ensemble finale—of the genre. It seems plain enough when we witness the performance of Ruckert songs in Carnegie Hall, Miss Norman sounded tone; the Act II aria, in particular, is delicately done, and not to deny Cossotto's energy, ability, and excellent sprightliness as the spirited young widow and find her sotto) extends this to the high D. If I prefer Pagliughi's prima donna mezzo-soprano, reference of range.

switching can be justified; there is, in fact, not much difference of range. The Marchioness runs from the A below the staff to the B above it, and Pagliughi (but not Fiorenza Cossotto) extends this to the high D. If I prefer Pagliughi's spriightliness as the spirited young widow and find her unmatched in the singing of limpid, tender strains, this is not to deny Cossotto's energy, ability, and excellent tone; the Act II aria, in particular, is delicately done, and Cossotto resists any temptation to hang down on the music or boom it.

So does Jessye Norman. Recently, doing Mahler's Rückert songs in Carnegie Hall, Miss Normau sounded like the Erda of one's dreams, tremendous and majestic. Here, she floats the line of her cavatina with soft grace and trips nimbly through some tongue-twister teasing of Edoardo in the last of the three duets that form the bulk of Act II. But all the same there is something cautious and uncharacterized about her performance.

And not only hers. If by now my preference for the older set has become obvious, that is because the new one lacks any whiff of the theater, of glance and gesture conjured up by the delivery of the music. Neither the conductor, deft and dapper though Lamberto Gardelli is, nor the cast shows much affinity for the buffo style. Neither in grace nor in spirit is Jose Carreras in the same world as Cetra's Juan Oncina. The tenor aria sounds slightly dull in the new version, bewitching in the old; Carreras moves through it in a heavy, clumsy way. When Renato Capucchi's Belfiore makes his entrance as the mock monarch, one sees him, Ingvart Wixsell sounds the notes with little of his wit or panache (and not always quite precisely). Similarly in the buffo duets, where Sesto Bruscantini and Cristiano Dalangangas are far funnier and more pointed than Wladimiro Ganzaroli and Vinzenzo Sardinero. It is partly a matter of using the words and largely a matter of reflecting the musical phrases more freely, more merrily, than Gardelli has encouraged his cast to do.

All the same, the Philips must plainly be the choice of those who insist on a good, modern, stereo recording. The sound is clean and bright, the Royal Philharmonic's playing is colorful and well balanced. And, taking six sides against Cetra/Everest's four, it is uncut (in the earlier set, several repeats are omitted).

BACH: Mass in B minor, S. 232. Gundula Janowitz, soprano; Christa Ludwig, mezzo; Peter Schreier, tenor; Robert Kerns, baritone; Karl Ridderbusch, bass; Vienna Singverein; Berlin Philharmonic Orch. Herbert von Karajan, cond. [Hans Weber, prod.] DEUTSCHE GRAMMOPHON 2709 049, $23.94 (three discs, manual sequence).

Comparisons:

Harnoncourt / Vienna Concertus; Lamberto Gardelli, cond. [Erik Smith, prod.] PHILIPS 6703 055, $23.94 (three discs, manual sequence).

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It isn't hard for a soloist to catch the listener's ear with his first entrance in this work. A dark, slashing attack will do, or a seductive tone with the right stress on the parlando rubato. It is a tribute to Perlman's interpretive wisdom that the opening phrases—indeed, much of the large first movement—is tossed off rather airily. He warms up slowly until, by the finale (often disjointed and anticlimactic in other hands), all caution is abandoned and the pyrotechnics are scarcely less than riveting. Note, for example, how the Israeli fiddler can gambol around the double-octave span of measures 157–160 with no awkward breakups in the legato and with continuous purity of rhythmic line and intonation. But don't be misled. The "beauty" here in no way violates the essentially savage passion of Bartók's inspiration.

In Previn, the young soloist has a collaborator who is of one mind with him. The reading is unerringly perceptive about the composer's intricate contouring of cumulative tension and release. And the LSO follows him with exemplary precision and sonority (e.g., the French horns, both crisp and lustrous). The balance obtained by Previn and the EMI team allows not only percussion detail, but also the spotlighted woodwind figurations with which the score abounds, to sound properly. An occasional blurred line (cf. the harp at bar 100 in the first movement) can be forgiven when such oft-obscured subtleties as the many glissandos in brass, percussion, and long strings nose through the texture with brazen effect. Previn's ability to convey the dotted rhythms in winds and strings between bars 360 and 365 of that section could almost suggest true Magyar blood in his veins. And I like too Perlman's staunch pointing of the accents even in such an otherwise precocious passage as the sixty-fourth-note leggerissimo variation of the slow movement. The one major flaw of this interpretation (and I can think of none that doesn't likewise suffer) is the lack of any attempt to meet Bartók's published timings for the outside movements—which, I suspect, require superhumanly fast speeds.

There is no question but that this new issue is in the very top echelons for the concerto. Clearly, that category must exclude the grossness in this, his fourth recording of it. Fortuitously, the previous Menuhin/Dorati, with the London Symphony, was a taut and vibrant, as well as flexible, interpretation. and I'm glad to see it back on Mercury's Golden Imports series (SRK 75002). The too relaxed but very suave and civilized Szeryng/Haitink (Philips 6500021) has an attractive coupling in the two Rhapsodies and boasts the clarity and bloom of Concertgebouw acoustics. But the Concertgebouw also sounds to fine advantage, despite 1939 sound, in the world-premiere performance of Szekely/Mengelberg (Qualiton LPX 11573), which has more than just documentary interest to recommend it.

My ultimate favorite, alongside the newcomer, is Andre Gentner's lyrical and probing statement, superbly partnered (and in a very clear recording) by Ančerl and the Czech Philharmonic (formerly available on Crossroads 22 260012.1, in a two-disc set of all the music for violin and orchestra by Bartók—currently accessible to the handy importer on Supraphon SUAST 50696). The Perlman/Previn reading, though, is as elemental as the black earth and thus will win many collectors' loyalties. A.C.

BEETHOVEN: Symphonies (9). Various orchestras, Wilhelm Furtwängler, cond. OLYMPIC 8120/7, $34.86 (seven discs, mono) (recorded 1943–52).

It has come to my attention that Everest Records have published a set of Beethoven symphonies conducted by Wilhelm Furtwängler. I wish to state publicly herewith that of the nine symphonies present in the set, Nos. 1, 3, 5, 6, and 9 come from unauthorized tape copies of performances conducted in Europe, that Nos. 4 and 7 are identical with similar performances on Vox/Turnabout, that No. 8 is identical with the Unicorn/EMI/Electrola issue—from 1948 with the Stockholm Philharmonic—and that No. 2 is a counterfeit. There does not exist a recording of Beethoven's Second Symphony with Furtwängler. He performed it too seldom, and once alleged wartime recording has been shown to be fake! To my knowledge Everest Records has not obtained permission from the owners of the original recordings, nor permission from Vox or Unicorn regarding publishing of this material. Though the issuing of pirated, stolen, or fake recordings clouds the reputation of Wilhelm Furtwängler, I am certain that music lovers will understand that these recordings do not nearly represent the true art of Wilhelm Furtwängler.

Frau Elisabeth Furtwängler's statement constitutes an admirable introduction to the latest mystery package offered by Everest's new "Olympic Series," a purported collection of all nine Beethoven symphonies conducted by Wilhelm Furtwängler. The exterior of the hingeless album box offers no clue to the provenance of these recordings, merely a stock biography of the conductor. Inside, on the labels, we find the names of orchestras—except in the case of Symphony No. 2—but nothing more about when, where, and how the recordings came about.

By means of simultaneous synchronized playback comparisons within my own collection, I have been able to verify the origin of five symphonies, and thus to amplify (and slightly correct) the information in Frau Furtwängler's statement, as follows:

No. 4: Berlin Philharmonic, June 27, 1943. Actually, only the last two movements of this recording are identical with the studio performance on Turnabout TV 4344, the first two stem from a similar (and contemporaneous) live performance with audience noise. This composite version comes from Russian Melodiya D 09083/4, and has not previously been issued in America (earlier Vox, DG, and Heliodor issues were all identical to the Turnabout).
No. 5: Berlin Philharmonic Orchestra. October 31/November 3, 1943; the same performance found on Turnabout TV 43509.
No. 8: Stockholm Concert Society Orchestra (Everest calls it the "Swedish National Orchestra"). November 13, 1948; the same performance issued in Europe on Electrola C 053 93533.

Wilhelm Furtwängler—a bogus collection of Beethoven?
Although I don't have the apposite tapes for Symphonies to the "RAI-Rome Orchestra." apparently spurious version of the Eighth America on a private disc, coupled with an mention of this performance has circulated in way. In the symphony he is, I suspect, trying too hard to be different. But to transform the fiery opening Allegro con brio into a tranquil Larghetto is not just different: it is nonsensical. Even Kleiber-celebrated for pedantic small-space tempos—got done with this movement nearly two minutes sooner than Previn. The later movements are somewhat more reason paced—and entirely too reasonable temperamentally.

Previn, incidentally, prolongs the agony by taking the repeat in the finale.

### BRAHMS: Trios for Violin, Cello, and Piano:


**Henryk Szeryng**, violin, **Pierre Fournier**, cello, **Artur Rubinstein**, piano (Max Wilcox prod.). RCA RED SEAL APL 3-0138, $20.98 (three discs, automatic sequence).

**JOSEF SZIGETI: Chamber Works.**

Joseph Szigeti, violin; various other performers. BRUNO WALTER SOCIETY WAS 714, $14 (two discs, mono; Bruno Walter Society, Box 921, Berkeley, Calif. 94701).

### BRAHMS: Piano Trios


Szymanowski's Tuba in B minor, D. 895, (found in Boult's, piano) Fantasy in C, D. 934 (with Joseph Levine, piano).

**Spontaneous** is the operative word in these exceptional performances.

The RCA set was taped in a few days of inspired interaction. Descriptions of Brahms' keyboard work depict him as the supreme objective, and Rubinstein today might be similarly described. His playing here has plenty of heart, a dominating enthusiasm, and a completely uncluttered clarity of conception. He is not an "intellectual;" but his musical intelligence is nonetheless a superior and guiding one. His projection of over-all architecture and unfaltering forward direction remind me, surprisingly, of that supreme musical scientist, Artur Schnabel. There is predictably plenty of rich weight in the playing, but there is also a finespun urgency that keeps the juicy sonorities from stagnating. These interpretations, while idiomatically Brahmsian, are far above the norm through their detachment and aristocratic reserve.

The feeling of driving momentum is firmly established in the very opening bars of Op. 8, taken a bit faster than usual—truly allegro con brio. If the opening sonata-allegro movements tend toward briskness, the scherzos are rather
slower, more militaristic than usual. It is not a matter of tempo alone, but also of Rubinstein's long-standing philosophy of quiet playing. While his very ample "stage whisper" may rob the most elfin writing of its dynamic range, there are compensating advantages: The contrapuntal felicities are robustly clarified, and the firm rhythmic delineation makes the music sound, for once, like real Brahms instead of ersatz Mendelssohn.

If I have concentrated on Rubinstein, I mean no disparagement of his two superlative colleagues. They play marvelously well, matching their illustrious elder partner phrase for phrase. Still, it is a good—especially after the violin-dominated Stern/Rose/Istomin Brahms trios (Columbia M2S 760)—to hear the balance of power rightfully restored to the piano.

I am not quite so enthusiastic about the Szeryng/Fournier/Rubinstein Schumann D minor. Theirs is, to be sure, a suave, beautiful-sounding, wholesome interpretation. But surely there is more to this tortured, twisted masterpiece. The tempos are broad, a bit too downbeat-laden, the architecture once again clear, but the result is too comfortable and neurotic—the same sort of complaint I had with the 1952 Schneider/Casals/Horszowski performance (in Columbia MSX 32768).

The over-all achievement of this set remains extraordinary, and the reproduction is bright and well-balanced. I wish, though, that RCA had pressed the album in manual rather than automatic sequence. The Brahms Op. 8 and Schumann would each have had a separate disc, a much more sensible arrangement.

Complementing the RCA package is the Bruno Walter Society's two-disc anthology of Joseph Szigeti performances from the late Forties and early Fifties (the Schubert D major Sonatina with Andor Foldes may be a little earlier—no dates are given), most of which are reissued from early Columbia mono LPs. (The Schumann trio is an air check issued here for the first time.)

All of these recordings find Szigeti past his prime technically, but his musicianship continued to grow to the end. For instance, in the Schumann D minor Trio with Horszowski and Casals disciple Rudolf von Tohel, the violin tone often has an excruciating wobble (exacerbated by the unfortunate equalization of this presumably homemade tape—with a drastic treble cut, the sound is actually pretty fair). The interpretation, however, is well-nigh ideal. Szigeti's idea of the work is one of poignant intensity, even desperation. His fervor was evidently contagious. Can this galvanic pianist be the same Horszowski who played so soberly with Schneider and Casals? Here the tempos are all faster, the conception almost unbearably overpowering. This is easily the greatest recorded performance of this problematical work since the ancient Thibaud/Casals/Cortot.

The Brahms Op. 87 Trio with Casals and Dame Myra Hess is another great interpretation, although once again an extremely controversial one. Szigeti and Casals were such individualists that smooth ensemble was automatically out of the question. (Hess tries her best to bind things together.) Szigeti's work is admittedly tremulous; Casals often goes his own way in unison passages; some rhythmic interplay is lost due to the prevailing lassitude and introspection. Indeed, High Fidelity's Paul Affelder called this a "frankly

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"Ozawa's Berlioz has scale, vividness and a vitality which, coupled with some of the BSO's most resplendent playing, made this performance compelling...the climax of the evening (was) Edith Mathis' emotion-packed, artfully shaped singing of 'D'amour l'ardente flamme' abetted by Ozawa's sensitive accompaniment!"

—Patriot Ledger, October 11, 1973
poor performance," liking the effect to that of hotel musicians casually playing dinner music. I understand what he disliked about the playing, but I must emphasize that he overreacted. This is truly inspired musicianship, and while one gets more idea of the over-all strength of the piece from Szeryng/Fournier/Rubinstein, Szijetti and friends prove even further into the music's eloquent expressive possibilities. Nobody has given the trio section of the third movement comparable breadth of vision. The Schubert D major Sonata gets a fluent, pointed treatment from Szijetti and Hess, with the violinist in relatively good tonal estate. The earlier D major Sonata is exquisitely well played violinistically and is marvelously succinct. The Fantasia-Schubert's Kreutzer Sonata and horribly difficult for both players suffers the dual liability of a mediocre pianist and a Szijetti far below his best form. The Rondo brillante, while a bit scrambled in execution, has effective moments; Bussoni accompanies sympathetically.

The restored sound is good on all of these recordings.

B


BOLET AT CARNEGIE HALL. Jorge Bolet, piano. RCA Red Seal ARL 2-0512, $31.96 (two discs).


Of this most recent harvest of Chopin's profound and diversified Op. 28 miniatures, only the Slenczynska (her second traversal, she recorded them for American Decca in the early Sixties) is competitive.

Miss Slenczynska is a big technician, and if her pianism tends toward brittle monochromaticism, she displays no more ingrained primness and tonal diversity here than I have heard previously. She benefits enormously from the music's eloquent reproduction of what appears to be a stunning instrument. Best of all, her interpretations—while highly idiosyncratic at times—have a taut, almost unbearable poignancy and intensity. The MHS disc has the additional advantage of including the two later Preludes Chopin composed. Op. 45 is a magnificent piece that originally inspired both Brahms (e.g., his first capriccio, the C sharp minor, Op. 76, No. 1) and Rachmaninoff (in a more generalized way). A flat, however, is an extraneous affair of no great consequence, though its charm is undeniable.

No Chopin performance could survive the sound inflicted on poor Miss Rosenberger. This music above all relies on lightness, color, airy separation—all distantly expunged from Delos' cramped acoustics. The receding left hand becomes clumsy and unattractive in such one-dimensional sonic, and many interpretative details that might have seemed impressively willful in decent sound emerge as parodies of their intended effect. There are soundproof mechanisms (Spring '74, No. 18, a funeral-march No. 20), and Miss Rosenberger is often a competent technician and an attractively earnest musician. But her virtuosity is not of the transcendent order to do full justice to some of these brutally taxing pieces.

Nobody could impugn Jorge Bolet's digital ability, and Carnegie Hall is certainly one of the world's great concert halls acoustically. Nevertheless, the Cuban-American virtuoso seems to have been struggling against an ugly, unresponsive piano on the occasion of this recital. Mostly taped live last February 25, Colitis limited, and forte has a vindictive, petulant impact. Some of the celebrated powerhouse preludes (Nos. 16 and 24 come to mind) are delivered in a sizzling manner. Unfortunately, though, many of the other preludes give Bolet time to "interpret," which he does in continued, vulgar fashion. On the whole, these preludes are the least effective thing on his recital program.

The Bach-Busoni Chaconne is done with impressive rhetoric (though I happen to find Mme. de Larrocha's recent London version more individualistic and more ornately modeled). The encore pieces by Moszkowski and Anton Rubinstein are very effectively negotiated.

In regard to the Schulz-Evler Blue Danube paraphrase, I must differ with Harold C. Schonberg, whose concert review RCA records with the assistance that Bolet's performance was "worthy to stand alongside the famous Lhevinne recording." Bolet plays a lot of notes, to be sure, but he commands neither Lhevinne's quasi-orchestral rhythmic simplicity nor anything like that master's tonal...
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A Ballet Masterpiece: Complete at Last

by Dale Harris

Half a dozen recordings of selections from Sylvia were listed in Schwann-I prior to this new London release, but no complete performance. There actually has never been an absolutely uncult version on disc until now. The long-deleted Mercury album by Fintouilari and the London Symphony Orchestra omitted the "pas des esclaves" and the "valse" from Act III. Richard Bonynge rightly includes every note of Delibes's score.

Sylvia is one of the masterpieces of ballet music and deserves to be taken whole. Not only does it exemplify the best qualities of nineteenth-century French music for the theater—charm of melody, rhythmic variety, and fineness of orchestration—it also has a sweep and variety that carries the evening from the sylvan opening to the grand finale. In which Diana, having been from the sylvan opening to the grand and variety that carries the evening French music for the theater—charm of the best qualities of nineteenth-century ballet music and deserves to be taken absolutely unculted prior to this new London release, but no complete performance. There actually has never been an absolutely uncult version on disc until now. The long-deleted Mercury album by Fintouilari and the London Symphony Orchestra omitted the "pas des esclaves" and the "valse" from Act III. Richard Bonynge rightly includes every note of Delibes's score.

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Tchaikovsky immediately recognized the quality of Delibes's achievement, and the older composer's influence can be felt in both Nutcracker and The Sleeping Beauty. But in his ballets Tchaikovsky avoided what has come to seem Delibes's one major theatrical error. Because of the overemphasis on female dancing at the Paris Opera in the second half of the nineteenth century, there is neither a solo for the hero nor a pas de deux for the lovers. To supply this want, Ashton used music from Delibes's share in La Source. On the present occasion, Bonynge does not, of course, go beyond the original score, but after this Sylvia I can only hope he goes on to record La Source—the sections by Minus as well as those by Delibes.

Bonynge is a superb conductor of nineteenth-century ballet music. He has an instinctive understanding of the appropriate style: color, weight, and, above all, rhythm. The New Philharmonia plays beautifully for him. The recording is first-rate. Included in the album is a very good historical essay by Ivor Guest.

Delibes: Sylvia (complete ballet).

Long known mainly for his pioneering work for solo violin, Corelli first won discographic representation for his larger-scaled concerti grossi with the Op. 6, No. 8, Christmas Concerto, so-called for its subtitle Fatto per la notte di Natale, which is primarily applicable to the last movement, a Pastorale ad libitum. But the first integral recording of Op. 6 didn't appear until February 1953, when Dean Eckertsen's complete Vox set was released in commemoration of the composer's three-hundredth birthday. That was a remarkably fine achievement for its time, and, although the number of players used now seems unduly large, the recording itself still sounds surprisingly effective (as I discovered when I unearthed my own long-treasured album for comparison with the new one).

Corelli has been consistently fortunate, since the late Max Goberman's Library of Recorded Masterpieces gave us, around 1962, three stereo versions of all twelve concertos (now available in a 1967 Odyssey reissue). And Marriner does even better, thanks in part to having made trial runs of Nos. 1 and 7 for Oiseau-Lyre, and in larger part to exploiting the most recent museological and technological advances.

This new set has been recorded (1971-72, engineer Stanley Goodall) at St. John's in Smith Square, London, by an expert string ensemble confined in four of the concertos to a single player to a part. The performing edition used is Christopher Hogwood's, based on the first printed sources of 1714 and 1715. The versatile Hogwood also plays the harpsichord and organ continuo parts (a few others are given to theorbo or bassoon) and triples as leaflet annotator. In the latter role he argues for the present relatively sparse use of ornamentation and for the freedom exercised in the choice of continuo instruments and the number of players as a part.

Much more convincingly persuasive than any verbal arguments, though, are the actual results Marriner achieves. The playing hardly could be more deftly lifting, but what makes it exceptional is its potent radiation of the personal relish everyone concerned obviously has for the music itself. Together with the sheer loveliness of the transparent recording, this infectious relish endows Corelli's only seemingly orthodox baroque idiom with much of
Both works recorded here typify a rather severe, intellectually oriented style that avoids linear continuity and instead concentrates, in varying degrees, on cellular patterns of pitch, rhythm, interval (neither harmony nor theme is particularly relevant here), and instrumentation, generally predetermined along rigid though independently established lines but varied from cell to cell with a great amount of freedom.

In Brian Fennelly's *Evanescences* (1969), for instance, electronic sounds are often skillfully overlapped and intertwined with live music (played by a violin, cellos, alto flute, and clarinet) so that the transitions from medium to medium are not immediately perceived. In this way, Fennelly creates the illusion of almost infinitely extending the live-instrument timbres, which, by the composer's own admission, were of prime concern, while at the same time greatly multiplying the electronic sound material deployed at diverse points.

The second of the three movements offers an amazingly fast, complex, and intricate stream of pointillistic tone bursts, broken here and there by a rather pastoral double trill first introduced by the live instruments and then subtly picked up by the electronic sounds. All this is greatly enhanced by a perfectly conceived stereo directionality, beautifully clear recorded sound (better for the live performances than for the taped music, as is often the case in recordings such as this) and apparently excellent performances by the soloists. (I have not seen the score.)

William Hibbard's string quartet (1971) has perhaps less immediate appeal because the austerity of its basic idiom is not relieved by the variety afforded by the electronic medium. Yet repeated hearings have led me to feel that this subdued, understated, and often rhapsodic work makes an even more profound statement than the Fennelly *Evanescences* (which likewise demands, by the way, more than one listening).

Where Fennelly stresses timbre, Hibbard concentrates on interval relationships (in particular a D-G-sharp tritone in the opening and closing sections) that tend to repeat themselves sometimes in an almost hypnotic fashion. Even if the listener does not have a strong sense of pitch, what is felt perhaps most strongly is the presence of certain simple notes and certain intervals in diverse contexts. And thus, in an almost complete reversal of traditional Western practices, Hibbard is able to conclude his quartet in a strikingly convincing manner by introducing, as the final note, a B that the listener suddenly realizes has been prepared for by its strong lack of importance throughout.

Again, judging without benefit of a score or previous acquaintance with the work, I have the impression that the Stravinski Quartet performs the Hibbard with enormous conviction and feeling, which is not easy in a work whose emotional meaning is as structured as it apparently is here. Furthermore, the string sound has been reproduced about as well as I have ever heard it.

Recordings such as these are certainly of value, affording the opportunity for multiple hearings of music that a single performance cannot begin to communicate, at least not at this point in history. I only wish companies such as CR1 could somehow offer the option of purchasing scores with the disc, as is done by at least one group. Donemus, which is to Dutch contemporary music what CR1 is to the American scene.

R.D.D.

**FENNELLY: Evanescences. HIBBARD: Quartet for Strings. Members of the Da Capo Chamber Players and electronic tape (in the Fennelly), Stravinski Quartet (in the Hibbard). [David Hancock and Lowell Cross, prod.] COMPOSERS RECORDINGS SD 322, $6.95.**

One side of this reissue is a celebrated classic: the other side represents one of the most obscure chapters of Jascha Heifetz' recording career.

The Franck sonata, of course, was a famous 78 set issued by both HMV and RCA; it was later available on an RCA LP transfer (LVT 1007), coupled with the Heifetz/Arpad Sandor version of the Richard Strauss sonata. The Bach partita, though, is (pace Rory Guy's misleading annotations) taken from the famous RCA integral set of all six Bach unaccompanied sonatas and partitas; rather it is one of two such Bach recordings Heifetz made in 1935, originally issued only in Japan. (A private disc of both works appeared a few years ago.)

The Franck performance is a beauty. It must have been a revelation when it was new, and it remains a revelation today. Heifetz and Rubinstein turn it in a remarkably lean, trim, impassioned reading, glowing and centered in sound, with none of the usual wan portamento. It is an athletic reading but never a self-indulgent one. And even in places where the text has been spliced up a bit (e.g., Heifetz adds a downward figuration at the very end of the fourth movement to complement the keyboard's upward one) a basic cogency is always present. There is still plenty of life in the reproduction, and the balance is incredibly good. In the stormy second movement, both instrumentalists fall away to their hearts' content without ever getting in each other's way.

A noble rendition.

What is one to say about Heifetz' way with Bach? Nobody makes violin playing and music-making seem as effortless as he does. Alas, he also nearly convinced me that the partita is a dull piece, not worth playing! It is astonishingly suave in tone and pure of intonation, but rhythmically so symmetrical as to be without stress or inner comprehension. Undoubtedly, my reservations were intensified by the fact that the listener suddenly realizes he has been prepared for by its strong lack of importance throughout.

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**FRANCK: Sonata for Violin and Piano. in A. BACH: Partita for Solo Violin, No. 2, in D minor, S. 1004. Jascha Heifetz, violin; Artur Rubinstein, piano (in the Franck). SERAPHIM 60230, $3.98 (mono) [from 78-rpm originals, recorded 1935 (Bach) and 1937 (Franck)].**

**IN A BACH: Partita for Solo Violin, No. 2, in D minor, S. 1004. Jascha Heifetz, violin; Artur Rubinstein, piano (in the Franck). SERAPHIM 60230, $3.98 (mono) [from 78-rpm originals, recorded 1935 (Bach) and 1937 (Franck)].**

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of the hard, scratchy "brilliance" of the RCA. Don't fail to acquire this disc. The Frnak alone is worth the modest asking price. H.G.

HIBBARD: Quartet for Strings—See Fennelly Evanesences.

MAHLER: Symphony No. 2, For a feature review, see page 71.

MOZART: Quartets for Strings. Quartetto Italiano. PHILIPS 6500 644 and 6500 645, $7.98 each.


Except for the late Adagio and Fugue, all these works are from 1772-73, by which time the precocious teenaged Mozart had toured Europe with a particularly strong Italian influence. The quartets (K. 169, 173) reveal a musical sophistication, a sense of form, a flair for drama that anticipate his greatest works for the orchestra and the theater. (Mozart is surmised to have encountered the Haydn Opp. 17 and 20 quarters before writing his six beginning with K. 168.) I particularly suggest a hearing of the K. 171 quartet, with its remarkable adagio introduction, as all the proof needed that this is not immature music. The three Salzburg divertimentos are often heard from string orchestras, but they prove just as effective in quartet form. And as these performances show, for sheer elegance alone, they are Mozartean milestones. Except for the great K. 546 Adagio and Fugue—one of the masterpieces of Mozart's Vienna years (1788)—this is not especially profound music. But there are introspective moments throughout, especially in the slow movements, and the content of the quartets is remarkably varied. In some are these works written to formula. The Quartetto Italiano continues to bring us discs that rival or surpass all previous recorded versions of this music. It is consistently remarkable how this group plays: the light, animated quality it brings to the music, its exceptional sense of rhythm and phrase, and the sheer beauty of the finely blended sound of four instruments—a beauty that does not, however, stand in the way of clarity when a contrapuntal passage makes precise definition of line advisable. R.C.M.

PENDERECKI: Kosmogonia, De natura sonoris No. 2; Anaklasis, Fluorescences. Stefania Woytowicz, soprano, Kazimierz Pustelak, tenor, Bernard Ladysz, bass (all in Kosmogonia), Warsaw National Philharmonic Chorus (in Kosmogonia) and Symphony Orchestra. Andrzej Markowski, cond. PHILIPS 6500 683, $7.98.

It is beyond me why anyone would trouble himself with mind-expanding drugs when mind-expanding music of this sort is cheaper, safer, more readily available, more easily controlled, and certainly no less exciting. I used this record as one of the tests for a room designed for reviewing quad records in a new apartment. I heard from four speakers, so that the music simply appears to encapsulate you, the effect of both Kosmogonia and De natura sonoris No. 2 is simply indescribable. This highly abstract artistic construction in tone reveals an inventive mind of the highest skill.

Kosmogonia (1970) is cosmos music, a song for the nebulae, quite unlike anything except early Penderecki and, more distantly, the work of some other European innovators. The performance is spectacular, and the recording matches it. It simply has to be heard.

The three orchestral pieces are all endlessly fascinating, but the most recent, De natura sonoris No. 2 (1971), is the strongest, both in its ideas and in its scoring. Because of this, side 1 of this Philips disc ought to get a lot of action this winter—especially, I hope, in college dormitories from Southern Cal to Cambridge. This is wild, wonderful music, filled with the sounds of our times. It is profoundly exciting, genuinely and deeply moving. You take it from there. R.C.M.

PROKOFIEV: War and Peace. For a feature review, see page 67.

PUCCINI: La Bohème.

Plácido Domingo (I) Montserrat Caballé (a) Sherrill Milnes (b) Judith Bergen (t) Ruggiero Raimondi (bs) Vicente Sardinero (s) Nicolai Markovich (t) P. C. Cadel (I) Allan Byers (b) William Mason (bs) Alan Blyth (t) Franklyn Whitly (bs)

Wandsworth School Boys’ Choir, John Aldis Choir. London Philharmonic Orchestra. Georg Solti, cond. [Richard Mohr, prod.] RCA RED SEAL ARL 2-0371, $13.98 (two

PHILIPS 6500 644 and 6500 645, $7.98

Mown': Quartets for Strings. Quartetto Italiano. PHILIPS 6500 644 and 6500 645, $7.98

Mown': Quartets for Strings. Quartetto Italiano.
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Audition the Yamaha CR-800, and all our new components, at your nearby Yamaha dealer.
If this new recording of Puccini's youthful masterpiece did nothing else, it would serve to demonstrate anew the technical mastery of Sir Georg Solti. Under his direction the London Philharmonic Orchestra excels itself. The brilliance of its playing in the first scene of Act I is exhilarating. So is the precision with which Solti handles all the diverse elements of Act II. The ebullience he gives to Schaunard's entrance in Act IV is like a burst of sunshine.

Were La Bohème simply a matter of high spirits, Solti would be ideal. Unfortunately, the opera is steeped in feeling. The sensuality of Acts I and II and of the opening of Act IV only serves to emphasize the sadness that pervades the entire work. Faced with Puccini's emotionalism, Solti is at a loss. He can give himself wholeheartedly to the irresistible Bohemians but not to the young, doomed lovers.

In this opera he shares with Herbert von Karajan (London OSA 1299) a curious inability to commit himself unstintingly to tenderness. As soon as Mimi arrives at Rodolfo's door, Solti becomes self-conscious, laboring at the sentiment and draining it of life. His response to the sudden upsurge of feeling that we hear as Mimi returns for her key ("Oh! sventato sventato!") is to hold the music in check, like a solicitous nurse trying to calm a feverish patient. He dawdles apprehensively over Mimi's farewell in Act III, and by impeding the music's natural flow he keeps the quartet at a haphazard pace. Those who love the music's natural flow will find themselves fobbed off with good taste instead.

The disadvantages of Solti's conducting are compounded by Montserrat Caballé, whose Mimi is chilling in its impersonality and unspontaneity. Caballé's uneven vocalism, the way she alternates sometimes exquisite pianissimos with big bovvy tone, is less disturbing than her calculating manners—though there is, of course, a direct relationship between her technical and interpretive limitations. Because of her inability to vocalize comfortably except at low dynamic levels, she attempts to convert everything she sings into a histrionic murmur. The result is frequently to distort the intentions of composer and librettist. Instead of opening herself up to Rodolfo in "Mi chiamano Mimi," she is withdrawn and introspective. Caballé picks her way cautiously through the music like someone trying to follow a overgrown path. At the aria's most expansive moment, "Ma quando vien la gelata—marked con molto animo—she communicates little but wariness. One waits in vain for full-hearted directness of utterance. To her "Lei m'intende?" one feels that the answer should be "Not very well."

By comparison, Placido Domingo is warm and impetuous, though, sad to say, this is not one of his most assured performances. Throughout the opera and especially in "Che gelida manina," he sounds tired, tending to substitute aspirates for legato. Nor does he really seize hold of the character in any very personal way.

As Marcello, Sherrill Milnes is unimpressively for his vocal resources than he commands these days. Ruggero Raimondi is a smooth Colline, however, and, if Judith Blegen misses the glitter of a true-born Musetta, she sings with musically and charm.

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The world of Schubert's last quartets is a domain as distinct and as moving as that of Beethoven's "late" ones—almost unremitting in emotional intensity and spiritual probing, an altogether beautiful, thought-provoking, and unsettling experience. It seems commercially a "natural" to issue a boxed set of these works by a single ensemble, and the New Hungarian fills a gap in this respect. This is, if memory serves, the first such set released here since the complete Schubert quartets/ quintets by the Endres Quartet came out in Vox 1936.

The Cleveland recording is incisive, the acoustics of the studio presumably the Andante con moto, for instance, is played with a vengeance, the score snapped out with a vengeance, the score explored for everything it has to offer. The performance is full of muscle, militancy, and drive, all projected by means of tremendous virtuosity—the sort of style so long associated with the Juilliard Quartet, whose recording of Death and the Maiden (RCA LSC 2378) has much in common with this one. The Cleveland rendition is, however, more highly evolved, more polished, better engineered, than markedly personal nor markedly slick. For example, the Guarneri (RCA LSC 1—0483) is slower and somewhat more deliberate in the first movement, emphasizing certain points of arrival in the score by means of more pronounced ritardandi; the New Hungarian makes less of such arrivals and seems intent on getting on with business. A less highly evolved concept, you might argue, but it works perfectly well within the framework the ensemble creates. Nor does this imply that the New Hungarian is short on dramatic sense: The enormous contrasts Schubert imbedded in all these scores are fully faced up to—the hair-raising five-measure crescendo from pi to ff that opens the Quartettsatz, for example, blows up like a storm over the horizon, and the striking dichotomy between lyricism and ferocity throughout the work is fully revealed.

The Cleveland Quartet might stand as the prototype of the young, modern, American-made ensemble. It is full of muscle, militancy, grit, and drive, all projected by means of a tremendous virtuosity—the sort of style so long associated with the Juilliard Quartet, whose recording of Death and the Maiden (RCA LSC 2378) has much in common with this one. The Cleveland rendition is, however, more highly evolved, better engineered, than markedly personal nor markedly slick. For example, the Guarneri (RCA LSC 1—0483) is slower and somewhat more deliberate in the first movement, emphasizing certain points of arrival in the score by means of more pronounced ritardandi; the New Hungarian makes less of such arrivals and seems intent on getting on with business. A less highly evolved concept, you might argue, but it works perfectly well within the framework the ensemble creates. Nor does this imply that the New Hungarian is short on dramatic sense: The enormous contrasts Schubert imbedded in all these scores are fully faced up to—the hair-raising five-measure crescendo from pi to ff that opens the Quartettsatz, for example, blows up like a storm over the horizon, and the striking dichotomy between lyricism and ferocity throughout the work is fully revealed.

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Mirella Freni is not, I think, really a Desdemona, despite some touching details: the voice simply hasn’t the guts for the part. It can’t expand to the necessary radiant climaxes, as Renata Tebaldi still could in Karajan’s earlier recording of the opera. Peter Glossop gives us an uneven Jago, the tone coming loose from the pitches when under stress. He has clout, which is useful, but it isn’t always exercised in the most appropriate places. The prime vocal performance of the set is José van Dam’s Lodovico, which almost compensates for the strangulated Cassio of Aldo Fioriondo.

The orchestra is, with the reservations already expressed, a thing at which to marvel: Details such as the pizzicato chord after Otello’s “Hai tu creduto Desdemona infida?” in the last act are of Toscaninian precision and clarity — if only some of Toscanini’s irresistible continuity had accompanied them! The recorded sound has less sheer impact than London’s engineers achieved in Vienna back in 1961, but is still very good, barring a miscalculation in that second-act chorus (the one with the cut), which is so distant throughout that the melodic line is often virtually inaudible. And Desdemona’s (clearly audible) repetition of the soprano tune becomes the first time we ever hear it clearly. On the other hand, the Otello-Cassio-Jago trio in Act III is imaginatively staged and balanced, clearly distinguishing the eaves-dropping Otello from the dialogue of the other two.

Where does this leave the Otello picture? Well, the incomparable Toscanini performance is still very much around (RCA LM 6107, mono), and the stereo choice, now that Serafin has disappeared from the listings, hangs between Karajan/Vienna (London OSA 1324) and Barbirolli (Angel SCL 3742) — the first flawed by that blasted ballet music and by a neutral Jago, the second decided even if often compelling. I don’t know what anybody at RCA is thinking about, but the best Otello performance I have ever heard in the theater was conducted by James Levine, with Kiri Te Kanawa as Desdemona — but perhaps we should hold our horses until 1978, when Y sketchers will presumably be able to record the title role again?

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There are people who say they prefer hearing Verdi’s Don Carlos not in the original language, but in Italian translation. I refer them to Vanni Marcoux’s recording of King Philip’s air: ask them if “Son cuer m’est ferme” does not fill the music better than “Quel cor chiuso e a me” (in the translation, “-so e a” must all be slid through on one note of a triplet); whether the simplicity of “Voici le jour” does not conjure up the bleak grayness of dawn, and Philip’s weary despair, far more effectively than the full, fat sound of “Gia spunto e il di”? And sometimes they agree. (If they don’t, a long list is ready of places where the translation spoils the sounds, the rhythms, and even the sense.)

Joseph Rouleau’s first solo recital disc strikes a timely blow for Verdi in the original. After Philip’s air comes Procida’s from Les Huguenots: Pitt, pan. Totowa: Le Caid: Vanni Marcoux and Lucien Fugère—have not successors to the comparable bass-baritones. Their successors—and were virtuosos trained in coloratura, to bright, day to noble, majestic strains and, since they suffered, quenched in the translation.

In this recital, Rouleau, a Canadian bass familiar on British and French stages, essays the repertory of the great basses chantantes: De Rivières, Obin, Levassuer, in phonograph history, Poi Plisson, Édouard de Reszke, Marcel Journet—who inspired the composers of their day to noble, majestic strains and, since they were virtuosos trained in coloratura, to bright, merry pieces as well. Their successors—and successors to the comparable bass-baritones. Vanni Marcoux and Lucien Fugère—have not been numerous.

Much of what Rouleau does is impressive. At its best, his tone has a fine, smooth “body,” rich and firm without effusiveness or spreading, and his phrases have the right long, smooth span. This is heard most consistently in the two Massenet airs, particularly in Phaëton’s powerful apostrophe to the stars in Héroïade.

But the voice is not always at its best; quite often it becomes clouded, hooded, furry, rusty, unfocused. None of the epithets is quite right, but the cluster-sense should be clear. And when that happens his performances sound undervitalized. Procida then lacks the thrust for his patriotic cabaletta, “Saint amour qui m’entraine” (omitted in the Metropolitan revival). Mephistopheles sings a lugubrious serenade; Ambroise Thomas’ Drum Major needs a swifter, more chipper bounce from note to note.

The recital is well worth hearing. In places it is first-rate, but not consistently so. John Matheson, an enthusiast for French opera and a very fine conductor of it (as can be heard on pirate tapes of the BBC’s Otello), provides an athletic, eloquent orchestral contribution. Only in the “Legende de la sauge” would I question his style—and Rouleau’s. The handling of the dramatic passages is too hectic. Fugère, the original Boniface, kept everything within the framework of the fat old monk telling this story to the little juggler.

The recording is large and comfortable. London provides texts and translations. A.P.
John Sebastian (below)—relief from chaos.

Bonnie Raitt (right)—maybe her most successful album.

Labella (opposite page below)—a shot at supergroup status.

Tom Rush—a masterpiece at last.

### The Lighter Side

Reviewed by

- Morgan Ames
- Royal S. Brown
- R.D. Darrell
- Henry Edwards
- Kenneth Furie
- Dale Harris
- Mike Jahn
- John Rockwell
- John S. Wilson

#### John Sebastian: Tarzana Kid

John Sebastian, vocals, guitars, six-string banjo, percussion, harmonica, and autoharp; Pointer Sisters, background vocals; strings arranged by David Paich. *Friends Again; Wild Wood Flower; Sportin' Life*; seven more. [Erik Jacobsen and John Sebastian, prod.] Reprise MS 2187, $6.98. Tape: $7.97.

John Sebastian still looks twenty-two, as he did eight or nine years ago when he gave us the *Lovin' Spoonful.* He was a relief from chaos then, and he's a relief now.

Sebastian does everything quietly and well, from singing to mouth-harp playing to writing songs ("Summer in the City," "Daydream," "Nashville Cats," not included). He's been at it long enough to have done it all wrong long ago, but who remembers or cares?

This album is full of terrific songs comfortably presented: "Friends Again" and "Face of Appalachia" by Sebastian, the traditional "Wild About My Lovin'" and "Wild Wood Flower." Jimmy Cliff and Guilio Bright's "Wild Wood Flower."

For all that, they aren't quite individual enough to overcome the inherent dangers of this particular style. The most serious, I would say, is loss of musical vitality. A breezy song like "You Always Love the Same Girl," designed to be propelled enthusiastically across the footlights, is reduced to miniature dimensions. Its melodic and verbal vitality sapped by a tempo too slow, a rhythm too drawly, and articulation too soulful. Broadway composers of the '20s and '30s knew their material depended on propulsive energy. Even when the songs lament the absence of love, they usually do so without self-pity, a choice example of this being "Where's That Rainbow?". But as sung here the number, after a lively verse, is far too lugubrious and solemn.

The best things on this disc are animated rhythm songs like "The Girl Friend" and "Sing." The one real bust is "Atlantic Blues," which, because it was originally recorded in England by Phyllis Dare, Travis Hudson elects to sing in a camp, mock-British accent, thus effectively ruining one of Rodgers' most appealing tunes.

But the team does deal straightforwardly with some fine, neglected numbers. "You Have Cast Your Shadow on the Sea" (from *The Boys from Syracuse*) is not one of these—it always sounds to me like a dry run for those hokey Hammerstein hits that were to come from Rodgers' pen—but anyone who doesn't know "This Is My Night to Howl!" and "Nothing but You" is in for a treat.

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#### Bonnie Raitt: Streetlights


I heard somewhere that Bonnie Raitt wasn't too crazy about her newest album because it was produced slick, to sell. If by chance that rumor is true, then I disagree strongly. What "Streetlights" is is together, professional, and gorgeous. The album before this (Warners 1953) was the opposite—loose and dull.

I have been a serious fan of Bonnie Raitt since the first song I ever heard her sing (a raucous old blues, as I recall). Even when her voice sounds tired and used up, as it does throughout this set, she is thoroughly at home within the music, a natural singer in the same sense as Gordon Lightfoot. The music seems to flow out unguarded, unembellished. The illusion of effortless singing is irresistible for me. Ms. Raitt's taste is as pleasing as her other instincts.

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**Explanation of symbols**

- EXCEPTIONAL RECORDING
- OPEN REEL
- 8-TRACK CARTRIDGE
- CASSETTE

**Recorded tape:**
- Open Reel
- 8-Track Cartridge
- Cassette
It is true that this album is a bit of a departure. Ms. Raitt is known to like the blues of Bessie Smith's era as well as that time's raw innocence.

"Streetlights" is not in that mold. Brilliantly produced by Jerry Ragovoy (who also did most of the rhythm arranging and wrote one of the best songs), the material is all contemporary, descendants of the early blues. Ms. Raitt loves so much. Perhaps that is why she sings it all with such easy presence, such ownership. Several cuts ("Ain't Nobody Home," "What Is Success") might well be played on black radio stations such as KDAY in Los Angeles if Ms. Raitt were black, but some walls never break down. Like Janis Joplin, she is easy in that musical culture.

Ms. Raitt's version of Joni Mitchell's "The Song About the Midway" (with Ms. Raitt and David Spinozza on guitars, rhythm arrangement by Ragovoy) is purely perfect. "What Is Success" by Allen Toussaint (arr. and prod.) is might well be played on black radio stations such as KDAY in Los Angeles if Ms. Raitt were black, but some walls never break down. Like Janis Joplin, she is easy in that musical culture.

Ms. Raitt's version of Joni Mitchell's "That Song About the Midway" (with Ms. Raitt and David Spinozza on guitars, rhythm arrangement by Ragovoy) is purely perfect. "What Is Success" by Allen Toussaint is a heavy trip. Yes, Beethoven will survive even worse than this; it just doesn't paint the results. Playing of such calculated putridness does not come accidentally. "In every respect the Sinfonia plays to the same rules as the London Philharmonic—the only difference is the sound." Sure, and I'm Claudio Monteverdi—the only difference is that I'm not.

After a couple of cuts (or as much of each as one is willing to endure), one realizes that these English marauders aren't "playing" the music. They're ridiculing it. Now even the least of the composers axed herein can take care of himself (or at least the music can). What disturbs me is the assumption by everyone concerned with this record that spitting on your better is a heavy trip. Yes, Beethoven will survive even worse than this; it just doesn't paint a very pretty picture of those of us who perform, sell, and—heaven forbid—buy this disgrace.

As long as there is vinyl for the likes of this, you won't convince me there's any shortage.

K.F.
As usual, Rush is best on the ballads. "Maggie" and "No Regrets" are simply breathtaking. "Black Magic Gun," a well-thought-out country ballad, captures the sense of irony that eludes most folksingers. Of the faster songs, "Claim on Me" is best.

Both Rush and producer Spector are to be congratulated. This is the sort of achievement folk-music devotees don't mind waiting a decade to hear.

M.J.

theater and film


On Dangerous Ground; Citizen Kane (with Kiri Te Kanawa and Jonathan and Darlene Edwards, voices). "Hangover Square" (with Joaquín Achúcarro, piano) by Gene Lees

In addition to the excitement, gloom, exuberance, terror, and other moods generated by the five highly diversified Herrmann scores recorded here, and in addition to the marvelously expansive, rich sonatas and stereo effect (note the opening of White Witch Doctor), I must say that a great deal of my enthusiasm for the music on this disc is inspired by Charles Gerhardt's almost unbelievably intense and exhilarating interpretations. Very simply, these are some of the most captivating performances of film music I have ever heard.

The very first band on the disc—the chase sequence from Nicholas Ray's On Dangerous Ground—is enough to leave you exhausted. In a gallop rhythm played at an incredible pace by Gerhardt and his forces and quite typical of Herrmann's style, the composer mobilizes eight horns and employs any number of novel effects, including a near quotation from the opening bars of the finale of Beethoven's Ninth. It is one of the most high-tensioned musical backgrounds he has written.

As for Herrmann's music for the Welles masterpiece, Citizen Kane, we have finally been given excerpts from this pioneering score that present a true idea of what the film feels like, which cannot be said for the flashy Welles Raises Kane suite previously recorded. It is impossible to imagine a more nearly perfect tonal accomplishment for the Atlantis atmosphere that opens Citizen Kane than the otherworldly "Xanadu" music recorded here. (And the transition to the "Snow Picture" sequence is one of the most chilling I know of; a perfect example of the way in which a score literally leads the audience emotionally.) The quick theme and variations of the "Breakfast Montage"—a rare instance in which the film was edited to follow the music rather than vice versa—is included, along with the famous Salomé aria. In the latter, of course, the recording makes no effort to duplicate the fiasco undergone by Kane's second wife in the movie; but New Zealand-born Kiri Te Kanawa, in spite of the lovely, rather reedy quality of her voice, does stream a bit, which is perhaps as it should be!

Herrmann's tonal accomplishment for R. D. Webb's Beneath the Twelve-Mile Reef (1953) simply exudes the breadth and expansiveness of the Cinemascope medium and multitrack recording, of which this eminently forgettable film was one of the first vehicles. As is his wont, he has taken one of the standard clichés of tone painting (everybody knows the depths of the sea have always sounded like a harp) and, by expanding the device beyond its natural limits (here by deploying nine harps), comes up with a resonant fluidity unlike anything else you will hear coming from behind the screen. Herrmann is one of the rare film composers who have the ability to paint with music, to create with the sense of which elements of the Herrmann sound is the instrumental color, whether in the constantly used group of woodwinds or in special effects such as the nine harps.)

Hangover Square, a rather Rachmaninoffish "Concerto Macabre" for Piano and Orchestra, constructed a masterful film about a psychotic, homicidal composer/pianist, receives a dazzling, highly dramatic performance from Joaquín Achúcarro, with Gerhardt and the National Philharmonic beautifully stressing the almost achingly tragic special prominence in the orchestral accomplishment. White Witch Doctor, composed for Henry Hathaway's 1953 film, is noted for its eerie perfection. Herrmann is noted for her eerily perfect intonation. Darlene is noted for her eerily perfect intonation. (Actually half the fun of the joke is admiring the skill with which Miss Stafford weaves in and out of the pitch.)

Mr. and Mrs. Weston acquired the rights to one of the albums—"Jonathan and Darlene Edwards in Paris"—and marketed it themselves by mail. The response was astonishing. But then, so are Jonathan and Darlene.

Now, they've acquired rights to the first of the albums—this one. I must say it is the best, which is to say the worst. Which is to say the funniest. Still one of the best gags in the world is to slip one of these records on to your roomful of guests, and watch their faces as they wonder if you've lost your marbles and actually thought that Kiri Te Kanawa was singing. Me, I'm mad about her!

Which leads us into the deeper dimension of this remarkable couple. The Weston's speak of Jonathan and Darlene in the third person; very soon you find yourself doing the same, as if these two musical disasters actually existed. And they do. Darlene Edwards lives. So does Jonathan, and like Bird, he has a host of imitators. Recently I heard a pianist in Bloomfield Hills, Michigan, who plays exactly like Jonathan. I could hardly eat my dinner for laughing.

Not only does Darlene sing both sharp and flat and screw up the time. She also has appalling taste in lyrics, and her mere selection of a tune is a virtual guarantee of its pretentious idiocy, such as: "You're deep, just like a chimpanzee. You've no enthusiasm. You're tired and uninspired. You're尖 and black and white. Equally preposterous is the second chorus lyric of "Autumn in New York," to which she does what can only be called justice in this album. It may never have occurred to Miss Stafford, but Darlene is an act of music criticism at the highest level.

The record industry being what it is, you can get this album only by mail: it's worth every funny penny of the price.

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High Fidelity Magazine

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There is a timeless quality about these recordings, made in 1960 and 1961 by two of the mainstays of the Count Basie band in its early stages in the late Thirties. When they made this set, more than twenty years had passed since they were playing together with Basie, yet their performances are as much a part of the Basie syndrome as they were originally. And listening to them now, thirty-five years after the Basie experience, they are not the least bit dated or any less filled with excitement and color.

A third element in giving these performances their vitality is the presence of Sir Charles Thompson on piano. He is not, in any sense, Basie. He has his own swinging style that does not relate at all to the Count’s spare, pointed fingerings, but he is a strong voice of the period, a part of the world of Buck and Buddy and Basie.

These are lovely, lasting records that say more about what jazz really is than almost any of the discs that have been put out in the years since these performances were recorded. It is the work of polished, disciplined, intelligent musicians who have found their own way of doing things and do it superbly. These are jazz performances in a style that has survived for over forty years without sounding and one suspects it is a style that will still be completely viable another forty years—provided there is anyone around then to listen to jazz or anything else.

BUCK CLAYTON AND BUDDY TATE:

Buck and Buddy: Buck Clayton, trumpet; Buddy Tate, tenor saxophone and clarinet; Sir Charles Thompson, piano; Gene Ramey, bass; Mousie Alexander and Gus Johnson, drums. High Life: When a Woman Loves a Man; Thou Swell; ten more. [Esmond Edwards, prod.] Prestige P 24040, $7.98 (two discs).

Stan Kenton and His Orchestra:

Plays Chicago. John Harner, Dave Zeagler, Mike Barrowman, Mike Sna- stead, and Kevin Jordan, trumpets; Dick Shearer, Lloyd Spoon, Brett Stamps, and Bill Hartman, trombones; Tommy Campbell, Rich Connit, Greg Smith, Dick Wilkie, and Roy Reynolds, saxophones; Stan Kenton, piano; Mike Wallace, tuba; Mike Ross, bass; Peter Erskine, drums; Ramon Lopez, percussion. Mother; Alone; First Child; five more. CREATIVE WORLD 1072, $6.50 (Creative World Records, Box 35216, Los Angeles, Calif. 90035).

A fascinating cycle of influences is at work on this disc. Chicago and Blood, Sweat, & Tears, despite their profoundly innovative combination of rock with jazz horns, were to a great extent offshoots of Stan Kenton’s orchestra, at
The Rectilinear 5: end of the myth of rock speakers vs. classical speakers.

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The temptation is great, therefore, to one-up that prestigious manufacturer who some time ago announced "The first accurate speaker for rock music."

But we refuse to perpetuate that mythology. It's perfectly obvious that the Rectilinear 5 reproduces classical music just as accurately as rock. We could never see how a voice coil or a magnet would know the difference between Jimi Hendrix and Gustav Mahler.

So we'd rather use this opportunity to set things straight once and for all.

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There's no such thing as a rock speaker or a classical speaker. Any more than there's a late-show TV set or a football-game TV set.

There are, however, speakers that impose a hard, sizzling treble and a huge bass on any music. And others that round off the edges and soften up the transient details of any music. That's the probable origin of the myth; but these aren't rock and classical speakers, respectively. They're inaccurate speakers.

It's true that an aggressive treble and a heavy bass are characteristic of most rock music, even when heard live. It's also true that some record producers exaggerate these qualities, sometimes to a freakish degree, in their final mix of the recorded sound.

But that doesn't mean the speaker can be allowed to add its own exaggerations on top of the others.

A loudspeaker is a conduit. Its job is to convey musical or other audio information unaltered. If the producer wants to monkey around with the natural sound that originally entered the microphones, that's his creative privilege. He'll be judged by the musical end results.

But if the speaker becomes creative, that's bad design.

By the same token, if some classical record producers prefer a warm, pillowy, edgeless string sound, that doesn't mean your speakers should impart those same qualities to cymbals, triangles or high trumpets.

(Adagios and crescendos can be as hard as rock.)

And if you like to listen at very high volume levels (after all, that's what rock is about—"out sc is Die Götterdammerung"), you still don't need a speaker that achieves high efficiency through spurious resonances. What you need is something like the Rectilinear 5.

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Of course, those who feel threatened by all this fuss about accuracy and naturalness will point out that the monitor speakers preferred by engineers and producers in recording studios are usually of the zippy, super-aggressive variety.

That's perfectly true, but the reason happens to be strictly nonmusical.

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It's easy enough to find out for yourself.

Any reputable dealer will let you hear the Rectilinear 5 side by side with a "rock" or "monitor-type" speaker. Adjust each speaker by ear to the same high volume level, making sure the amplifiers are of good quality. Then listen.

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in brief

JIMMY CLIFF: Struggling Man. ISLAND SW 9134, $6.98. Tape: IP, EA 9134, $6.98. This collection of reggae compositions is rhythmically entralling, infectious, and totally enjoyable. I urge you to listen to it.

FOUR TOPS: Anthology, MOTOWN M 8089, $9.98. Tape: M 8089, $7.97. This attempt to create a long-playing movie is melodiously clever, and offbeat. Holmes is a creative lad, and he is able to translate his creativity into striking musical terms.

RUPERT HOLMES: Widescreen. EPIC KE 32864, $5.98. Tape: EA 32864, $6.98. This all-singing, all-dancing Four Tops were a hit during their Motown days. This repackaging salutes the infectious music made by the quartet just a few years back.

CROSBY, STILLS, NASH, & YOUNG: So Far. ATLANTIC SD 18100, $6.98. Tape: L8 18100, $7.97. This recording has built this album around material from the bands, as opposed to other styles of rock. He apparently recognizes his own handiwork least in the way they've been used. Kenton apparently recognizes his own handiwork when he hears it, for with words of approval for the brand of rock played by these two groups, as opposed to other styles of rock, he has built this album around material from the books of Chicago and Blood, Sweat, & Tears.

As arranged by Bob Curnow, this is the best material the Kenton band has had in a long time. Supplemented by two originals by Curnow, it provides the band with bases for exploring its brass power, its bass depth, and its explosive young soloists that are far more varied, rewording, and less stereotyped than material written specifically for the Kenton band has often turned out to be in recent years.

The fact that the material had its roots in the Kenton image, was inspired through two rock-with-horns bands, and now has been reshaped to the actuality of Kenton makes one wonder who is doing what to whom. But when everyone comes out ahead, who's to worry about such details?

J.W.S.
One's Private Home Chapel. For centuries one of the exclusive privileges of high rank or great wealth was having a private chapel built into or adjoining one's own castle or mansion. More recently, monophonic recording gave everyone a hole-in-the-wall approach to any cathedral or concert hall, and stereo took us right into at least the rear rows of seats. Today quadraphony can miraculously expand our own listening room not only to accommodate cathedral, concert hall, or chapel music-making, but to envelop us in their spatial ambiences.

It is just such atmosphere evocation, allied with a unique example of irresistibly moving church music, that makes the first quadraphonic recording of the Fauré Requiem an ineffably more profound—yet also more private and personal—experience than this endearing work ever has been before, even when performed by better-known and more highly skilled singers and players than those led by Kazuo Yamada in Columbia MAQ 32883, Dolby-B Q-8 cartridge, $7.98. To be sure, soprano Kyoko Ito is vocally charming despite some unsteadiness, baritone Norio Ogha is nobly eloquent, and the Tokyo Metropolitan Choir and Symphony Orchestra are persuasively earnest as well as competent. There is no sense of exoticism. The enunciation is scarcely more unintelligible than it might be by most Occidental singers. And if Yamada's reading attempts no Gallic subtleties, it is consistently free from interpretative mannerisms.

Of course, old-time chapels weren't restricted to devotional functions. They permitted non-holy-day secular music-making of suitable kinds, especially by chamber ensembles or by resident or visiting organists. So it's not inappropriate to follow our private chapel audition of the Requiem with one of E. Power Biggs's Bach recitals, Vol. 6 of his "Bach Favorites" series. Here he ranges from the relatively familiar First and Fifth Trio Sonatas, S. 525 and 529, to solo-organ transcriptions of concertos by Prince Johann Ernst, S. 592, and Vivaldi, S. 593. Both Biggs's interpretive approaches and his Flentrop organ's tonal qualities are by now familiar enough to make comment superfluous, but what does warrant emphasis is the exhilarating effect of (again unexaggerated) quadraphony's enhancement of the inherent buoyancy of the breezy trio sonatas. Even the denser textures and more ceremonious nature of the two concertos are extraordinarily lightened and brightened without detracting from their distinctive grandeur (Columbia MAQ 32791, Dolby-B Q-8 cartridge, $7.98; also MT 32791, Dolby-B cassette, and MA 32791, 8-track cartridge, $7.98 each).

Mozartean Epistles from the Philippines. For many Mozarteans, the very quintessence of their idol's personality is often evoked less intimately in his supreme masterpieces than in such less ambitious but even more frankly revelatory works as his pieces d'occasion. And those of us who have a very special love for the wind-instrument concertos in particular have been delighted recently with the well-nigh wholly admirable Philips disc series starring outstanding British soloists with Neville Marriner's Academy of St. Martin-in-the-Fields ensemble. The first of these to reach tape (the four Horn Concertos with Alan Civil, Philips 7300 199, cassette) hasn't yet come to me, but I'm pleased to learn—from the new little Philips music-cassette catalogue mentioned anticipatorily here last November—that it is one of the over fifty earlier releases now made available in Dolby-B noise-reduction processes. Meanwhile, I have relished hearing (and obsessively rehearing) a pair of concertos differently coupled than in the disc series: the relatively early-lightly and weightless K. 299 Concerto for Flute and Harp with the late, incomparably poigniant K. 622 Clarinet Concerto (Philips 7300 301, Dolby-B cassette, $7.95).

A 1970 cassette taping of the little double concerto (by Zoller and Zabaleta, conducted by Mährendorfer for Deutsche Grammophon) was so deftly played and recorded that it has seemed a well-nigh definitive edition—that is until now. When Claude Monteux, Osian Ellis, and Marriner are just as, if not more, successful artistically, while the Philips engineers provide even lovelier and more gleamingly transparent recording than those led by Kazuo Yamada in Columbia MAQ 32791, Dolby-B Q-8 cartridge, $7.95. All the amplification in the world can't make Robert Page's little Philadelphia Orchestra Chorus a fit collaborator for the orchestra itself; the robust recording alone can't achieve genuine over-all sonic weight and impact; but what really drives me to Ignatian fury are the utterly tasteless disarrangements used. Even if you normally can tolerate a mélange of Elgar, Sibelius, with the Exodus theme and jingoistic pieces of various nationalities, suffer the pretentious inflations here at your own risk.

Duo-Deci-Digital Dexterity. I don't know when I've heard more effective cause-pleadings for music specifically written or transcribed for twenty fingers (two pianos or four hands on one piano) than those advanced with magisterial conviction by the Contiguglia twins, Richard and John, in their Bartok and Liszt programs: Connoisseur/Advent E 1027, and E 1027 respectively. Dolby-B cassettes, $6.95 each. The former couples a batch of fourteen Mikrokosmos miniatures (those written originally or later arranged for two pianos by the composer himself) with Bartok's fascinating 1941 two-piano rescore of his Op. 4 Orchestral Suite of 1907. The latter represents Liszt's bravura operatic fantasies at their best: on Mozart's Don Giovanni, Bellini's Norma and Sonnambula, and the Circassian March from Glinka's Russian and Ludmila. Not only admirably played, these all boast such impressively big ringing sonorities that surely only the extended frequency and dynamic ranges of Advent's deluxe music-cassette processing could capture them as triumphantly as they are captured here.
The fire started on the first floor...

...worked its way to the second floor where my Marantz 2270 was, and finally engulfed the third floor. The floors collapsed and fell into the basement where the Marantz remained buried in debris and water until March when the wrecking company came.

While the men were lifting the debris into trucks I noticed a piece of equipment I thought could be the Marantz. I asked the man to drop the load, and the receiver fell 20 feet to the ground.

Out of sheer curiosity, I brought the damaged receiver up to my apartment and after attaching a new line cord to it, I plugged it in. All the blue lights turned on. I connected a headphone and the FM played perfectly. I then tested it with my tape deck, and finally the turntable and speakers. They all played perfectly, too.

Francisco Espina
Newport, Rhode Island

Mr. Espina's Marantz 2270 receiver still meets factory specifications. We design all Marantz equipment to perform under extreme conditions for unmatched reliability year after year after year. Like the new Marantz 2275—even better than its incredible predecessor. See the complete line of Marantz receivers, components and speaker systems at your Marantz dealer. He's in the Yellow Pages.

Marantz. Almost indestructible.
This is all we want to do. But perfectly.

The engineering of high-fidelity turntables is a technical and controversial subject. But the concept of a perfect turntable is perfectly simple. Since a perfect turntable is what we at Garrard have been striving to make, we'd like to communicate this concept to you as unequivocally as possible. Then all the claims and counterclaims you hear will fall into place.

Think of it this way: A phonograph record doesn't know and doesn't care what kind of mechanism is spinning it, as long as it's spinning properly. If your hand could turn it at exactly 33 1/3 RPM, without the slightest fluctuations in speed, and keep it moving in the horizontal plane only, without the slightest jiggling or vibrations up-and-down or sideways, you could expect perfect reproduction. Similarly, a phonocartridge has no idea what's holding it in the groove, as long as it's properly held. If your other hand were holding it, correctly aligned, with the right amount of downward force and without resisting its movement across the record, it would perform faultlessly. That's really all there is to it.

The basic point is that the turntable and tonearm have exceedingly simple and purely mechanical functions, just like a chemist's analytical balance or a gyroscope. That's why turntable manufacturing is, above all, a matter of precision and integrity, with the emphasis on perfect operation rather than hifi pizzazz or features for features sake.

Of course, theoretical perfection in an actual mechanical device is an unrealizable ideal. But even though 100% is impossible, there's a big difference between 99.9% and 98%.

It's in this most fundamental sense, we feel, that Garrard turntables are in a class by themselves. For example, in the case of the Zero 100c changer and the Zero 100SB single-play automatic, tracking error has been reduced to a virtually unmeasurable quantity (in effect, zero) by the geometry of the tonearm design. Rumble, wow and flutter figures are also coming ever closer to theoretical perfection in these and other top Garrard models. (The Zero 100c and the Zero 100SB are both priced at $209.95.)

To a less spectacular degree, the lower-priced models, from $49.95 up, also come quite close to the theoretical ideal because of this emphasis on fundamentals. Remember: all we want is to make your record revolve perfectly and to position your phonocartridge perfectly. And we're almost there.


CIRCLE 22 ON READER-SERVICE CARD