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MCA (Music Corporation of America) is one of the truly big ones in record production. Quality control in every aspect of their manufacturing, plating and printing is of crucial importance. That is why they use Stanton’s Calibrated 681 Series, both in their quality control operation and in their playback for analysis of audio quality.

They even go so far as to “use the needle to test the Mother (Nickel) ... and it stands the wear”.

Throughout the recording industry, both the large and the small depend on Stanton for every aspect of the record-producing operation. Each of the 681 Calibration Series is guaranteed to meet its specifications within exacting limits and the most meaningful warranty possible ... individual calibration test results comes packed with each unit.

Whether your usage involves recording, broadcast, or home entertainment, your choice should be the choice of the professionals ... the Stanton 681.

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Illegitimate Music

I have been receiving a bit of flak over my December tribute to Leopold Stokowski. The offending statements were my swipe at musical "authenticity" and my comment that Stokowski's arranging of the music of "even the most sanctified composers" was "a prerogative that the orthodox insist belongs solely to the original creator." Implicit was my defense of the very unfashionable "Stokowskianism": that a performer has the aesthetic right—the legal right, of course, if the performance is done well (and to higher technical standards than Bach was used to). Some of these performances have resulted in the most exciting recorded versions of particular works. But I also have no inherent objection to a good performance of 200-year-old music that takes into account my having heard subsequent music, my twentieth-century ears. Bach did not hesitate to transcribe his (and others') works: a violin concerto into a piano concerto, for instance. Why should a contemporary arranger of talent be condemned for turning a Bach organ work into an orchestral one?

Some of you may have heard those of my radio shows, Concert Stage, on which Aaron Copland was the guest. During their tapings, this topic came up. Copland's marvelous recording of his Appalachian Spring ballet music was the first in its original orchestration. In the suite arrangement for full orchestra, it has become his most popular work. How would he feel if someone else had arranged the music?

Copland answered that, although legally he would have to give permission (as he did to Emerson, Lake, & Palmer to use his Fanfare for the Common Man), he thought others had the same aesthetic right he did. What if a final performance does not match his original concept? Copland, like any composer, conceives his music and does his best to write it down within the often frustrating limitations of our notation system. A performer studies the score and tries to understand the original concepts in order to perform the music that was in the composer's head. But what if a performer either misunderstands the original concepts or deliberately performs the music otherwise? Copland answered, "Sometimes it's better. ... Sometimes I say to myself, 'Why didn't I think of it that way?'"

What then did he think of a musician who would arrange a Beethoven symphony? Copland could only laugh and call such an act "daring." (Actually, very few performances of the Beethoven symphonies stick strictly to the original orchestration.)

In this month's Vivaldi discography, Paul Henry Lang takes his own swipe at the nineteenth-century piano arrangements of the great Op. 3, No. 11, Concerto Grosso. But what, I wonder, if Vivaldi had made the transcription himself? Why should the fact that a composer died before he got around to a transformation of his own music be a determining factor in that transformation's legitimacy?

A work of art has a life of its own. Its creator has no more say about how that work will flourish after he has given it birth than any parent has about how his mature child will adapt to new environments. Bach might have given Stokowski his blessing. Beethoven might have hit him with a stick. But we cannot base an aesthetic on the orneriness of any particular composer. The only criterion can be: How musical is the result?
When Phase Linear introduced the first real high-power, high-fidelity amplifier in 1971, the philosophy of audio component design was abruptly changed. Almost overnight, Phase Linear became synonymous with high-quality, high-technology, high-powered, high-fidelity. The entire audio industry was forced to take notice. Most Hi-Fi companies had not expected high power to become generally accepted as the optimum means of achieving sonic realism. Suddenly, companies found themselves spending large amounts of money in R&D, Engineering, and Marketing in a very short period of time. Who do you think picks up the tab? Contrary to what some manufacturers would like you to think, Hi-Fi companies are not philanthropic organizations. They can't absorb the cost. This rapid expenditure of money must be factored into the retail price of the component. The result? You pay a higher price. You may certainly receive the performance as advertised by these expensive imitations. But you also pay a 'penalty.'

Take a good look around the next time you visit a high-fidelity store. You'll see a lot of models on the shelf. All sizes, all shapes. All colors. All costing more than the original! The Phase Linear 730 started it. Since we started it all, we were able to advance in an orderly, cost-effective manner and improve on our original technology. There's no tab to pick-up. Do penalty to pay.

The result is the Phase Linear Series Two. The line is highlighted by the new Dual 500, rated at over 500 watts per channel, with distortion at an incredible 0.09%.

OUTPUT POWER PER CHANNEL:
- Dual 500-Series Two: 505 WATTS
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- 200-Series Two: 120 WATTS

INTERMODULATION DISTORTION (60Hz: 7kHz = 4:1):
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SIGNAL TO NOISE RATIO:
- 110dB

RESIDUAL NOISE (IHF 'A'):
- 120uV

FORCED AIR COOLING:
- YES

SUGGESTED RETAIL PRICE:
- $1349.95

*Output Power Minimum RMS per channel into 8 ohms from 20Hz-20,000Hz with no more than 0.09% Total Harmonic Distortion.
The TC-K71 front-loading cassette deck is its own best spokesman.

Switch it on, and that disciplined Sony engineering will come through loud and clear.

And no wonder. Sony’s been making tape recorders for 30 years. And today, we’re still pushing back the frontiers. The K71 shows how.

Its transport mechanism is a DC servo-controlled motor, with a frequency generator. It emits a signal which is relayed to electronic circuitry that locks in the tape movement exactly.

Our heads are ferrite-and-ferrite. And they’re Sony’s own formula—we don’t buy them, we use our heads and make them.

You’ll also find a direct-coupled head-playback amplifier. This means we’ve eliminated the middleman—the coupling capacitor—from the signal path. You get your sound direct, with minimum distortion.

Another reason the K71 is the logical choice: our logic-controlled feathertouch push-buttons actually go from fast-forward, to rewind, to play, without going through the stop position.

The K71 also speaks for itself with Dolby Noise Reduction System.™ Large, professionally calibrated VU meters. Three LED’s for peak level indication. There’s also bias and equalization switches for standard, Ferri-Chrome and Chromium Dioxide tapes. In fact, with nine possible combinations, any tape possibility of the future can be accommodated.

Along with the K71, Sony offers a complete line of cassette decks, including the K4 and K3.

So if you’re intrigued by quality that speaks for itself, get down to your Sony dealer and check these new cassette decks. Before they’re all spoken for.
Sony quality that doesn't speak at all.

But it won't be silent for long. Because the moment you record on one of our blank tapes, that quality will make itself heard.

Witness our Ferri-Chrome cassette.

Everybody knows that ferric-oxide tapes are ideal for reproducing the low frequencies. And that chromium dioxide is ideal for the high frequencies.

As usual, Sony wouldn't settle for anything but the best of both.

And as usual, Sony's engineers solved the problem. With a process that allows a coating of chromium dioxide to be applied over a coating of ferric-oxide.

Our two coats are leaving other brands of tape out in the cold. Because Ferri-Chrome boasts shockingly low distortion and startling dynamic range.

Now one reason Sony's tape engineering is so advanced, is that we're the only people in the world who make tape, tape heads, and tape recorders. We learn a lot that way. And we share it by talking to ourselves, before we talk to you.

Of course, in addition to Ferri-Chrome, Sony makes a complete line: Chrome, Hi-Fidelity, Low Noise, Elcaset and Microcassette.

Sony's been making tape for 30 years.

So when it comes to answering the tough questions about the manufacture of tape, no one fills in the blanks like Sony.

SONY AUDIO

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COMING NEXT MONTH

April may not conjure up visions of sandy wastes and neon lights for you, dear reader, but it does for us: The Winter Consumer Electronics Show was held in Las Vegas this year, and next issue our editors report What's New in Audio/Video Components for Home and Auto, gleaned from their sojourns to WCES and elsewhere. Audio-Video Editor Robert Long takes you on A Scandinavian Audio Odyssey, by motorcycle across Denmark, Norway, and Sweden in search of what makes the audio products of these countries unique. Robert C. Marsh will examine the conducting career, past, present, and prospective, of Carlo Maria Giulini, who this fall will succeed Zubin Mehta as musical director of the Los Angeles Philharmonic. In Backbeat, John Storm Roberts will look at the respectable disco of K.C. & the Sunshine Band, and Ed Dorn at 50 Miles for Studio Use. And more.

ON THE COVER

The VCRs pictured on our cover are, front, from l. to r., the JVC V-1000, Sony Betamax-2, and RCA SelectaVision, rear, the Sansyo V-Cord II, Quasar VR-1000, and Toshiba V-5210. Our thanks to Harvey Sound, Inc., New York, for its cooperation in making some of the units available.

SOLUTION TO HI FI-CROSSTIC

After a month's absence, the HiFi-Crostic resumes in this issue on page 48. The solution to HiFi-Crostic No. 33 will appear in this space next month.

ADVERTISING


THE ALTEC TANGERINE. IT GIVES YOU A NATURAL HIGH.

It may not look like much, but this simple, innocent-looking disk brings you closer to the fullest possible sound in the high frequencies. Called the "Tangerine," it’s a brand new patented radial phase plug. And we’re the only one who has it.

We build it into our high-frequency compression drivers on our Model 15 and 19 speakers. That’s why they sound more natural and as close to live sound as you can get.

Circumferential Phase Plug
Tangerine Radial Phase Plug

Until now, the old circumferential phase plugs put up obstacles to high frequencies. By forcing sound through evenly spaced slots, the plug developed its own undesirable acoustic characteristics. Because the distances between slots were even, certain high frequencies never made it through.

That’s why we came up with a better idea. Instead of circumferential slots, we have radials. The prime number of the slots and the tapered distances between them provide a clear path to high frequencies. As a result, you get super-high efficiency and greatly extended high-frequency response. A much wider band of clear and natural highs, unbroken by any artificial barrier.

After filling in the highs, we created a unique dividing network for our Models 15 and 19. It has a built-in dual-range equalizer so you can achieve variable equalization of mid and high frequencies. The combination of a dual-box design and tuned vent offers precise internal volume and enclosure tuning. The outcome is an unheard-of low frequency response: the best ratio of lower limit vs. sensitivity yet.

It’s not surprising that all these improvements in sound technology were made by Altec Lansing. The name that’s been the number one choice of professional recording studios and artists for over forty years.

For a full-line catalog and the name of your local Altec Lansing dealer, just write us. Altec Lansing International, 1515 S. Manchester Avenue, Anaheim, California 92803.
We build the others

Only JVC offers touch control and LED readout to let you control pitch perfectly.
There are seven extraordinary new JVC turntables to choose from. And priced from less than $100 to more than $1000.* Every turntable in our line offers more features for your dollar than you would expect.

Our most amazing features appear on our unlimited-class QL-10: A totally unique LED readout system that lets you change the exact, quartz-locked pitch of music up or down with a touch of the appropriate button. Certainly a remarkable innovation for serious audiophiles, musicians, broadcasters and recordists.

But every JVC turntable boasts similarly surprising features, in quartz-locked direct drive, direct drive and belt-driven models. There are core-less DC servomotors, Tracing-Hold tone-arms, error-free integrated frequency generators, detachable dust-covers (our JL-F50 even lets you operate most of its controls without disturbing the cover) and all of the other amenities we're famous for.

Of course, you'll find our wow and flutter and S/N ratio specs equal to or better than other turntables costing much more.

Once you've seen the things we build in, you'll wonder why the others leave them out.

JVC America Company, Division of US JVC Corp., 58-75 Queens Midtown Expressway, Maspeth, New York 11378
(212) 476-8300. Canada: JVC Electronics of Canada, Ltd., Scarborough, Ont.

For your nearest JVC dealer, call toll-free (outside N.Y)
800-221-7502

*Approximate retail value.
Threshold Corporation has quickly commanded a reputation for product performance that establishes new boundaries in state-of-the-art. Threshold technology is not "numbers", unrelated to aural experience, but direct solutions for those basic electronic anomalies to which the ear is most sensitive. Experience how pure an electronic component can be. Audition one of these Threshold edge-of-the-art designs.

400A CLASS A POWER AMPLIFIER: Class A operation at output levels previously considered impractical to attempt. Threshold's patented dynamic bias circuit gives the 400A power to extract maximum performance from any loudspeaker with a transparency only class A provides.

NS 10 PREAMPLIFIER: Extravagance in precision performance. Ultra high bias currents provide a "super class A" operating mode while the extreme bandwidth of the active circuits (50 mHz) and the ingenious simplicity of the gain path assure total resolution of a signal's most complex elements.

CAS 1 CASCODE POWER AMPLIFIER: (not illustrated) The first power amplifier ever to utilize cascode operation throughout. The Threshold cascode circuit, on which a patent is pending, effectively eliminates nonlinearities induced by voltage fluctuations within the active devices. Even with its modest power rating, the CAS 1 closely approximates the clarity of class A operation.

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CIRCLE 46 ON READER-SERVICE CARD
Suppose you're in an art museum and find half of every picture covered with masking tape.

Outrageous?

Sure. But you listen to music the same way. Crescendos and pianissimos are sandwiched and crowded towards the middle.

The villains are the recording and broadcast processes — tapes, records, AM/FM. They have limitations that sacrifice almost half the dynamic range — the range between quiet and loud — of all the music you hear.

But now there is a way to unlock these processes ... so your system can let you hear what you would actually hear at a live performance.
A few words about an amazing instrument

The human ear. It outperforms the best studio tape recorder by about 50%. The least sound it can hear is about 0 dB of sound pressure level (or decibels, which is a scale for measuring the loudness, or quietness, of sound). The loudest sound it wants to hear is around 130 dB. This gives it a dynamic range — the sound space if you will, between quiet and loud — of about 130 dB.

The professional studio tape recorder has a dynamic range of only about 58 dB. And there lies the problem. A professional tape recorder "hears" a lot less than you do.

The problem — compressed sound

How does a recording engineer squeeze a musical performance with a range of 100 dB into a recording range of 58 dB? He can restrict the loud and quiet passages. Or he can squeeze. Push the quiet parts up, making them louder. Then push the louds down, making them more quiet. Until everything is compressed into a 58 dB range.

Who cares?

Your ears. They know what a live performance is like. So they can tell when compression blurs the sharp edge of percussive attacks, muddles the contrasts between quiet and loud instruments, and sacrifices definition. And the more compression, the more the music sounds flat and pinched, almost two-dimensional.

The solution — decompressed sound

Reverse the process. Simply by making quiet sounds more quiet and loud sounds louder, the way they are in a live performance, your system can pack your music with vitality and excitement. Realism, if you prefer. This is called expansion. The contrast between quiet and loud becomes startling, and musical performances approach the electrifying intensity of a live concert hall. The device that achieves this is called a dynamic range expander.

A few words about another amazing instrument

The dbx 3BX dynamic range expander. It's more than a state-of-the-art expander. It is the state of the art. Other companies' expanders operate only on a portion of the dynamic range and damage true musical perspective. The 3BX, however, is a true linear expander. It uniformly expands the dynamic range of all levels and all frequencies. Key elements are a patented rms detector which accurately senses the dynamic content of your music, and a voltage controlled...
amplifier which it instructs to increase or decrease level. Moreover, the 3BX separates the frequency spectrum into three bands and expands each individually. By knowing at any given instant which bands require expansion, the 3BX achieves stunning clarity and musical depth.

It's almost like having a Hi-Fi system for each instrument

Listen to music through a 3BX. What you're hearing is actually better than the broadcast source — better than the tape, better than the record, better than the FM signal. Definition is breathtaking. You'll hear the sharp attack of a brass section. The soft brushwork of a drummer. Every nuance and texture of a symphony string section will have incredible presence. And crescendos will build with conviction and amazing depth.

You not only hear what you're getting, you see what you're getting

The more you listen to the 3BX, the more you'll appreciate it. You can set the linear expansion for anything up to 50% more dynamic range. There is a pre/post switch for taping and/or listening. But the most visually intriguing part of the 3BX is the LED indicator bank for each of three frequency bands which shows you just where and how much expansion you're enjoying. You'll see the board light up when a double forte note jumps out of the speaker. Or with the sudden shout of a rock singer. Or when you hear a string section and it feels almost thick with depth and you not only become more aware of the harmonics, but are able to pick out individual instruments. And the transition level control lets you center the program on the display, so you can see exactly what is going on.
The only component you won't have to upgrade
It will make no difference how modest, or expensive, your system is. The 3BX produces dramatic results with any system because it attacks the bane of all systems—the program source. So while you upgrade your system, the 3BX upgrades what goes into your system.

Be prepared for a rather pleasing side effect
The loss of about 20 dB of noise inherent in most records, tapes and FM broadcasts. As a matter of fact, noise approaches inaudibility.

There's more to hear
After you've heard the 3BX, listen to the dbx 118 linear dynamic range enhancer. It not only expands the dynamic range of sound, like the 3BX, for better listening, it can also compress the dynamic range of sound for background music for the home and special recordings. And if you're into copying your tapes and records onto cassette or open reel, you'll want the dbx 128. It makes tape copies that sound better than the records. It has two separate signal processing units in one. The first is a dynamic range enhancer for expansion or compression of sound sources. The second is a dbx II tape noise reduction system which allows wide dynamic range material to be recorded on tape with no audible noise added by the tape recording process.

A challenge
What we say here is nothing compared to what your ears will tell you. As a matter of fact, we'd like to offer you a friendly challenge. If you think your system is so good it can't be improved upon, drop in on your dbx dealer and listen to a similar system with a dbx expander. The difference will startle you. And that's a promise.

To receive additional information, plus your nearest dbx dealer's location, write to us at the address below, or circle reader service number 10.

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Newton, MA 02195
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Circle number 10 on the reader response card.
prised, considering the excellence of the latter's Stavisky score. This, however, does not change in the slightest the impression left by the movie. Knowing what I know of Resnais via his other films and his writings, I feel sure that he was fully aware of the effect Rozsa's music would have on Providence, even if it involved changing the "tone" of an already completed film. A Sondheim score would no doubt have produced a more "straight," better blended effect; but the temporal juxtaposition provided by Rozsa is certainly in keeping with the Resnais aesthetic, even if the director had to modify his original conception of the kind of atmosphere he wanted the film/score combination to produce. Second choices sometimes turn out to be brilliant.

Another Stars and Stripes

Regarding R. D. Darrell's November review of Sousa's Stars and Stripes ballet on London, another earlier recording of the work was made besides the one by Fiedler and the Boston Pops that Darrell cites. In the '60s, Kapp Records released a short-lived series of stereo classical recordings, including Stars and Stripes and the more appealing Western Symphony ballet, both orchestrated by Hershy Kay (Kapp KC 9036). The reverberant, though attractive, recordings featured definitive performances by the New York City Ballet Orchestra conducted by Robert Irving.

Yolan J. Laporte
San Antonio, Tex.

Kudos for Culshaw

I wish to express my thanks and admiration for John Culshaw's always interesting "Culshaw at Large" columns. I particularly appreciate those that give the inside story of a producer's job and that spotlight certain shortcomings either in televised opera productions ["The Scala Norma," June 1977] or in standard record productions ["Why Records Should Never Be Flat," October 1977]. With his immense experience in both musical and technical matters, Mr. Culshaw's words will perhaps help to bring about better musical productions.

Let me also thank him for his pioneering work in producing opera recordings. As has been said many times before about his historic Das Rheingold, he was the first to bring grand opera right into our living rooms. It was indeed a shattering experience that (aside from opening the door to Wagner for me personally) revolutionized the concept of producing opera for records, to the tremendous benefit of all collectors and listeners.

Arne Tingstram
Stocksund, Sweden

Wrong Link

Grace Rubin-Rabson states in her letter [December 1977]: "Jewish composers proliferate in numbers both absolute and relative. To name only three, Jacob Druckman, Morton Subotnick, and Ned Rorem have been honored with prizes, grants, and commissions." Although I'm honored to be grouped with
Dirty heads do to tape what a worn stylus does to records.

TEAC's Recorder Maintenance Kit has what you need to keep your tape recorder up and running.

Head Cleaner to prevent loss in frequency response and unnecessary wear.

Rubber Cleaner to prevent wow and flutter problems due to hardening, cracking and loss of roundness in rubber parts.

Stainless Polish keeps exposed metal work gleaming.


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Studio-Proven Accessories

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Knows The Nose

I obtained the Melodiya/Eurodisc pressing of Shostakovich's opera The Nose nearly a year ago and was immensely pleased, not to say overwhelmed, by its quality. At the time, I wished the recording would engender recognition via one of the major awards but thought this impossible because of the very nature of the early Shostakovich work: uncompromising, sardonic, even farcical in the extreme. And so I was very happy to see an International Record Critics Award first prize go to this masterpiece [December 1977]. This is a major credit to all involved—not just in the recording, but in the award as well.

Richard Pleak
Detroit, Mich.

Lost Pelican

I am trying to locate some information about the Pelican label, which has announced some quite interesting discs—particularly a reissue of the Lotte Lehmann Town Hall Farewell. The releases are included in the monthly Schwann Catalog, yet no dealer seems to have this label or even to know anything about it. Do you have Pelican's address so that I can write directly?

Sherman Zelinsky
Danville, Ill.

Glad to oblige. Write to Pelican Records at Box 34732, Los Angeles, Calif. 90034.

Reference Recordings

In "Those Limited-Edition Superdiscs" [December 1977], I am identified as the head of Reference Recordings. This is a San Francisco-based company owned by Tam Henderson, who is also the producer of all Reference issues. Ron Wickersham and I have been the engineers for these recordings and for the newly released Ambience recording of Sweet & Hot, a jazz group, as well.

Edward M. Long
E. M. Long Associates
Oakland, Calif.

Bouquet

I am an avid reader of your excellent publication. Your articles are interesting and easily understood by the amateur audiophile. I particularly enjoy reading your test reports on various models of comparable stereo components. Through your magazine, I have learned about the terms, symbols, and specifics of audio equipment. High Fidelity has given me the understanding necessary to choose an adequate sound system for an affordable price.

Robert S. McAra
Farmville, Va.
There are certain other instruments every serious musician should know how to play.

The implements used in every art form except music both create and preserve the art. If music isn't captured at the time it's created, it's gone forever.

But the instruments used to capture music can also be used to alter, refine and improve it.

Instruments like the A-2340SX and A-3340S 4-channel tape recorders with Simul-Sync for multitrack recording and overdubbing, as well as mastering decks like the A-6100 and A-5300SX-ZT for mixing down multichannel tapes to stereo.

Instruments like the Model 2A Mixing Console with an MB-20 Meter Bridge for control of volume, tone, blend and spatial positioning. There are also microphones for every recording need along with accessories like the PB-64 Patch Bay and cables to help organize the process.

TEAC is the leader in multitrack. Less than a decade after multitrack equipment was introduced to the professional industry, TEAC introduced it to people serious about their music. Today, thousands of musicians and recordists are getting many of the important elements of the studio experience but without the studio bill. And TEAC continues its commitment to multitrack excellence.

To find out more about the adventure of multitrack recording and to hear the quality of music that can be made on TEAC multitrack equipment, send $2 to Dept. 37 for our "Home Made With TEAC" Album. Or, if you can't wait to get your hands on the instruments every musician should know how to play, see your TEAC dealer now.

TEAC
First. Because they last.

Multitrack

*Offer good while supplies last. Void where prohibited by law.

The Bose Model 301 is the least expensive Direct/Reflecting® speaker.

It is a true bookshelf speaker that can fill an entire library with music. Its size is small. Its sound is big.

Like other Bose Direct/Reflecting® speakers, the Model 301 speakers reflect off the side walls of your room for an open, spacious sound. And, you can use the Direct Energy Control to adjust the sound pattern to suit your taste and your listening room. Either way, you get a feeling of spaciousness and life-like sound you just don’t expect from a speaker of its size and price.

If you want sound that is even more like live, there is the new Bose Model 501.

The Model 501 is a floor-standing speaker that delivers wall-shaking bass through a 10-inch, high-performance woofer. Each speaker is “asymmetrical.” One tweeter fires inward, one outward. And the left speaker works with the right to create full, rich, balanced stereo in every corner of your room.

If your listening room isn’t exactly ordinary, you can use the Direct Energy Control to adjust the high-frequency radiation of the outside tweeters. In other words, you shape the sound to fit your room.

Plus, the new Bose 501 looks as good as it sounds.

Still closer to the sound of “live” is the Bose Model 601. A high-performance speaker that behaves like one, in just about any listening environment.

Six drivers—two woofers and four tweeters—are precisely positioned so that sound comes from many directions to fill the room with sound. This configuration is essential to the exceptional spatial realism of the Model 601.

Half the drivers in the Model 601 radiate upward—above the level of sound-absorbing furniture.

In addition, there is a Symmetry Control so you can adjust the speaker’s spatial characteristics to fit your living room.

The Bose Model 601 delivers life-like music better than any other speaker. Except one.
Live.

The ultimate. The Bose 901 Series III. Designed to re-create every dimension of live-performance sound for the greatest listening pleasure imaginable.

Nine matched, full-range drivers in each enclosure deliver the clearest highs, and the most powerful lows. Sound reflected in precisely determined patterns creates a feeling of spaciousness unsurpassed by any other speaker.

The patented Acoustic Matrix™ enclosure allows the Bose 901 Series III to deliver bass that cannot be duplicated in a conventional wood enclosure. And a new, exclusive high-efficiency driver lets the Series III put out tremendous sound without a lot of expensive power.

Listen to the Bose 901. There are no speakers. Just music. Music as if you were hearing it for the first time. Live.

Of course, none of this just happens. For an explanation of the advanced technology behind Bose Direct/Reflecting® speakers, send $1.00 to Bose, Dept. L, The Mountain, Framingham, MA 01701. We'll send you a comprehensive literature package.

---

The closest you can get to live music without being there.
How to identify the world's finest tonearm.

True four-point gimbal centers and pivots tonearm mass where vertical and horizontal axes intersect. The four needle-point pivots are tempered and honed to produce microscopically smooth surfaces. Each pivot is matched to a ball-bearing race only 0.157 inches in diameter.

Vertical tonearm control sets and locks tonearm height at any point over an 8 mm range. Tonearm thus parallels record with any cartridge for precise vertical tracking without added mass of spacers.

Unique counterbalance contains two mechanical anti-resonance filters which are specially tuned to absorb parasitic resonances originating in the tonearm/cartridge system and chassis.

Straight-line tubular shape provides maximum torsional rigidity and lowest effective mass.

Tracking force is applied with a tempered, flat-wound spiral spring, centered around the vertical pivot. Stylus force remains perpendicular to the record even if the turntable is not level.

The tonearm shown is part of our higher-priced turntables. But many of its precision features are found in our lowest-priced models: four-point gimbal, straight-line design; and controls for balance, tracking force and anti-skating.
PERTH, Australia—I have just faced a situation that has many precedents in operatic history but has never happened to me before: I arrived in Perth six weeks ahead of the world premiere of a one-act opera called William Derrincourt by Roger Smalley, which was to form the first half of a double bill with Walton’s The Bear. I was to produce both of them, but the trouble was that only a few pages of Smalley’s score existed, and they were not always in sequence.

I had been invited to spend two months at the University of Western Australia, where there is a splendid theater complex. Before the operas—and in a different theater—I was to present a “visualization” of Schubert’s Winterreise based to some extent on the version I directed for BBC television some seven years ago with Peter Pears and Benjamin Britten. Schubert’s “traveler” is costumed and seen against a different projected abstract background for each song, and the piano is never in sight. I was apprehensive about how this would go down with the public—let alone the academics—in Perth, but in the event it packed the house for three successive evenings and nobody guessed where the multiprojections were coming from. (And I’m not telling, either.) Meanwhile, each day another page of Smalley’s twelve-scene opera would reluctantly appear.

William Derrincourt is based on the memoirs of an English convict who, in 1839, at the age of twenty, was sentenced to ten years’ transportation to Australia for attempting to sell a stolen waistcoat. The opera tells his story from birth to the moment when, at the end of his life, he writes his own epitaph. The book on which it is based, which Derrincourt called Old Convict Days, is extraordinary if only for its objectivity: He recounts scenes of appalling injustice and brutality and yet hardly ever makes a comment. He seems to have been the kind of man who simply accepts whatever turns up in life.

Born in 1943, Roger Smalley is an English composer and a former pupil of Stockhausen. He is at present the composer-in-residence at the university; he is a brilliant pianist and a very nice man. But he delivers late or, rather, did so on this occasion. I have to confess that what I had previously heard of his music did not greatly appeal to me, any more than does most of Stockhausen’s, so it was with some apprehension that I approached the very idea of William Derrincourt, and apprehension turned to sheer terror when I found out, in the depths of jet lag, that not much had been written. However, a few facts were known. The work was basically a one-man show, with a baritone (in this case Sam Atlas) playing the part of Der-
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CIRCLE 27 ON READER-SERVICE CARD

Derrincourt. There was to be a male chorus of twelve, some of whom had to step out from time to time to play small characters. There were two pianos, a veritable mountain of percussion, and nine instruments used not as an ensemble, but as soloists in different scenes. My problem was to try to get an overall concept of the work, because although by the time we reached the first rehearsal I had several complete scenes, they were unfortunately not in order. (I should add that the work plays continuously.)

If you think all this was bad for my nerves, just spare a thought for the cast. The baritone originally chosen to play Derrincourt walked out the day before I arrived. About ten days later the second pianist followed suit, on the grounds that he would not have time to study his (admittedly) difficult part. At the first rehearsal only seven of the twelve chorus members turned up, and the five absentees pleaded the same case: They didn't know their parts because the music had not been delivered in time.

I shall now jump to the end of this story and say that William Derrincourt turned out to be a considerable success, despite the fact that the last twelve pages of the score were thrust into my hand during the penultimate dress rehearsal, with a suggestion that we might "try them right away." I took them into a dressing room, gazed at them for twenty minutes, and then, so to speak, energized them into stage action. As usual, the audience at the first night knew nothing of all this. I wouldn't pretend that things did not go wrong here or there, but at a premiere the audience obviously doesn't know when things go marginally wrong.

The interesting question is why Smalley delivered his work so late. The answer is that his style was changing. He was trying to preserve his individuality while attempting to connect with the mainstream of music, and that is why his work communicated to an audience that I know had anticipated something musically incomprehensible. They did not expect to be moved by the piece or that a pupil of Stockhausen would end his new work on a chord of F sharp minor, and neither did I. I know all about the struggles that we had with getting the opera on the stage, but they were finally nothing compared with the struggles of a composer trying to connect with his heritage, but without pastiche. All credit to him. I do not think the world has heard the last of William Derrincourt, despite the agonies in Perth. They were worth it, because the work is worthwhile.
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The Head Amplifier. Discerning music lovers all over the world are discovering the transparent highs and extended frequency response of the moving coil phono cartridge. While other manufacturers require the addition of an expensive preamp or step-up transformer to boost the low output signal, Yamaha included a special head amplifier in the CA-2010. It's available with the flip of a switch on the front panel. And to help you get the most out of moving magnet cartridges, there's a 3-position phono impedance selector.

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The Power Amplifier. 120 watts RMS, with no more than 0.03% THD 20Hz to 20,000Hz into eight ohms.

For tighter, cleaner bass response, the amplifier can be switched to DC operation. Class A operation is switchable on the front panel, delivering 30 watts RMS, with no more than 0.005% THD 20Hz to 20,000Hz into eight ohms.

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13. Radio and “the Public Interest”  

by Gene Lees

Why is it that Jack Jones’s records sell better in England than in the United States? Why is it that Atlantic Records three years ago issued a Carmen McRae album in Japan but not here? How can Germany’s MPS label make a profit on substantial and expensive jazz albums, recorded in New York and Los Angeles, that are barely distributed here? Why is it that Japanese producers come to Los Angeles to make jazz recordings by Americans that are never even released here?

In answer to the first question, “Because England is an m.o.r. country,” said Mike Berniker, former vice president of RCA Records.

Why? “Because England has the BBC, and we have only commercial broadcasting, for all practical purposes,” he said.

No nation except the U.S. is without the equivalent of the British Broadcasting Corporation—systems financed by taxpayers’ money and therefore free (at least in theory) of commercial pressures. Perhaps because the U.S. public has always veered away from anything that might remotely resemble socialism, there never has been a concerted and effective advocacy of a nationally owned broadcasting network here. The fact is, there is no serious debate on the subject.

It is often galling to American artists traveling abroad to discover a more general and balanced interest in the full range of this country’s music than at home. Several years ago, Sveriges Radio-TV of Sweden dispatched Ole Helander, chief of jazz broadcasting, to the U.S. to do an extensive and profound series of radio documentaries on the blues. A few years later, its TV division submitted to the Golden Rose Television Festival in Montreux, Switzerland, an elegantly simple one-hour special on Hoagy Carmichael, also produced by Helander. Every summer I contribute to the Canadian Broadcasting Corporation a series of programs on American jazz. Sarah Vaughan recently played for me at her home the tape of a one-hour broadcast she had made on the music of George Gershwin for the BBC. Robert Farnon conducted a large orchestra in fine arrangements by Marty Paich; the sound quality was superb. It was a stunning program of the kind one simply does not hear on American radio—indeed, it is rare to hear Gershwin in any form on American radio.

The U.S. consumer can hardly be blamed if the splendid BBC-TV programs he sees occasionally on the Public Broadcasting System—as if glimpsing the glories of heaven through the clouds—make him yearn for a nationally owned network. But these samples from abroad are the best of their offerings. There is another side to the story: The general output of noncommercial systems is not any better than ours. Once I was stranded in London with an injured knee and watched the BBC for ten straight days. I was appalled by the banality, the mind-numbing mediocrity, of much of the programming. The same can be said of the CBC and, according to a long conversation I had recently with its own representatives, the Australian Broadcasting Commission as well.

There is a tendency in such networks toward the artsy-craftsy, the precious, the coyly special, and the merely obscure, and these inclinations are shielded from the corrective pressures of the marketplace. One sees or hears what some not necessarily the public should. In addition, taxpayer-financed broadcasting is notoriously wasteful of money. Only about a tenth of the CBC’s $2 million a month goes to the actual production of television and radio shows; the rest is spent on mechanical costs and the support of a coterie of lawyers, accountants, and comparable desk jockeys.

There are other drawbacks of government-owned networks. The most serious is their susceptibility to political manipulation. To be sure, the proprietor governments affect detachment, but the reality is otherwise.

The most flagrant examples of political manipulation, perhaps, will be found in France, and under De Gaulle the government scarcely made any bones about it. Even in England—in some ways the most politically civilized country on earth—intercession is not unknown. The BBC, its staff largely pacifist-leaning as a result of the horrors of World War I, kept Winston Churchill off the air as much as possible in the 1930s, so his warnings of German rearmament were, if not completely silenced, at least seriously muted.

Broadcasting in all countries is regulated by government to some extent. The reason is not only historical, but technical. Somebody has to specify which stations can operate on which frequencies at what power. The obvious alternative is chaos. The “air waves”—meaning the assigned broadcast frequencies—are considered public property in every country. The difference is that here most of the frequencies have been turned over to private users. They, in turn, are supposed to be subject to the dictates of “the public interest,” as it is perceived by a federal regulatory agency. Such agencies have an inherent inclination to become tools of the very industries they are supposed to control. An incestuous relationship springs up, with lawyers and managers exchanging jobs politely between the regulatory agencies and the “regulated” industries. The Federal Communications Commission, set up in 1934, has been no more immune to criticism on these grounds than other agencies, though the extent to which it is influenced by the TV networks, the radio stations, and the National Association of Broadcasters is difficult to document. Seriously understaffed, it also is physically incapable of monitoring all broadcasting, even if it were inclined to do so.

Why, one might ask, doesn’t the FCC do something about the general ghastliness of so much broadcasting, the dreary violent television shows, and the pounding, moronic Top 40 radio stations that blight the land like so much audible neon? Because the FCC’s charter specifically precludes controlling the content of broadcasting. A radio station can sink to the
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lowest level of the banal and the venal with impunity, so long as it conforms to superficial—perhaps even irrelevant—programming requirements, such as providing a certain amount of news each day.

The only power the FCC has over a station is to cancel its license, and this can be done only after serious public complaint (which is rarely made), after public hearings (which are rarely held), and after proof of the station's dereliction of some rather obscurely defined duties (which is almost impossible to establish). In defense of its requirement to broadcast in "the public interest, service, and convenience," a trashy Top 40 station will simply point to its immense audience as proof that it is doing so. In fact, the FCC has very seldom rescinded a station's license.

But surely, the music lover might argue, a demand for higher musical standards in broadcasting is just that—it does not impinge on rights of free speech, nor does it constitute political manipulation. We should not be too quick to agree. The Canadian Radio and Television Commission is not constrained, as the FCC is, from regulating broadcast content, and early in the 1970s it instituted a requirement that a specific proportion of music and other material be "Canadian." (Most countries have similar requirements.) The purpose of the policy, at least as stated, was to foster the growth of Canadian music. But some broadcasters say that it has actually lowered the quality of music. And its broader effect has been to fertilize attitudes of nationalism, separatism, and cultural insularity.

Between the two poles—government-owned broadcasting on one side and virtually unrestricted commercial broadcasting on the other—there must surely be a third way. At the moment, a solution seems to be emerging in the U.S. PBS. A publicly owned (not government-owned) system appears to be a means of striking a balance. The rising quality of PBS television is attracting a growing audience. There is no publicly owned radio network of comparable power.

In fact, not since the 1950s has a radio network of any sort had significant clout. The decline of powerful networks, which had utilized what the industry calls a "magazine format" (music and programs of all kinds on the same station), and the consequent emergence of powerful local stations paved the way to the domination of radio by country and western and rock and roll music. I will examine this music, its roots, and its broader cultural implications in the next several issues.

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I recently sold my Akai GXC-45D cassette deck and purchased a Teac A-480 primarily for the front-loading design and seemingly smoother transport. I had discovered that I could use the relatively inexpensive ferric cassettes with the Akai, nudge the high end just a bit via an equalizer, and obtain a remarkably high-level recording free from the peak distortion one might expect.

This, however, is not the case with the Teac. It performs quite well with high-end formulations but cannot begin to approach the levels the Akai could with the "cheapies." I've tried the Teac with and without both the equalizer and the Dolby circuit, with similar results. Could you give me some insight as to the reason for this? If it is a difference in bias, is it possible to have the Teac reconditioned to be more compatible with these tapes?-D. L. Elliot, Edwards, Ill.

From what you tell us, the problem does seem to be one of bias—at least in part. We assume that, once you had added a little high level treble boost at your equalizer and fed the result to your Akai at a relatively high level, you turned on its Automatic Distortion Reduction System to keep the exaggerated highs and levels from overloading the tape at high frequencies. ADRS compresses highs and therefore represents a loss (of sorts) in fidelity that is less objectionable than the distortion that would result from the attempt to put highs above the ADRS threshold onto the tape.

Since the Akai was biased for "normal" tapes (we tested it with TDK SD and got very flat response curves), your equalization was simply an attempt to make up for the response differences between "normal" and "cheapie" cassettes. The A-480, however, assumes ferric tapes of what Teac calls the "high energy" variety: presumably Maxell UDXL-1 or similar tapes that require higher bias than SD. At this bias point, the cheapies will display even more droop in top-end response and therefore, using your methods, require even more boost. If you continue to use the same, apparently high, recording levels, it's no wonder the Teac is having trouble recording clean highs.

You could have the Teac rebiased for cheaper tapes in its ferric position, but then you will get a peaky top with the hotter ferric tapes when you come to use them. A better solution might be to throw out your "corrective" measures altogether and use quality tapes at more conservative recording levels with the Teac as is. It should net you something like the same (or better) quality in sonic balance and dynamic range, and with less hassle.

I have a set of Cerwin-Vega Model 26 speakers and a set of Epicure 20+ speakers that I run from a Pioneer 2500 amp. My amp's protection circuit activates randomly, and the serviceman claims that this is due to my speakers' varying impedances. But the amp acts the same way with one speaker pair or with only headphones connected to it. Are the speakers overloading my amp, or is the problem in the amp itself?-G. A. Moreira, Fremont, Calif.

If the headphones alone trigger the protection circuit, the odds are that there is some malfunction in the amplifier. But it would be wise to check your connections to make sure you don't have an intermittent short circuit.

I own a Technics SU-8600 integrated amp and ST-8600 AM/FM tuner, a pair of Infinity 2000 II speakers, and a Sony PS-3300 turntable with a Shure V-15 Type III pickup. I had previously been using Zenith equipment (which did serve me well for many years), but I can certainly notice an improvement.

My SU-8600 is rated at 73 watts per channel (at least), which seems like a great deal of power, yet I am not getting the sonic force I expected. At full volume, I can still stand the loudness; it is certainly not root-blowing. When my old Zenith turntable is played through my equipment, I can get so much volume even at low settings (one or two notches on the volume control) that I can burn my ears off, if I don't blow the fuses in the speakers first (which I have managed to do). Can you tell me what causes this change in performance from the Zenith to the Sony? And is there a unit that I could connect between my turntable and amp to amplify the sound before it goes into the SU-8600's preamp?-Frederick A. Vrabel, Portage, Pa.

Your letter suggests that you have acquired the habit of driving your system into distortion before you will believe it is loud enough. Why you want loudness that you can't stand is a mystery to us. What you are getting from the Zenith—which apparently uses a piezoelectric phono cartridge, rather than one of the magnetic types found in better equipment—is a signal that must have your phono stage in heavy overload (or close to it) and is all wrong in frequency balance. If that's what you want, okay, but you can't duplicate that sound from quality equipment. You can get a higher level with good sound quality—if you don't overload the output of your amp and possibly damage your speakers—by connecting a line amplifier such as the Nakamichi LA-100 into the tape monitor loop (not between the turntable and phono input) of your Technics amplifier.

At present I have a pair of Altec Valencia speakers, a Crown IC-150 preamp and D-150 amp, a Thorens TD-125 Mk. II turntable with SME tone arm and Shure V-15 Type III cartridge, and a Nakamichi 700 cassette deck. I discovered I had to update. For a start, I think the IC-150 should go, as I believe it is very harsh in the output stage. I have it connected to the D-150
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via the Tape 2 output sockets, and the difference in clarity is unbelievable. Next, I think the amp is not powerful enough to drive the Altecs to their full capabilities.

I am considering biamping the system, keeping the D-150 and adding a Dynamic ST-400 and Crown VFX-2 electronic crossover and adding a pair of JBL 077 slot radiators to the Altecs. Alternatively, since I find the high frequencies of the Altecs a little screechy, I have considered replacing the drivers with JBL LE-15A crossovers plus a 375 driver with HL-93 horn/lens (very expensive) and still biamping the system. Can I get a similar sound by just adding the 077 slot radiators to the Altecs and biamping?-W. H. Hawkes, Picnic Point, Australia.

Usually in upgrading an existing system it is best to change components one at a time. This allows you to evaluate the effect of each change and decide what needs to be done next. It's also easier on the budget.

You probably can use more power, so biamping sounds like a good idea, especially since it will let you connect an add-on tweeter easily and thus ameliorate your objection to the Altecs. The wholesale replacement of drivers you are considering really amounts to a redesign of the speakers. You will probably get a better result from JBL drivers by using them in the way the manufacturer recommends, rather than in a cabinet of a different make. Your difficulty with the Crown IC-150 sounds like a malfunction that should be referred to qualified service personnel.

My problem is that my Teac A-1200U open-reel tape deck came with the tape bias set for Scotch 150, which no longer is available. I also have used Ampex and BASF tape and been quite satisfied with recordings of rock and some jazz. Now I am turning to classical music, and I find I am much more critical of the quality of the recordings I make. If I were to switch to a "hot" premium tape and have the bias of my deck adjusted accordingly, am I likely to get an appreciable gain in dynamic range? How do the makers of prerecorded tapes deal with bias settings, since their clientele must certainly cover a wide range of different possibilities?-Jon West, Elkhart, Ind.

If your machine is readjusted for one of the newer premium tapes, you should gain some dynamic range. Commercial duplication is done with the bias appropriate for the tape in use, bias affects only recording, not playback.

I am thinking of purchasing two additional speakers for my system. I already have two Heathkit 16-ohm high-efficiency bass-reflex speakers. My amplifier delivers about 44 watts per channel into 8 ohms, so I am driving them with 22 watts. The new speakers are Heathkit AS-1344 column models and are rated at 4 ohms. Do you think I can drive the two sets of speakers together without having one too loud and the other too soft or vice versa?-John Garcia, Bloomsburg, Pa.

The two sets of speakers together (in parallel) will have a net impedance of 3.2 ohms. This may overload your amp, so we wouldn't recommend it even if the efficiencies (on which we have no data) match.

We regret that, due to the volume of reader mail we get, we cannot give individual answers to all questions.
...introduces the unique R&P 3-head system cassette deck for no-compromise performance.

Hitachi's R&P system employs 3-heads for the same reasons professional reel-to-reel recorders do. The record and playback heads have separate and optimum gap widths which significantly extend both dynamic range and frequency. The R&P 3-head system also lets you monitor while recording. All three heads are contained in one unique housing to eliminate azimuth and height problems.

R&P 3-head system cassette decks are just one example of Hitachi's leadership in audio technology. Class G amplifiers, power MOS/FET amplifiers, Cinch torque turntable motors, and gathered-edge metal-cone speakers are just some of the others. There's a lot more. Ask your Hitachi dealer.
For some time now it has been generally acknowledged that encoding an audio signal via the Dolby B system prior to broadcast and decoding it at the receiver before it reaches the listener's ear can substantially reduce noise contamination of the FM signal, much as Dolby does with tape. Furthermore, since the system makes possible less drastic high-frequency transmitter pre-emphasis (25 microseconds, as opposed to the non-Dolby U.S. standard of 75 microseconds), more of the high frequencies that customarily fall victim to the automatic limiting devices FM stations use to protect against overmodulation get through to the audience. The latter is the more important point, according to inventor Ray Dolby, who speaks of "signal integrity"—that is, freedom from any intrusive element, be it random noise or deliberate processing—as the aim of his system.

But there is a catch: In order to reap these benefits, the listener must have decoding equipment. Otherwise, the frequency content of the received signal varies with level—more highs when the music is soft, less when it is loud. Something comparable can happen with the high-frequency compression used by many stations to prevent overload with the 75-microsecond pre-emphasis; one difference is that the Dolby compression (encoding) is reversible, while other processing is not.

Some stations began Dolby broadcasting apparently convinced that an encoded signal did not sound too bad even when it was heard without decoding. Dolby's potential advantage to the station is considerable; theoretically, at least, the system's 6-dB noise reduction should have the same effect on broadcast coverage (that is, the area in which a station can be received with a listenable signal-to-noise ratio) as a fourfold increase in transmitter power, an option that is far more costly. Concurrently, companies manufacturing FM receiving equipment began to include provision for Dolby's 25-microsecond de-emphasis in their products. A few went so far as to provide complete decoding facilities, either as an option or as a standard feature; manufacturers of Dolby "boxes" and tape decks also began offering the FM-decoder feature. This trend has continued and may even be on the increase. However, it places the prospective buyer of an FM tuner or receiver squarely on the horns of a dilemma. Is the extra cost of

The following FM stations gave us positive replies to our inquiry (see the accompanying text), the majority of them saying that they are broadcasting all or most of their schedules with Dolby encoding.

<table>
<thead>
<tr>
<th>Location</th>
<th>Station</th>
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<tbody>
<tr>
<td>ALABAMA</td>
<td>Birmingham</td>
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<tr>
<td>CALIFORNIA</td>
<td>Berkeley</td>
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<td></td>
<td>Los Angeles</td>
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<td></td>
<td>San Francisco</td>
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<tr>
<td>FLORIDA</td>
<td>Panama City</td>
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<td>GEORGIA</td>
<td>Atlanta</td>
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<td>IDAHO</td>
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<td>ILLINOIS</td>
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<td>Peoria</td>
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<td>INDIANA</td>
<td>Elkhart</td>
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<td>IOWA</td>
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<td>KENTUCKY</td>
<td>Owensboro</td>
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<td>MICHIGAN</td>
<td>Detroit</td>
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<td>Flint</td>
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| MINNESOTA       | Moorhead  |
|                 | Rochester |
|                 | Saint Cloud |
|                 | Hanover   |
|                 | Manchester |
|                 | Clifton   |
|                 | Fulton    |
|                 | Mount Kisco |
|                 | New York City |
|                 | Rochester |
|                 | Utica     |
| NORTH CAROLINA  | Raleigh   |
| NORTH DAKOTA    | Sioux Falls |
| OHIO            | Cincinnati |
|                 | Columbus |
|                 | Youngstown |
| OREGON          | Portland  |
| PENNSYLVANIA    | Allentown |
|                 | Pittsburgh |
|                 | Wilkes-Barre |
| TENNESSEE       | Chattanooga |
| TEXAS           | Dallas    |
|                 | Memphis   |
| VIRGINIA        | Lufkin    |
|                 | Lexington |
|                 | Newport News |
| ONTARIO, CANADA | Kitchener |
|                 | London    |
|                 | North Bay |
|                 | Ottawa    |

Some FM stations using Dolby encoding:
As you would expect from LUX, our new R-1050 tuner/amplifier “is no mere run-of-the-mill receiver.”

When LUX Audio entered the U.S. audio scene in 1975, we brought with us a worldwide reputation for excellence. But since we also brought only our separate amplifiers and tuners, relatively few audiophiles could enjoy the special qualities of LUX performance.

Now, everyone who would like a LUX tuner, preamplifier and power amplifier—on a single chassis—can have them just that way. We choose to call these new models “tuner/amplifiers,” although you probably think of them as “receivers.” What’s more important is how Hirsch-Houck Labs described the R-1350 in Stereo Review:

“Given its features, appearance and performance, this is no mere run-of-the-mill receiver... The excellent audio-distortion ratings... obviously place it among the cleanest of the currently available receivers... every aspect of the receiver’s operation and handling was as smooth and bug-free as its fine appearance would suggest.”

Typical of the circuitry and features that result in such fine performance are these: a dual-gate MOSFET front end for high sensitivity, and a special linear-phase filter array for high selectivity, low distortion and wide stereo separation. The preamplifier section has a two-stage direct-coupled amp for accurate RIAA equalization and a good phono overload capability. And the power amplifier is direct-coupled DC, in a true complementary symmetry configuration, for excellent transient and phase response.

Operating features include a six-LED peak level indicator for each channel, tape-to-tape dubbing with simultaneous listening to other program sources, turn-on time delay speaker protection plus automatic overload shutdown.

The sound of the R-1050 has been appreciated as much in England as here. For example, the British magazine HiFi at Home said: “...treble quality was light and delicate, something LUX engineers always seem to achieve... bass output seemed plentiful and strong, as is often the case with enormous, low impedance power supplies.”

If we’ve encouraged you to experience the sound of a LUX tuner/amplifier, your next step is to visit one of our carefully selected dealers. We’ll be pleased to send you the names of those in your area.

Luxman R-1050: 55 watts per channel THD 0.05%. Suggested price: $595. Other Luxman tuner/amplifiers: R-1040: 40 watts per channel THD 0.05% Suggested price: $545. R-1120: 120 watts per channel THD 0.03% Suggested price: $895. (Power ratings are minimum continuous output per channel with both channels driven simultaneously into 8 ohm loads from 20 to 20,000 Hz and no more than quoted total harmonic distortion.)

LUX Audio of America, Ltd.
160 Dupont Street, Plainview, New York 11803 • In Canada: White Electronics Development Corp., Ontario
Vladimir Zworykin, look what you started.
Vladimir Zworykin left Russia to escape the revolution. But his inventions spurred another revolution. One perhaps even more profound. Because never again would people see and experience things in quite the same way as they did before the Age of Television.

Thanks to television, an entire generation has grown up accustomed to being invited to presidential inaugurations, sightseeing on the moon, and cheering touchdowns three thousand miles away.

Until the beginning of the century, the idea of sending images through the air was just a dream. But in the Twenties, Vladimir Zworykin, a young immigrant engineer, accomplished that feat using his iconoscope and kinescope (cathode-ray) tubes.

His iconoscope picked up variations of light and dark, converting them into electrical impulses. The cathode-ray tube knitted the impulses back into a recognizable picture. Together they made a complete television system: camera and receiver.

With the development of video tape in the Fifties, television could transcend not only space, but time as well. On video tape that winning touchdown could be cheered time after time after time.

Now video tape recording is coming home. We think it just might be the start of another revolution.

**Hang on, here comes home video recording.**

How big is home video going to be? If just 1% of all the households with a television bought a home video recorder this year, that would add up to half a million recorders and well over half a billion dollars spent by the American consumer. And the figure could be much higher. A recent consumer survey by Merchandising Magazine showed 50% of respondents were considering purchasing home video recorders, compared with 15% in a similar study 6 months previous.

**At 3M, we've been ready for Home Video since 1957.**

3M has worked on the development of video tape technology from the very beginning. Our tapes are the choice of professionals by an overwhelming margin. Compared with the hardware manufacturers, there is a significant, basic difference in our outlook. We have no axe to grind as to which home video format is superior. Our business—our only business in the home video field—is tape.

So, all our technological efforts go into developing the best video tape for all video formats.

Believe it. Home video is here. It's another step on the journey started by Vladimir Zworykin over 50 years ago.

When he looked into a vacuum tube, and saw the future.

"Scotch" Home Videocassettes

The brand the pros prefer.
Dolby-compatible features justified with so few stations broadcasting encoded signals? Conversely, does the purchase of equipment that lacks such features mean that one will be out in the cold when more stations come to use Dolby encoding?

Seeking information that would make these questions easier to answer, we contacted 168 FM stations that, according to a Dolby Laboratories compilation of last year, had purchased the broadcast encoding equipment. We asked if the encoders were actually in use and, if so, for how many hours each week. We received 127 replies, with some interesting results.

First of all, 54 stations replied that they do in fact transmit Dolby-encoded signals, and most do so on a full-time or nearly full-time basis. But, surprisingly, 73 stations replied that they no longer have the equipment or are not using it. Even more surprising was the revelation that a good many of the stations in this group have tried the equipment and found the results unacceptable.

Often the reason was obvious: Not enough receivers in the coverage area are equipped with decoding facilities, and in a business as competitive as radio it makes little sense to destandardize (so to speak) the signal presented to the majority of listeners for the benefit of just a few. In some cases, stations seeking to be the loudest on the dial (also a competitive advantage) found that they could not achieve that with the Dolby equipment in the chain. One common complaint was that other signal-processing equipment used to increase the sense of loudness upset the action of the system and dulled the high frequencies excessively. (Dolby Labs pointedly recommends that no other processing be used on an encoded signal.)

Significantly, the comments we received seem to indicate that the stations disliking Dolby are more often those that broadcast rock, gospel, and other forms of music to which a wide dynamic range is relatively unimportant. The warmest praise comes from stations committed to a classical format. Other than that, the picture is mixed. So, for the present, the usefulness of Dolby decoding in a receiver seems to depend on where you live and what kind of music you listen to.

We asked Ray Dolby for his reaction to our findings. As he sees it, the problem is one of education compounded by the fact that Dolby Laboratories has a limited staff for such purposes and it has focused instead on the movie industry (where Dolby sound has made major strides in the last few years). Some stations, he admits, have little to gain from the encoding. Sometimes they are so intent on being the "loudest" on the dial that they fail to understand the system and evaluate it solely in terms of signal "punch"—which Dolby encoding itself can't deliver.

Perhaps, Dolby opines, only a few hundred FM stations (out of several thousand in this country) can and will use the equipment as it is intended: to preserve signal integrity. He hopes that, in 1978 and beyond, decreased pressures in other fields will allow his company to address itself more to FM; indeed it seems to be something of a New Year's resolution for him. At the same time, comprehensive testing of the Dolby broadcast system is going forward in several European countries—where, be it noted, high-frequency pre-emphasis is less drastic (50 microseconds) than it is here and hence creates fewer of the high-frequency overload problems that signal-processing equipment is intended to combat.

There is a strong feeling among engineers in this country and Canada that we made a mistake in adopting the 75-microsecond standard—a mistake that has been exacerbated by the advent of synthesizer rock with its heavy high-frequency modulation. Dolby broadcasting offers a possible route out of the dilemma, and one that imposes no across-the-board change in standards to dislocate an entire industry. So far, however, and in spite of tacit government approval of the system as an option, it must be accounted still experimental in the sense that no clear-cut consensus for either acceptance or rejection of it has taken shape.

### Equipment in the News

**Full-range Heil speaker here at last**

The first full-range Heil-driver loudspeaker system is now available from ESS. The Transar/ATD's woofers system consists of a vertical stack of five Lexan diaphragms connected at four points by carbon-fiber drive rods. The Transar includes a current-source bass amplifier that delivers constant power from 20 Hz to 1 kHz. Rated at 200 watts (23 dBW) into 8 ohms, the amplifier has feedback and level controls. Frequency response of the system is said to be 30 Hz to 22 kHz, ±3 dB. The standard Transar unit—including a walnut baffle and base, black reflector plates, grille, and amplifier—costs $3,250. A variety of decorator options is also offered. More on page 42
To get a superb performance, you need a precision machine.

To command a great performance, a cassette shell and cassette tape must be engineered to the most rigorous standards. Which explains why we get so finicky about details. Consider:

Precision Molded Cassette Shells—are made by continuously monitored injection molding that virtually assures a mirror-image parallel match. That's insurance against signal overlap or channel loss in record or playback from A to B sides. Further insurance: high impact styrene that resists temperature extremes and sudden stress.

An Ingenious Bubble Surface Liner Sheet—commands the tape to follow a consistent running angle with gentle, fingertip-embossed cushions. Costly lubricants forestall drag, shedding, friction, edgewear, and annoying squeal. Checks channel loss and dropouts.

Tapered, Flanged Rollers—direct the tape from the hubs and program it against any up and down movement on its path towards the heads. Stainless steel pins minimize friction and avert wow and flutter, channel loss.

Resilient Pressure Pad and Holding System—spring-mounted felt helps maintain tape contact at dead center on the head gap. Elegant interlocking pins moor the spring to the shell, and resist lateral slipping.

Five-Screw Assembly—for practically guaranteed warp-free mating of the cassette halves. Then nothing—no dust or tape snags—can come between the tape and a perfect performance.

Perfectly Circular Hubs and Double Clamp System—insures there is no deviation from circularity that could result in tape tension variation producing wow and flutter and dropouts. The clamp weds the tape to the hub with a curvature impeccably matched to the hub's perimeter.

Head Cleaning Leader Tape—knocks off foreign matter that might interfere with superior tape performance, and prepares the heads for...

TDK Cassettes—despite all we put into them, we don't ask you to put out a lot for them. Visit your TDK dealer and discover how inexpensive it is to fight dropouts, level variation, channel loss, jamming, and other problems that interfere with musical enjoyment. Our full lifetime warranty* is your assurance that our machine is the machine for your machine. TDK Electronics Corp., Garden City, N.Y. 11530. Canada: Superior Electronics Ind., Ltd.

*In the unlikely event that any TDK cassette tape ever fails to perform due to a defect in materials or workmanship, simply return it to your local dealer or to TDK for a free replacement.
Thalia joins GAS preamp family

The Great American Sound Company's new servo-loop preamplifier, dubbed Thalia, shares the technological concepts of sisters Thaedra and Thoebe. Its phono circuitry has a first-stage input-overload capability of over 1 volt throughout the audio range. Incorporated in the preamp's design are feedback tone controls, a center-detented balance control, subsonic filter, tape monitor, and mute switch. Harmonic distortion is rated at less than 0.015% from 20 Hz to 20 kHz into 600 ohms at 2 volts, transient intermodulation distortion at less than 0.01%. Thalia comes in a rack-mountable case and sells for $309; with optional handles the price is $329.

GTE Sylvania offers video tape recorder

Sylvania's Instant Replay is a VHS-format color video recorder that has its own tuner and can record independent of the receiver it feeds. Automatic recording is also possible via an electronic digital clock and timer. Unwanted material can be edited out with a pause control operated at the set or by a remote unit. Other features include a microphone jack and audio dubbing button for putting separate sound sources on the video tape. In the normal mode the two-speed deck records up to one hour of programming on a T-60 cassette, two on a T-120; the slower mode doubles recording times. The price of Sylvania Instant Replay is $995. An optional black-and-white camera is available at $319.95.

New, updated edition —

THIS BUSINESS OF MUSIC:
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Copyright Edition

By Sidney Shemel and M. William Krasilovsky
Edited by Paul Ackerman

An essential desk reference for music publishers, writers, musicians, artists and recording companies, this 612-page volume explains the legal, practical and procedural problems encountered by every practicing music person.

38 Chapters — two completely new, all substantially revised — and more than 200 pages of laws, regulations, forms, licenses, and contracts.

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Superior performance, vinyl safety, real walnut.

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discwasher, inc.
1407 N. Providence Rd. Columbia, Missouri 65201
New turntable in Sansui's line

The SR-333, Sansui's new two-speed (33 and 45 rpm) turntable, is manually operated and direct-driven by a 20-pole brushless motor. A built-in strobe and pitch controls are among its features. The S-shaped tone arm (which accepts a "universal" headshell) has a large fulcrum that, according to Sansui, provides stability and accurate tracking. The wow-and-flutter rating is pegged at less than 0.035%, signal-to-noise at better than 60 dB, and rumble at better than ~70 dB. The SR-333, which comes with a hinged dust cover, costs $190.

CIRCLE 138 ON READER-SERVICE CARD

Pistol-packin' speaker from KLH

KLH's Research Ten Division has added the Model CT-38 loudspeaker system to its line. Also called the Pistol, this two-way speaker is an 11-inch-square column, 41 inches tall, housing two 8½-inch woofers and two 2½-inch tweeters. The power-handling range of the CT-38 is said to be 10 to 75 watts (10 to 18¾ dBW). Its removable smoked glass top can be used as a table surface. Finished in wraparound black cloth and oak veneer panels, the CT-38 is priced at $250.

CIRCLE 140 ON READER-SERVICE CARD

More on page 47

Acousti-phase

At the Chicago Hi-Fi Show, the largest in the Western Hemisphere, our solid wood Acousti-phase speaker 3+ won the award for outstanding design and engineering. So let everyone else claim they make the best speakers in the world. We're confident that when you listen to Acousti-phase you too will judge us worthy of award.

Acousti-phase P.O. Box 207 Proctorsville, Vermont 05153 USA Telephone: 802 - 226-7216

CIRCLE 1 ON READER-SERVICE CARD
Is it live, or is it Memorex?

Well, Melissa?

We put Melissa Manchester to the Memorex test. Was she listening to Ella Fitzgerald singing live, or a recording on Memorex cassette tape with MRX2 OXide? It was Memorex with MRX2 OXide, but Melissa couldn't tell. It means a lot that Memorex can stump a singer, songwriter and musician like Melissa Manchester. It means a lot more that Memorex can help you capture and play back your favorite music the way it really is.

MEMOREX Recording Tape.
Is it live, or is it Memorex?
Our theory sounds fantastic.

In an industry where trial and error methods are common, the Koss Theory of loudspeaker design may seem out of place. But once you hear the unmatched Sound of Koss in the new CM 1020 loudspeaker, you'll know our computerized theory helped make the optimum 3-bandpass speaker a reality.

The Koss Theory eliminates the guesswork in speaker design by selecting parameters for the best possible performance. That's why every part of the CM 1020 works superbly both alone and as part of the whole.

The dual ports, for example, enhance the woofer's front sound waves and dampen excessive woofer movement. There are two ports instead of one because two allow for improved cabinet tuning and greater structural stability. This added stability keeps the cabinet walls from beginning to flex causing unwanted sound-waves.

The port-augmented 10-inch woofer is a special design that provides a 3 dB gain in electrical efficiency and a 3 dB down point of 31 Hz while offering maximally flat response over the low bandpass. To capture all the presence and musical energy from 300 Hz to 3.5 kHz, the CM 1020 features a performance synthesized 4 1/2-inch midrange driver. Handling the high bandpass is a 1-inch dome tweeter linked to a unique acoustic transformer. This Koss tweeter produces the highest energy output and lowest distortion of any 1-inch direct radiator tweeter on the market. Finally, to unite all these outstanding elements, Koss developed a unique, seamless crossover network.

Though we've tried to describe the superiority of the Koss CM 1020, nothing can match the thrill of a live performance. Ask your Audio Dealer for a demonstration, or write to Fred Forbes c/o the Koss Corporation for a free brochure of Koss CM loudspeakers. After experiencing the CM 1020, you'll agree: hearing is believing.
Disco power from Meteor

The Meteor Light and Sound Company’s Powermaster 75 is a stereo power amplifier—rated at 75 watts (134 dBW), 20 Hz to 20 kHz, with total harmonic distortion of 0.1% or less—for both mobile and stationary use in discotheques. Slider pots control master output levels as well as bass and treble, with a bypass switch to remove the latter two from the circuit. Two VU-style meters display average power output, and LEDs indicate peak overloads. The manufacturer specifies the frequency response at within 1 dB over the bandwidth and the signal-to-noise ratio better than 85 dB. The Powermaster 75 weighs 20 pounds and measures 10½ by 12 by 7 inches. Cost of the amplifier is $449.

A turntable from Connoisseur

New in the Connoisseur line of transcription turntables, distributed by Hervic Electronics, is the belt-driven BD/103. This three-speed (33, 45, and 78 rpm) model is powered by a DC servo-controlled motor with electronic speed adjustment. The power source is externally housed to guard against hum fields. An illuminated strobe (50 or 60 Hz) is viewed through a mirror in the platform. Rumble and hum ratings are -77 dB and -100 dB, respectively. The BD/103 turntable, less tone arm, comes with a walnut base and hinged dust cover for $199.95. A version with the SAU-3 arm also is available: the BD/103A, $249.95.

B&W presents the DM-7

B&W’s DM-7 loudspeaker, distributed by Anglo-American Audio, Ltd., uses two active drivers fed by a third-order Butterworth crossover network. The spheroidal tweeter of the DM-7 is mounted on top of the enclosure, and the bass/midrange transducer is acoustically coupled to an ultra-low-frequency radiator. A control to tailor the energy response to room acoustics and program material also is included. Rated frequency response is ±2 dB from 30 Hz to 25 kHz; recommended power range is 50 to 200 watts (17 to 23 dBW) into 8 ohms. Typical total harmonic distortion is said to be less than 1% from 40 Hz to 20 kHz. The price of the DM-7 speaker is $495.

Rack-It puts it on the shelf

Rack-It Industries is marketing two types of equipment racks and a tape console. Both of the racks measure 45 inches in height and 17 inches deep. One rack has three adjustable shelves and can accept equipment up to 24 inches wide; the other is 19 inches wide and has twenty-two spaces for standard-size rack-mountable equipment. The tape console, which has a shelf for tape and accessories, can hold any deck up to 19 inches wide and 21 inches long. All three products are finished in walnut Formica, fitted on ball casters, and cost $180 each.

All you have to do is WhistleSwitch

WhistleSwitch from Universal Controls, a cordless remote control system, is designed specifically for on/off operation of stereo components and television sets but will also function with lamps and similar household appliances. The remote control activates a solid-state receiver (plugged into any wall outlet) by emitting a barely audible whistle; the appliance to be controlled then is plugged into the receiver. The device is said to work at distances up to 50 feet and is available in a beige or cocoa case for $24.95.

For more reports on equipment and accessories, see “Input Output.”
HiFi-Crostic No. 33
by William Petersen

To solve these puzzles—and they aren't as tough as they first seem—supply as many of the Output words as you can in the numbered dashes following the Input. Unless otherwise specified in the Input, the Output consists of one English word. "Comp." means compound, or hyphenated, word.

Transfer each letter to the square in the diagram that bears the corresponding number. After only a few correct guesses you should begin to see words and phrases emerging in the diagram, which when filled in will contain a quotation related to music, recordings, or audio.

The words in the quotation are separated by darkened squares and do not necessarily end at the end of a row. Try to guess at these words and transfer each newly decoded letter back to its appropriate dash in the Output. This will supply you with further cues.

A final clue: The source of the quotation—the author and his work—will be spelled out by the first letters in Output, reading down.

The answer to HiFi-Crostic No. 33 will appear in next month's Issue of High Fidelity.

**INPUT**
A. Conductor Kenneth, recorded 1872 Overture with London Symphony
B. Flood or sport
C. Austrian composer (1883-1945) Five Movements for string quartet (full name)
D. Film-music composer: Captain from Castile, Diary of Anne Frank
E. 1/746 horsepower
F. In ballet, variation of arabesque
G. Citrus fruit
H. Nonflying Air Force officer (full name)
I. Declining, retreating
J. Godmark's Wedding
K. Rohstropovich
L. Abravanel's orchestra (2 wds.)
M. German-American composer (1902-72). Unnamed Lands (full name)
N. See Word V (2 wds.)

**OUTPUT**

<table>
<thead>
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<tr>
<td>B</td>
<td>35 8 134 186 158 145 53 171</td>
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<tr>
<td>C</td>
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<td>J</td>
<td>121 151 18 167 41 118</td>
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<tr>
<td>K</td>
<td>11 40 149 93 31 50 130 61</td>
</tr>
<tr>
<td>L</td>
<td>112 39 181 19 69 127 29 76</td>
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<tr>
<td>M</td>
<td>1 131 179 97 109 165 84 37</td>
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<tr>
<td>N</td>
<td>124 159 75 36 86 63 7</td>
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**INPUT**
O. Davenport, ragtime and jazz pianist
P. Horn player: Brandenburg No. 1 on Angel (full name)
Q. Rules
R. Woodwind quartet recorded on Brewster (2 wds.)
S. Elastic, flexible tempo
T. Japanese composer (b 1921): Birth of a Human
U. Balterman's skirt
V. With Word N: Handel oratorio
W. Tchaikovsky ballet (Fr comp.)
X. Sato Kayama in Broadway's Pacific Overtures
Y. Dmitri Dmitrovich
Z. Civilian dress

**OUTPUT**

<table>
<thead>
<tr>
<th>INPUT</th>
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<tbody>
<tr>
<td>O</td>
<td>66 164 153 15 87 185</td>
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<tr>
<td>P</td>
<td>78 9 192 64 21 128 101 157</td>
</tr>
<tr>
<td>Q</td>
<td>174 140 111 30 91 184</td>
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<tr>
<td>R</td>
<td>113 16 158 42</td>
</tr>
<tr>
<td>S</td>
<td>188 129 58 47 138 95 193 72</td>
</tr>
<tr>
<td>T</td>
<td>36 161 108 3 178 81 28</td>
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<tr>
<td>U</td>
<td>5 82 173 48 144 166</td>
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<tr>
<td>V</td>
<td>46 89 104 114 187</td>
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<tr>
<td>W</td>
<td>98 27 163 175</td>
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<tr>
<td>X</td>
<td>169 115 83 52 120 73</td>
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<tr>
<td>Y</td>
<td>33 6 133 45 191 170 148 183</td>
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<tr>
<td>Z</td>
<td>68 20 126 116 90</td>
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<table>
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<tr>
<td>1</td>
<td>117 146 85 65</td>
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<tr>
<td>2</td>
<td>173 26 85 105 56 44 155 136</td>
</tr>
<tr>
<td>3</td>
<td>92 32 119 189</td>
</tr>
<tr>
<td>4</td>
<td>110 57 23 177 132</td>
</tr>
</tbody>
</table>
A dollar says Sound Guard® keeps your Bach, Blues and Boogie perfectly preserved.

Audio experts have called our Record Preservation Kit “the best thing for records since vinyl.” Now Sound Guard will pay you $1 to prove the strength of their judgement. Simply purchase the Preservation Kit from your audio or record dealer and send us the coupon below with proof of purchase. We’ll send you your dollar. Independent tests prove records played 100 times show the same absence of surface noise and distortion, when regularly treated with Sound Guard, as a new record played once in “mint condition.” Sound Guard protection lasts. However, this offer ends July 31, 1978. So don’t delay.

Sound Guard® keeps your good sounds sounding good.
Empire's Blueprint for Better Listening...

No matter what system you own, a new Empire phonograph cartridge is certain to improve its performance.

The advantages of Empire are threadless. One, your records will last longer. Unlike other magnetic cartridges, Empire's moving iron design allows our diamond stylus to float free of its magnets and thus, this improves its wear life and produces much less weight on the record surface and insures longer record life.

Two, you get better separation. The small hollow iron armature we use allows for a lighter pill in its positioning among the poles.

So, even the most minute movement is accurately reproduced to give you the space and depth of the original recording.

Three, Empire uses 4 poles, 4 coils, and 3 magnets (more than any other cartridge) for better balance and hum rejection.

The end result is great listening. Add tion one for yourself or write for our free brochure. "How To Get The Most Out Of Your Records." After you compare our performance specifications we think you'll agree that, for the money, you can't do better than Empire.

Empire Scientific Corp., Garden City, New York 11530

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**MODEL**

<table>
<thead>
<tr>
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<td></td>
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<td></td>
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<tr>
<td>1kHz-5kHz:</td>
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<td>3 dB</td>
<td>20Hz-20kHz:</td>
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<td>20kHz to 20kHz:</td>
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<td>1kHz to 20kHz:</td>
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<td></td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>@ 3.54 cm/sec</td>
<td>2%</td>
<td>2%</td>
<td>@ 2kHz-20kHz:</td>
<td>2%</td>
<td>@ 2kHz-20kHz:</td>
<td>1%</td>
<td>@ 2kHz-20kHz:</td>
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<td>@ 2kHz-20kHz:</td>
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<td>100k Ohms/channel</td>
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<td>under 100 pF/channel</td>
<td>under 100 pF/channel</td>
<td>300 pF/channel</td>
<td>300 pF/channel</td>
<td>300 pF/channel</td>
<td>300 pF/channel</td>
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<td></td>
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<td></td>
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<td>@ 3.54 cm/sec</td>
<td>mV channel</td>
<td>mV channel</td>
<td>mV channel</td>
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CIRCLE 11 ON READER-SERVICE CARD
The Equipment: Dual Model C-939, an automatic-reverse bidirectional stereo cassette deck, in metal case with wood frame. Dimensions: 17¼ by 11¾ inches (frame), 4½ inches high plus clearance for controls and cassette-well door; accessory hardware provided for vertical wall mounting and for canting unit toward the user on horizontal surfaces. Price: $550; optional CH-82 hinged dust cover, $24.95. Warranty: "limited," one year parts and labor. Manufacturer: Dual, W. Germany; U.S. distributor: United Audio Products, Inc., 120 S. Columbus Ave., Mount Vernon, N.Y. 10553.

Comment: Even the most unobservant will discover, when they go to turn on the Dual 939, that this is not your run-of-the-mill deck: There is no on/off switch. AC power is supplied when you push any of the operation-mode switches and cut off when you push STOP or EJECT. That feature is not unique, although some of the 939's goodies are. Let's give them a once-over before getting down to more basic considerations.

The automatic-reverse system employs two capstans and pinch rollers (each pre-empting one of the large end holes in the cassette) and two erase heads (fitting into the smaller holes) plus a single record/play combination head for both directions of tape travel. Thus the 939 will not only play, but record in both directions. Manual direction reversing is almost instantaneous in either mode; automatic reversing occurs, in playback only, at the ends of the tape—meaning the end of the leader unless you are using leaderless cassettes. The CONTINUOUS button can be used to play back both sides of the cassette endlessly. In normal operation, and with the A side of the cassette up, the drive will reverse at the end of the first side and stop at the end of the second.

If, in your recordings, you pick up some details—say, commercials from FM—that you could just as soon do without, the deck will erase them for you with the FADE EDIT feature, which works in playback to erase unwanted material. With the tape running, you turn and press an on/off knob (in effect, a safety interlock); then, just as the unwanted material begins, you turn the PB LEVEL knob from MAX to MIN; when the end of the unwanted patch comes up (the tape counter will help determine this), you turn back to MAX and release the on/off knob. That's it. There now is a nice, neat fadeout at the beginning of the excision and an equally neat fade-in at its end. The effect can be monitored from the deck's output while you're working.

The headphone level controls are a nice touch, though even with fairly sensitive headsets we found it unnecessary to turn down the level. The use of screwdriver "knobs" for setting Dolby-FM and output levels seems like a good idea. The line/mike mixing always is welcome. So is the peak limiter, for live speech recording or similar uses.

But the most important single feature probably is the LED display that replaces conventional meters. Why LEDs? Because they are quicker in responding to the signals they measure than any meter needle can be, for one thing. For
another, the coloring—green at 0 dB and below in progressively larger steps as the LEDs move toward -20 dB, red in 1-dB steps from +1 to +5 dB—makes it easier to keep an eye on both channels at once. If you’re watching the left channel when the right flicks into the red, you see it. (A side-by-side array—common in the many professional LED signal-level devices that more and more are replacing VU meters—would make channel comparison easier yet.) According to Dual, the display monitors signals after recording equalization, rather than before. We prefer this because it more closely approximates the demands made on the tape.

The display mode is switchable: VU / PEAK. Calibration in either mode is the same, and the only difference seems to be that in the PEAK mode there is no damping of response quickness, while the VU mode smooths out the transients. Since their reference zero is relatively low (5 or 6 dB below the DIN reference 0 dB of 250 nanowebers), the headroom for transients is fairly generous in the VU mode, but possibly excessive in the PEAK mode. To put it another way, since an LED display can really show you instantaneous values (which no meter can—"peak reading" meters only approximate them) no headroom is needed in this mode. With the Dual, therefore, you can drive instantaneous peaks, as displayed in the PEAK mode, well into the red without audible misadventure. This is not necessarily true for the VU mode, though occasional flicks into the red normally will be acceptable. So Dual’s "metering" takes some thought and familiarization if it is to be used to best advantage, but once that is done we find it a significant step in the direction of useful, readily comprehensible signal quantification for amateur recordists.

The whole LED panel pops up at an angle of about 35 degrees to the top plate, which we found convenient in using the deck horizontally. A chromed bracket on the inside of the cassette well lid acts as a mirror to help you see tape motion and tape use (as viewed through the illuminated window in the cassette itself) with the deck in this position. The supplied brackets for angling the deck toward the user can be inserted in three different positions—an excellent idea. Though hardware for wall mounting is included, the design is less appropriate for vertical use. Until the cassette-lid is shut, for example, the cassette must be held in place or it will fall out of the lid’s guides. And if the deck is mounted below eye level, the cassette window becomes difficult to see and the transport-control levers relatively awkward to manipulate.

Except for the RECORDING control, there is no interlocking between levers, so you need not go via STOP in changing modes. This plus the very rapid yet apparently gentle fast-wind modes (and, of course, the bidirectional design) make for very fast, versatile handling. At first, however, the multiplicity of levers and the bidirectionality itself can confuse users accustomed to conventional decks. Just hang in there; you’ll get the knack soon enough.

The lab tested the deck’s ferric (Fe) mode using Maxell UDXL-1 tape, which seems a very good match. Response is quite flat through most of the range and reaches out reasonably well toward the frequency extremes. Response is a little more extended, though not quite as flat, with the FeCCR setting and Sony ferrichrome tape (substituted for the BASF version, which—though suggested by Dual for use with the 939—is not available commercially in this country). Best results of all were obtained with chrome tape (the lab used Scotch, though most brands are interchangeable), which produced superbly flat response curves that reach almost as high as those for ferrichrome. Cobalt-modified chrome-compatible ferric tapes also yield excellent results with the deck. We were able to copy a directly cut Sheffield disc onto TDK SA with no trouble whatever and no significant loss in signal quality but for a very slight added background hiss.

All the remaining measurements of the 939 are at least very good; those for flutter suggest that the performance level may be beyond not only your ability to perceive any flutter, but the lab’s ability to measure it. But performance for its own sake is not really the Dual’s

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### Dual C-939 Cassette Deck Additional Data

<table>
<thead>
<tr>
<th>Measurement</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Speed accuracy</td>
<td>0.36% fast at 105, 120, &amp; 127 VAC</td>
</tr>
<tr>
<td>Wow and flutter</td>
<td>playback: 0.06% record/play: 0.05%</td>
</tr>
<tr>
<td>Rewind time (C-60 cassette)</td>
<td>45 sec.</td>
</tr>
<tr>
<td>Fast-forward time (same cassette)</td>
<td>45 sec.</td>
</tr>
<tr>
<td>S/N ratio (re 0 VU, Dolby off, CBS weighted)</td>
<td>playback L ch: 54 dB R ch: 51 dB record/play L ch: 51 dB R ch: 50 dB</td>
</tr>
<tr>
<td>Erasure (333 Hz at normal level)</td>
<td>70 dB</td>
</tr>
<tr>
<td>Crosstalk (at 333 Hz)</td>
<td>record left, play right 36 dB record right, play left 35 dB</td>
</tr>
<tr>
<td>Sensitivity (re DIN 0 VU)</td>
<td>line input L ch: 155 mV R ch: 145 mV mike input L ch: 0.55 mV R ch: 0.42 mV</td>
</tr>
<tr>
<td>LED display action (re DIN 0 VU)</td>
<td>L ch: 6 dB high R ch: 5 dB high</td>
</tr>
<tr>
<td>Maximum output (re DIN 0 VU)</td>
<td>L ch: 1.3 V R ch: 1.3 V</td>
</tr>
</tbody>
</table>
Garrard's Prescription for Ailing Discs


Comment: Though the name "Music Recovery Module" may seem a trifle abstruse, its application to this fascinating piece of hardware is apt in two ways: First, the unit is an outboard phono preamp with RIAA equalization and, in that sense, recovers the music from storage on the disc; second, it manages to suppress a large percentage of the annoying pops that afflict virtually all records as they age and a distressing number even when new. Clearly, the click-suppression function was foremost in the mind of the designer, but it turned out that the most effective way to accomplish that task was to incorporate the necessary circuitry in a phono preamp. Since click suppression is an occasional function, the lab tested the MRM-101 first as a phono stage—a role in which, according to the data, it performs quite well. The gain at 1 kHz is 36 dB, which is just about average. At the same frequency clipping does not occur until the output reaches 9.5 volts (equivalent to an input of 145 millivolts). The MRM is intended to feed its signal to an aux input, so its nominal output voltage is 300 millivolts. At this level, total harmonic distortion is admirably low, reaching 0.025% worst-case. Intermodulation performance is almost as good at 0.046%. Signal-to-noise ratio is adequate at 65 dB with respect to rated output and just under 72 dB with respect to a 10-millivolt input.

Accuracy of RIAA equalization is good, the largest error in the range from 40 Hz to 20 kHz being just under 1½ dB (at 40 Hz). By 20 Hz, response falls off by an additional 2 dB. Practically inaudible when music is played, this gradual low-end rolloff is deliberate and extends below 20 Hz to combat subsonic noise. The sound of the MRM-101 can be characterized as warm but with good definition. The highs are clear and sweet, the bass is solid, and there is no noticeable tendency toward undesirable interaction with phono cartridges. We were pleased to find that activation of the suppressor does not affect the sound in any way unless a click is present.

As Garrard describes the denoiser circuitry, it identifies

| Output at clipping (channels driven simultaneously) | L ch | 9.5 V |
| R ch | 9.5 V |
| RIAA equalization | +¼, -1½ dB, 40 Hz to beyond 20 kHz |
| | +¼, -3½ dB, 20 Hz to beyond 20 kHz |
| Input characteristics (for 300 millivolts output) | Sensitivity | 4.6 mV |
| S/N ratio | 65 dB |
| Phono overload (clipping point) | 145 mV at 1 kHz |
| Total harmonic distortion (at 300 millivolts output) | L ch | <0.024%, 20 Hz to 20 kHz |
| R ch | <0.025%, 20 Hz to 20 kHz |
| IM distortion (at 300 millivolts output) | 0.046% |
an impulsive transient resulting from a scratch by three characteristics: rapid onset, rapid decay, and a total duration of 1 millisecond or less. Unless all three are detected, the unit lets the music pass unscathed. When a "bad" transient is suppressed, the gain is lowered by 30 dB for about 1 millisecond, allowing some low-frequency energy to pass. This is normally masked by the bass content of the music; if bona fide low frequencies are absent, a slight thump, infinitely preferable to the unprocessed transient, is audible. The user of the MRM need bother with just two controls: One cuts the suppressor in and out (Garrard suggests that it be left in at all times), and the other adjusts click-suppression sensitivity. The latter is fairly critical. If it is too low, the clicks get through; if it is too high, musical transients are removed. But in practice, a setting only slightly too high does not predicate disaster: The denoiser behaves gracefully even when pushed into error.

From our observation, the Music Recovery Module seems designed to act conservatively. If there is any doubt, the transient is allowed to pass. This means that minor ticks remain audible even as the LED indicator flashes intermittently to show that the suppressor is operating. Those who harbor doubts when this state of affairs prevails can restore their faith by switching the suppressor out for a few seconds and listening to the really bad stuff that is being trapped. Most important, the MRM introduces no cures worse than the disease. In short, it works. Of course, it won't perform miracles, but it works—and certainly well enough to be worth its price.

**BGW’s Pros Make an Amp for the Home**


**Comment:** The BGW 410 is the first power amp from that company to be designated a consumer product and the first to use a full complementary design (one in which the positive and negative swings of the waveform are handled symmetrically by the output stage). The old SCR crowbar circuitry has given way to a magnetic-arc-interruptor speaker-protection circuit, and the bandwidth and slew rate of this model have been increased considerably over those of BGW's previous line of professional products. The designers have paid due attention to reduction of the "newest" form of distortion—so-called transient intermodulation—and BGW claims that the TIM of the 410 is so low as to be virtually unmeasurable.

The power-output meters, too, have yielded to the much faster-acting LED display, but here tradition lingers. BGW has arranged each of the multicolored, peak-reading displays in an arc suggesting the scale of a conventional meter. Graceful, perhaps, and more responsive on transients, to be sure; but just as difficult to read and use for comparing channel levels as was the old swing-pointer type. To that extent, we would have found side-by-side "bar graph" LED displays more useful. Each indicator includes ten LEDs, nine of which cover a 33-dB range. The tenth is always illuminated as a pilot light. The lowest three "active" lights are green and respond in 6-dB increments. From there on up, the steps are tightened to 3 dB and the colors go from yellow to red (in the top two steps). Full-scale indication is 200 watts; the meter-range switch increases the sensitivity so that 20 or 2 watts may be used as full scale. Actually, on a dynamic basis, the 410 is capable of reproducing musical peaks at a level about 1½ dB above rated power before clipping, and recovery from overload is excellent. The damping factor is very high.

BGW has just adopted a dual-band method of specifying harmonic distortion—less than 0.02% from 20 Hz to 1 kHz and then rising linearly to no more than 0.07% at 20 kHz. The lab confirms this claim at the 3-dBW (2 watt), 10-dBW (10-watt), and 23-dBW (200-watt) levels, 0.07% THD just being touched at 20 kHz on the right channel at full output. IM is specified (for 8 ohms) at 0.02%, and the amp meets spec to beyond 25 dBW (320 watts). At 4 ohms IM is predictably higher but still is under 0.15% at 23½ dBW (225 watts); at 16 ohms the IM is phenomenally low.

Frequency response is ruler flat throughout the audio band and down less than 3 dB at 100 kHz. The excellent square-wave response bears witness to the wide bandwidth and well-controlled phase characteristics.

Two sets of loudspeakers can be connected by means of color-coded, spring-loaded connectors. The heavy three-wire line cord is best connected directly to the wall socket; few preamps are set up with convenience outlets for a three-prong plug, and many of these are not capable of handling the turn-on surge that today's powerful amps draw. There are no audible transients to be heard in the speakers when the BGW 410 is turned on and off, and until the preamp comes to life there isn't a hint of noise from the speakers.

In listening we were unable to detect that the 410 added to or subtracted from the sonic source in any way. In short, it is one of the most neutral power amps we have heard. (It is almost ironic that a result so close to seeming unspec-
tacular when it is described should require such care in design.) Appreciation of the transparency of a fine amp such as this one requires considerable listening to the clarity of the music that passes through it, with all its details intact and without gratuitous contributions. Balanced against this level of performance, the price of the BGW 410 seems quite reasonable.

**BGW Model 410 Additional Data**

- **Power output at clipping (channels driven simultaneously):**
  - L ch: 23½ dBW (231 watts)
  - R ch: 23½ dBW (231 watts)
- **Frequency response:**
  - ±0 dB, <10 Hz to 20 kHz
  - +0, -2½ dB, <10 Hz to 100 kHz
- **Input characteristics (for rated output at full gain):**
  - Sensitivity
  - Noise
  - S/N ratio
  - 2 volts
  - -79 dBW
  - -102 dB
- **Damping factor at 1 kHz:** 180

**Innotech's Foray off the Beaten Track**


**Comment:** The dangers of judging a book by its cover are well known, and the adage might also be applied to loudspeakers. With so many "time aligned" loudspeakers on the market, it is easy to conclude that all models that look unusual are of this ilk. Not so. The unfamiliar appearance of the Innotech D-24 stems less from phasing considerations than from the aim on the part of its designers to minimize formation of standing waves both inside and outside the enclosure.

The D-24 is a three-way system using a pair of 5-inch Bextrene-cone drivers as the woofers. The signal crosses over to a 1½-inch dome midrange at 3,500 Hz. (The crossover networks are nonadjustable.) Above 11 kHz, a 3/4-inch dome tweeter with a shallow flared throat comes into play. All four drivers are mounted on a sloped panel that is approximately at a seated listener's ear level. The 30-degree tilt of the baffle is said to eliminate standing waves in the room—true to the extent that the asymmetrical placement...
of the sound source does minimize reinforcement of the natural room modes at frequencies where the source is directional.

The asymmetric geometry carries over into the internal enclosure design as well. The woofers are rear-loaded into a tapered transmission line that terminates in a port (1/4 by 9 inches) at the speaker's base. Innotech claims that, because there are no parallel surfaces along this path, no standing waves are created within the cabinet. A combination of long-haired lamb's wool and long-fibered polyester damps the transmission line and, together with the asymmetry of the internal construction, prevents reflection of the rearward pulse of the woofers back onto the driver cones. The walnut veneered fiberboard enclosure is said to be totally airtight except for the port.

Connection to the system is via color-coded three-way binding posts on the slanted bottom panel of the enclosure. (Its supports are the two side "walls.") Two fuses, an active one in a holder and a spare in a clip, are also on the bottom panel.

The D-24 has a rated 5-ohm minimum impedance. Tests at CBS Technology Center verify that figure reasonably well; the "nominal impedance" measures 4.75 ohms at 190 Hz. The primary resonance occurs at 57 Hz, where the impedance approaches 23 ohms; a slightly higher peak occurs at 1.7 kHz, above which the impedance slips off to about 4.5 ohms at 20 kHz. With this 5-to-1 spread, it is difficult to come up with an average—though 8 ohms seems a reasonable figure. With one-third-octave bands of noise, the on-axis frequency response shows a dip of 8 to 9 dB around 1.7 kHz (the frequency at which the impedance hits maximum) and a somewhat irregular rolloff above 5 kHz. The dip fills in to an extent on the omnidirectional curve, where it is 4½ dB below the rest of the midrange.

The response of the woofers is very smooth between 80 and 800 Hz, with a slight peak at 63 Hz. In the anechoic chamber the response falls off below that. The dispersion in this range is very good, as the similarity between on-axis, front-hemisphere, and omnidirectional response curves show. Above 1 kHz, the response is not as smooth, nor are the three curves so similar. In the chamber, the average omnidirectional response in the range between 50 Hz and 8 kHz departs from average by 3 dB or less; the entire band from 31.5 Hz to 16 kHz is within ±5 dB spread.

The tone-burst response is good, and the efficiency perhaps a trifle below average—82% dB SPL at 1 meter from a 0-dBW (1 watt) noise source. At 300 Hz the speaker accepts a full 20-dBW (100-watt) test tone without buzzes, rattles, or excessive distortion, delivering a 103-dB sound pressure level while doing so. On pulses, it will handle the full power of the lab amp (28½ dBW—758 watts) for a peak sound pressure level of 111½ dB.

At power frequencies, however, the distortion is more severe. At the 0-dBW level, it increases from 0.28% at 100 Hz to 2.6% at 50 Hz and 5.6% at 30 Hz; the second and harmonic generally predominates over the third. With a power input that produces 100 dB SPL at 300 Hz, distortion increases very rapidly from about 2.2% at 200 Hz to more than 10% at 100 Hz and below.

To protect the small woofer cones from subsonic signals, we conducted our listening tests with a low-cut filter (12 dB per octave below 15 Hz) in the circuit. Even so, we observed a fair amount of subsonic cone motion.

At moderate listening levels, we found the reproduction of music good. The midbass is very smooth, the treble somewhat less so; instruments such as the saxophone are well handled. The stereo image has very good width and a reasonably solid center; its depth is also much better than average. The optimum listening position for the D-24 is much less critical than with most speakers, probably because of the relatively high ratio of reflected sound to direct sound the slanted drivers afford; imaging remains acceptable even in listening positions well off center.

At high listening levels, the D-24 begins to show signs of stress. The bass loses some of its solidity, and a brittle quality begins to be apparent in the upper treble. To its credit, the system retains the accuracy and the rather "forward" sound of the middle registers even when the music is loud, but overall it performs best when not pushed too hard. In a sense, the system has preferences. It is quite comfortable with the subtleties of chamber music and can flex its muscles a little to handle an orchestral program. Heavy rock, on the other hand, might leave it somewhat breathless.

The design of the Innotech D-24 encompasses some highly imaginative engineering. Asymmetrical driver placement and the avoidance of parallel surfaces in the enclosure apparently contribute a great deal to a well-integrated stereo image and suppression of standing waves. The latter characteristic doubtless is important to the symbiosis between the D-24 and a rather small room, which seems like the preferred environment for this speaker. Such construction features are, of course, not cheap and probably account in part for the fairly substantial price.

Like most speakers, the Innotech D-24 shines in some areas at the expense of others, but here the designers have adroitly juggled the parameters to give the unit a consistent overall character. The environment in which the suppression of reflections is most important—a relatively small room—also is the one in which this speaker will sound best.

**CIRCLE 132 ON READER-SERVICE CARD**
Sansui's G-3000: Both Attractive and Competent


Comment: The G-3000 is neither the least expensive receiver in the Sansui line nor, by a wide margin, the most expensive. It fits into that vast middle ground wherein a designer is neither straitjacketed by economic considerations nor left totally to his own whim. This—the area of compromise, the area of decisions—is where competition is most fierce.

For its price, the Sansui G-3000 is loaded with features: an AM section as well as FM; bass, treble, and volume controls with detents; even a microphone input and mixing control should you feel the urge to sing along. (High-impedance microphones are recommended; while you can mix the microphone with any source, you cannot tape from this mike input without jury-rigging a tape input—via a pad—from the speaker connections.) The only features conspicuously absent are high- and low-cut filters.

Nor does the receiver look like a budget product. The simulated wood-grain cabinet lends a more finished appearance than traditional black-painted metal, and the generous size of the volume and tuning knobs adds a nice touch. All input and output connections are made via jacks (pin jacks, plus a DIN in/out tape socket) mounted on a horizontal "shelf" within the enclosure at the rear of the chassis. Thus no extra depth need be left for the plugs.

Two sets of speakers can be connected via color-coded binding posts. (Some care should be taken to avoid shorts when using stranded wire, as the posts are rather closely spaced.) Similar binding posts are provided for 300- and 75-ohm FM antenna inputs as well as for an external AM antenna, if desired. (A nonaccessible ferrite-rod AM antenna within the cabinet is used in strong-signal areas.)

Lab data taken on the FM tuner indicate excellent sensitivity in both mono and stereo. The frequency response in either mode is excellent—flatter than that of many much more expensive products—and the separation is very good. The THD remains reasonably low at frequencies of 1 kHz and below in either mono or stereo; that at 10 kHz—not as directly related to listening quality—is a little above average in stereo operation. Mono IM distortion is very good for a receiver of this price. The mono signal-to-noise ratio is also quite good. When a stereo broadcast is received, enough 38-kHz subcarrier is present in the output to suggest that use of a multiplex filter for Dolby taping would be advisable. The alternate-channel selectivity exceeds spec and is at least par for this price range. The capture ratio too stacks up well with that of many competing models.

The power output capability of the G-3000 meets its 26-watt (14 1/2 dBW) per-channel rating with a smidgen to spare. At full rated output, the THD is admirably low, generally only one-third of Sansui's allowances (0.05% or less, compared with a 0.15% spec). The IM at very low power levels hints at some residual crossover distortion but, at high power levels, is well under control. The damping factor should be adequate for any speaker system. At the 0-dBW level, the frequency response is as close to flat as human hearing should be expected to detect. The phono equalization measures even closer, and the overload point is adequate for any cartridge that we know of.

The signal-to-noise ratios are quite good in view of the fact that these are unweighted broadband noise measurements referenced to Sansui's 26-watt power rating. Even in the phono mode, the output noise power is only 2.6 microwatts (-55 3/4 dBW), for a signal-to-noise ratio equivalent to about 82 dB, using the common 10-millivolt reference. The bass and treble controls are reasonably symmetric, have turnover frequencies of 360 Hz and 2 kHz, respectively, and provide a control range of ±10 dB or more at 50 Hz and 10 kHz. The loudness contour boosts both bass and treble by a modest 6 dB at the frequency extremes.

In use, the FM-tuner section exhibits the high sensitivity that the lab found on the test bench. In crowded portions of the dial, however, the rather broad selectivity limits its ability to receive a weak signal next to a strong neighbor clearly. In the presence of a strong alternate-channel signal, the center-of-channel tuning meter does not indicate the point of best reception for the weaker station, although it is very accurate for widely spaced stations. The signal-strength meter, too, is more reliable when there are no strong interfering signals.

On relatively weak stations ignition and other electrical noise is noticeably present in the audio, even when signal strength is sufficient to quiet the thermally generated background hiss. The muting action allows some signal leakage, and moderate-to-strong stations can break out of mute before they are fully tuned even, on occasion, when
## Sansui G-3000 Receiver Additional Data

### Tuner Section

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Specification</th>
</tr>
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<tbody>
<tr>
<td>Capture ratio</td>
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<tr>
<td>Alternate-channel selectivity</td>
<td>56 dB</td>
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<td>S/N ratio (mono, 65 dBf)</td>
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<td>THD Mono</td>
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<td>80 Hz</td>
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<tr>
<td>1 kHz</td>
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<td>10 kHz</td>
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<td>19-kHz pilot</td>
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<td>38-kHz subcarrier</td>
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<tr>
<td>L ch</td>
<td>+ 1 1/4, -2 dB, 20 Hz to 15 kHz</td>
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<tr>
<td>R ch</td>
<td>+ 1 1/4, -2 dB, 20 Hz to 15 kHz</td>
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<td>Channel separation</td>
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<td>&gt; 35 dB, 150 Hz to 6 kHz</td>
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<td>&gt; 25 dB, 30 Hz to 14.5 kHz</td>
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### Amplifier Section

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<td>Power output at clipping (channels driven simultaneously)</td>
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<td>L ch</td>
<td>14 1/2 dBW (29 watts)</td>
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<td>R ch</td>
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<td>Frequency response</td>
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<td>+0, -3 dB, below 10 Hz to 80 kHz</td>
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<td>Sensitivity</td>
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<tr>
<td>tape</td>
<td>150 mV</td>
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<tr>
<td>Phono overload (clipping point)</td>
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<tr>
<td>Damping factor at 1 kHz</td>
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### Diagrams

- Intermodulation Curves
- Harmonic Distortion Curves
- Square-wave response

For more reports on equipment, see Backbeat.
they are weak enough to mute at the point of best reception. Fading signals also can break in and out annoyingly. But the relative importance of this behavior will depend on your reception conditions. Generally, it would be likely to matter more in crowded metropolitan areas than elsewhere. On relatively strong clear-channel stations, the tuner of the G-3000 works very well. And a quick check of the AM section shows it to be better than those of some expensive receivers we've used.

Within its power capability, the amplifier section rates high marks. The volume-control taper is very smooth and gradual over the range in which it is normally used; the tone controls are a bit heavy-handed in their extreme settings but, for the first step or two either side of center, do their job with more than average subtlety. At low listening levels, the loudness contour is acceptable. The phono preamp is the sonic equivalent of those we've found in substantially more expensive products. The dynamic range—from the low noise to the high overload point—is wide enough even for direct-to-disc records. In general, the sound is clean and has good definition, bowed string instruments being especially well handled. Piano sound is a trifle "rounded," perhaps, but that certainly is preferable to the overly strident highs we have heard on many preamps. It is not hard to drive a receiver of the Sansui's power output into overload at high listening levels. When that happens, the sound does suffer, of course, but the G-3000 seems to recover quickly and well.

The star of this receiver certainly is the amplifier, with the preamp section not far behind. Both run far ahead of minimum standards for a receiver with so modest a price. The tuner section, too, is ahead of minimum standards, if not by nearly so wide a margin. As a totality, the G-3000 not only continues the Sansui tradition of offering good value at unassuming prices, but is perhaps the most handsome ever in this generally attractive family.

**Disctraker—Damping in a Convenient Package**


**Comment:** The advantages of adding damping to a tone arm have been fairly well documented by now and constitute your basic "subtle but significant improvement." Disctraker amounts to a small pneumatic shock absorber (comparable to the shocks that add damping to a car's suspension) designed for attachment to the tone arm headshell to contact the record surface within a short distance of the stylus. The device not only adds some mass to the arm, but is installed at the point where it contributes most to effective mass. The damping supplied seems, however, to be sufficient to compensate for the extra mass.

On most arms, Disctraker is secured to the headshell by the screws that hold the cartridge. Once the device is in place, the arm should be balanced just as in installing a new cartridge. Then the Disctraker height is adjusted so that the movable sleeve is halfway between the extremes of its vertical travel, with the stylus in contact with the disc. The correct tracking force for a 0.6 gram in excess of the cartridge. Antiskating is set for the total tracking force.

A Disctraker should be installed with the same care you would give to mounting a cartridge. It is of particular importance that the moving sleeve be perpendicular to the record surface. The manufacturer supplies extra hardware that makes that task easier (the long plastic screws that can be cut to length at the end of the job are an especially nice touch), though it will not encompass the needs of all available arms—Dual's, for example. Additional parts for some of these (such as Dual single-play models) are available from Discwasher, free upon request.

The results obviously depend on the particular arm and cartridge with which the Disctraker is used. We installed it on a fairly massive tone arm carrying a cartridge of medium body mass and moderate stylus-suspension compliance. With this setup we can hear somewhat better definition of low frequencies and note that dancing and fluttering of woofer cones resulting from subsonic rumble—such as that caused by record warps—seem to diminish significantly. Removal of the damping generally confirms this judgment: The sound is better with Disctraker than without.

Next, we added the device to a system consisting of a fairly compliant, lightweight cartridge mounted in a low-mass arm. The effect here seems less dramatic (subsonics were not a problem before adding the Disctraker), but once again we note an improvement in bass clarity—not one of this cartridge's strong points in the first place. Extended listening convinces us that the benefits are not limited to low frequencies. An elusive harshness that we had often heard from both test pickups when prominent high tones appeared along with heavy bass modulation became far less bothersome, though it is not obvious why this should be so.

Like any damping applied to an existing system, Disctraker falls short of working miracles. If, for example, you are trying to run a highly compliant cartridge in a tone arm whose mass is like that of a construction crane, lots of luck; what you really need is a new arm. But if you have chosen your record-playing components with care, Disctraker could easily prove a welcome addition to them—a significant sonic improvement for a minimal price.
Having minimized the distortions caused by rumble, wow and flutter, our engineers turned to the most disturbing distortions of all — those in the phonograph record itself.

The Music Recovery Module.*

Here is the solution: a component that electronically identifies and filters the pops, clicks and scratches before they reach the listener’s ears. What comes through is the music — and only the music.

The way it works.
The Music Recovery Module employs an ingenious patented detector which is programmed to recognize the unique waveform of a noise impulse (pop, click or scratch) and activate an electronic control to suppress the noise to far below the level of the music. A "bucket brigade" provides a 2.7 millisecond time delay during which the noise impulse is suppressed...long before you hear it.

What it will do for you.
The Music Recovery Module will deepen your enjoyment of records — the prime source of music in the home. It will "renew" your older records. It will even make your new records sound better. Visit your Garrard dealer for a dramatic demonstration. You'll hear why the Music Recovery Module belongs in your system. If you'd like complete information, write: Garrard, Dept. B, 100 Commercial Street, Plainview, N.Y. 11803.

Announcing a new component from Garrard that's as important to phonograph records as Dolby is to tape.

Garrard®
A Way-of-Life Revolution in the Making?

Video cassettes, currently making a strong move into the marketplace, constitute just one piece of a complex and rapidly changing picture.

HOME VIDEO CASSETTES, friends, are finally here. Over the last ten years, while others cried out in wonder, we have kept our cool about the miracles of performance, convenience, and price that were promised at an endless succession of press conferences. Now the situation is changing—rapidly, as we outlined in the November 1977 “News and Views.” By the final months of 1977 demand had outstripped manufacturing capacity for at least three of the cassette systems on the market, and it appears likely that the supply will be unable to catch up during 1978.

If there were any attendees at last fall’s ITA (International Tape Association) Home Video Systems Seminars who disagreed with this view, they were keeping mum. The seemingly unanimous consensus during those two days in New York was that the video tape recorder is neither a threat nor a promise; it is a reality that already is beginning to change our lives. It can, I think, change our lives—or at least act in concert with other recent developments to do so—in much broader and deeper ways than may be immediately apparent.

What’s So Different?

To see why it took ten years for all the promises to pay off, let’s spend a moment on past failures. Sony was the first company to suggest loudly in public that video tape would presently be a home product. Its video tape commercials (along with those for “tummy TV”) of a decade ago were successful in making Sony a household word that didn’t necessarily mean portable transistor radios. But while the emphasis on video tape may have helped cool enthusiasm for the CBS EVR (Electronic Video Recording) system—which, unlike tape, was not user-recordable—the burst of enthusiasm that it received leaned heavily on two false
# HOME VIDEO-CASSETTE FORMAT LICENSEES AT A GLANCE

<table>
<thead>
<tr>
<th>FORMAT</th>
<th>COMPANY</th>
<th>EQUIPMENT AVAILABILITY</th>
</tr>
</thead>
<tbody>
<tr>
<td>BETA</td>
<td>Aiwa</td>
<td>U.S. plans not announced</td>
</tr>
<tr>
<td></td>
<td>NEC</td>
<td>Expected this year</td>
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<tr>
<td></td>
<td>Pioneer</td>
<td>U.S. plans not announced</td>
</tr>
<tr>
<td></td>
<td>Sanyo</td>
<td>Introduced late 1977</td>
</tr>
<tr>
<td></td>
<td>Sears Roebuck</td>
<td>Introduced in selected markets</td>
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<tr>
<td></td>
<td>Sony</td>
<td>On the market since 1975; slow-speed option introduced 1977</td>
</tr>
<tr>
<td></td>
<td>Toshiba</td>
<td>Introduced late 1977</td>
</tr>
<tr>
<td></td>
<td>Zenith</td>
<td>Available since Sept. 1977</td>
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</table>

<table>
<thead>
<tr>
<th>GREAT TIME MACHINE</th>
<th>Quasar</th>
<th>Available since Jan. 1977</th>
</tr>
</thead>
<tbody>
<tr>
<td>V-CORD II</td>
<td>Sanyo</td>
<td>Available since July 1977</td>
</tr>
<tr>
<td></td>
<td>Toshiba</td>
<td>U.S. plans not announced</td>
</tr>
</tbody>
</table>

| VHS                | Akai   | Expected later this year  |
|                    | Curtis Mathes | Introduced late 1977 with four-hour option |
|                    | General Electric | Expected this spring |
|                    | JVC    | Expected later this year  |
|                    | Magnavox | Two-hour version available since Oct. 1977 |
|                    | Mitsubishi (MGA) | Introduced late 1977 with four-hour option |
|                    | Panasonic | Two-hour version scheduled for introduction late 1977 |
|                    | Quasar  | Introduced late 1977 with four-hour option |
|                    | RCA    | Expected this year        |
|                    | Sharp  | Available since Sept. 1977 with four-hour option |
|                    | Sylvania | Two-hour version may be introduced |
|                    |        | Introduced late 1977 with four-hour option |

As this is being prepared, late in 1977, a number of questions remain unanswered. Announced introduction dates have not necessarily been confirmed by available products. Where the announcement has been in favor of the two-hour VHS system, it seems likely that products with the four-hour option may actually take their place. Quasar is expected to offer VHS equipment (and is a U.S. subsidiary of Matsushita/Panasonic, which developed the four-hour VHS as well as the Great Time Machine), and Sanyo and Toshiba both are Beta licensees; thus it is an open question whether the GTM and the V-Cord II will remain on the consumer market long. Sanyo considers V-Cord II "industrial," though it is reasonably cost-competitive with Beta.

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concepts: that we would be "stuck" with open reels in video (at a moment when audio cassettes and cartridges were demonstrating the attractiveness of convenience tape formats to American users), and that the video deck was the logical successor to the home movie camera.

The falsity of the first was proved almost immediately by attempts by several Japanese manufacturers to put Sony’s tape into a cartridge-style housing. No sooner had the reel format been "standardized" than it was made obsolete by the realization that, without greater convenience, video tape was bound to limit its market unduly. The attempt to include color in the picture further complicated the question of standards—and remains something of a problem in that, while all the home (AC-powered-deck) formats of today have the color capability, color cameras for them remain extremely expensive. That fact also demonstrates the difficulty tape would have had if it had tried only for the home-movie market, in which color today is a foregone conclusion. More important, none of the home video tape gear of that period was really portable, making most applications of the compact home-movie camera well beyond its reach.

In the intervening decade the importance of three factors has been established: color capability, convenience, and stereo sound. No home video tape system can be considered “in the running” without all three of these features (the stereo more as a hedge against future developments than as a present necessity), nor can it be if the basic deck price is not somewhere in the $1,000 range.

That’s not to say that several systems haven’t proved viable for other purposes without all these features. Sony’s U-Matic system, for example, was once hailed as the coming home system, but the manufacturer itself pointed out that prices never would fall low enough for that; U-Matic—and
Sanyo V-Cord II—decks have found valuable applications instead in industrial markets that can support the higher prices. (Some well-heeled consumers have of course bought such equipment, but they do not constitute anything approaching a mass market.)

And there are portables. Akai has two versions: a cassette black-and-white system and an open-reel color one. But while they fill the portability gap that the older systems didn't even address themselves to, that fact only underlines the real significance of the home decks: as program storage systems tied umbilically to television receivers. "Time warp" already has become a cliché of the VTR, but the implied ability to "save" desirable programming for later viewing—everything from taping the ball game while you're playing a round of golf to keeping a superb dramatic or operatic performance as a library item—is the foundation of the current surge of interest. The portables, while they can be played through TV receivers, are engineered for field use, and current models do not record off the air. In any event, they are not the obvious choice for that use.

Curiously, what has long been assumed in some circles as a requirement of the consumer VTR market—system compatibility—has not been met. When Cartrivision failed a few years ago, one common postmortem assessment was that public fear of obsolescence in favor of a competing system then on the drawing boards had inhibited sales and that a world in which collectors cannot swap video tapes as readily as they now swap, say, audio cassettes reduced its appeal somewhat. Manufacturers generally brushed aside this point of view, claiming that the superior system (each manufacturer's own, of course) would obviously inherit this new world and make it compatible.

But that has changed. Four incompatible systems whose decks sell at below $1,500 currently coexist on the consumer market. Manufacturers concede that in time (that is, when production can outstrip demand) one of these—or conceivably yet another—may emerge as a favorite and become the de facto standard. At the same time, the pro-compatibility pundits (I must admit I have been one) have come to see that, desirable as a single system may be, Americans want video tape gear now and would rather buy up what is available than wait for the smoke to clear.

Not by Video Tape Alone

Several other factors appear to be converging on video tape and could profoundly affect the forms in which several types of home electronics products become available to us. Take video games. They are essentially small special-purpose computers programmed to compete with or to arbitrate between the human players. They see that
The various modes available generally presuppose a high-quality "standard" mode, plus one that, by accepting certain potential compromises in picture (and sound) quality, consumes tape at only half the speed of the standard mode. The tape-consumption figures offer an index to probable relative tape costs in future; though some price differences may result from the relative construction complexity or materials in the cassettes, cost of a given formulation in different formats should be roughly proportional to quantity. The specific prices shown in the chart represent only one brand for each format, but often different brands from format to format, making direct price comparison problematic.

### A VIDEO TAPE FACT SHEET

<table>
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<td>BETA (Betamax) Home cassette system; introduced by Sony in 1975, other licensees.</td>
<td>$1,000 to 1,300</td>
<td>3/4 in.</td>
<td>Full speed, Half speed</td>
<td>1.57 ips, 0.79 ips</td>
<td>60, 120, 13, 17</td>
<td>$13, $13.00</td>
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<td>GREAT TIME MACHINE (VX-2000/VR-1000) Home cassette system; originated by Matsushita, available from Quasar.</td>
<td>$1,000</td>
<td>1/2 in.</td>
<td>(none)</td>
<td>2.05 ips</td>
<td>60, 100, 12, 20</td>
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<td>LVR Home/portable system; under development by BASF, Bell &amp; Howell, others.</td>
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<td>160 ips</td>
<td>63.0</td>
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<td></td>
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<tr>
<td>U-MATIC Industrial cassette system; introduced by Sony, other licensees.</td>
<td>$1,500 and up</td>
<td>1/4 in.</td>
<td>&quot;1 hr.,” “2 hr.,”</td>
<td>3.75 ips, 1.88 ips</td>
<td>60, 120, 45, 52</td>
<td>$45, $45.00</td>
<td>$45.00</td>
<td>$22.50</td>
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<tr>
<td>V-CORD II Industrial/home cassette system; introduced by Sanyo.</td>
<td>$1,300</td>
<td>1/4 in.</td>
<td>Full field, Skip field</td>
<td>2.91 ips, 1.45 in.</td>
<td>87.3, 43.7, 120, 120</td>
<td>$15, $7.50</td>
<td>$15.00</td>
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</tr>
<tr>
<td>VCR Home cassette system; introduced by Philips in Europe.</td>
<td>(not available in U.S.)</td>
<td>1/2 in.</td>
<td>&quot;1 hr.,” &quot;130 min.,”</td>
<td>5.6 ips, 2.8 ips</td>
<td>168.0, 84.0</td>
<td>Not available in U.S.</td>
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<td>VHS Home cassette system; introduced by JVC (&quot;2-hr. version&quot;) and Matsushita/Panasonic (&quot;4-hr. version&quot;), other licensees.</td>
<td>$1,000 to 1,300</td>
<td>1/4 in.</td>
<td>&quot;2 hr.,” &quot;4 hr.,”</td>
<td>1.34 ips, 0.66 ips</td>
<td>40.2, 20.1, 120, 120</td>
<td>$18, $9.00</td>
<td>$18.00</td>
<td>$12.50</td>
</tr>
<tr>
<td>VT-150 Battery-portable open-reel color system; introduced by Akai.</td>
<td>$2,800 (basic)</td>
<td>1/4 in.</td>
<td>(none)</td>
<td>10.0 ips</td>
<td>150.0, 26</td>
<td>$14, $31.50</td>
<td>$31.50</td>
<td>$6.25</td>
</tr>
<tr>
<td>VT-300 Battery-portable cassette b&amp;w system; introduced by Akai.</td>
<td>$1,500 (economy)</td>
<td>1/4 in.</td>
<td>(none)</td>
<td>2.75 ips</td>
<td>82.5, 30</td>
<td>$16, $32.00</td>
<td>$32.00</td>
<td>$10.00</td>
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the rules (and the score) are kept, they make the action visible on the TV screen, and they determine the rhythms and the behavior patterns of that action as well.

Home computers are—by no coincidence, I believe—following fast on the heels of games as the darlings of the home electronics marketplace. The number of new models and their visibility in the marketplace have grown manyfold just in the last year. Several use regular television receivers as CRT (cathode-ray tube) visual displays and/or audio cassette decks as information-storage devices. A knowledgeable programmer already can instruct his computer in the art of playing games, and if the home computer becomes as widespread an adjunct of the American Way of Life as its proponents believe it will in the near future, it is the logical repository for the video game-playing function—whether programmed via a plug-in card, the game player himself, or a program stored on an audio (or video) tape.

All this suggests that we may be moving toward a world in which all our electronic information and entertainment storage and retrieval systems can be integrated, with the individual elements interconnectable like Tinkertoys to construct custom systems that will fulfill the needs of a particular household. Already some traditional patterns based on the separateness of the various functions seem to be breaking down. Video recorder manufacturers point out that these high-technology products are better handled by audio-component shops than by television-receiver salesmen; computers have moved boldly out of the electronics-hobbyist outlets and into department stores; the promise (if not the actuality) of stereo sound for both AM radio and TV has become entrenched; it appears that the video laser-disc technology will shortly be available in audio form as well (as outlined in Harold Rodgers’ article in this issue).

I believe this trend will continue. Carried to its logical conclusion, it may mean that audio components—far from remaining the specialist pursuit that in essence they have been since their beginning—will represent a seminal concept in the growth of much broader home-electronics component systems. And with such systems would come an altered way of life. Already there are stirrings for and against such change. (A Phil Donahue show in December, for example, addressed itself to the problem.)

The American home, which has made room successively for the Pianola and flush plumbing, the radio and thermostatically controlled central heating, the television set and the microwave oven, is being asked to accept a still more sophisticated and capable servant and entertainer. We who once asked, “Where will we ever put the second speaker?” will doubtless find ways of coping—and enjoying.
An Old Show with
New Numbers

The quantum leap promised by digital recording techniques continues a century-long quest for perfection.

by Harold A. Rodgers

Perhaps our own mathematical predilections color our view of the past, but it seems each quarter-century in the history of recordings has brought a quantum leap forward in the search for universally available, technically perfect sound recordings. In 1877 the tinfoil cylinder was invented. Exactly twenty-five years later, Enrico Caruso and the mass-produced, wax-process disc burst upon the market. In 1927 the world woke up to the fact that electrical recording had overtaken it. The next quarter-century point is a bit more equivocal: In 1952 the LP was just coming into full flower, while "binaural" recordings created the first stirrings among the cognoscenti.

And what will history say of 1977? The way things now appear, it well may be called the year in which digital recording surfaced from the laboratory and the imagination—and found its way into the marketplace. Not only does digital recording offer very wide dynamic range, virtual freedom from distortion and tape noise, and the elimination of wow and flutter, but it also enables the
recording engineer to make uniquely undetectable splices and to mix down and dub without the penalty of increased noise. In all these respects, it is a technology well beyond the reach of current standard practice.

What is digital recording, and how does it work? The answer to that is not simple, but we can make a beginning at understanding by considering what it is that is stored on a conventional phonograph disc. The groove along which the stylus passes is more or less a mechanical model of the sound-pressure variations experienced by one or more microphones through some interval of time. If we were to unwind the groove and separate the stereo channels, the result would be two long graphs of pressure against time, one for the left-channel signal and one for the right. To play these graphs (or waveforms) back, it is necessary to scan them at the correct speed and change their “wiggles” back into variations in air pressure—sound waves.

The graphic waveform thus can be regarded as music that has been “frozen” in time. As such, and since it is intended for enjoyment by humans, rather than by creatures such as bats and dolphins, it will have significant frequency components only from 20 Hz to 20 kHz. This is one dimension of the field of “information” that a music recording system must deal with. Another is a dynamic range (the difference between the loudest and softest sounds) of about 80 dB, and a third is the total duration of the music. At the present stage of development, the first and third dimensions are handled well by conventional recording systems; dynamic range has been the problem.

Basic information theory tells us that a signal of limited bandwidth (here, 20 to 20,000 Hz) can be reconstructed perfectly from a series of discrete samples that are close enough together in time to catch the highest frequency component twice in each of its cycles. Thus, by recording 40,000 samples per second, each representing the displacement of a music waveform away from a chosen reference, we can in principle reproduce that waveform perfectly. Digital recording, then, is the process of deriving and storing numerical samples of music.

The perfection with which the waveform can, in fact, be reconstructed depends on the precision of the numerical value of each sample. Absolute precision would require that each number be expressed as an infinite string of digits, a requirement that obviously cannot be met in practice. The uncertainty that arises from a limited degree of precision shows up as noise in the output when the signal is reconstructed as a continuous (analog) waveform. Since such uncertainty arises from quantizing the samples (representing each as a finite set of values), the noise is called “quantizing noise.” The digital recording systems that now exist use either 14- or 16-digit binary numbers (numbers expressed in base 2 rather than in base 10 as in customary reckoning) and suppress quantizing noise by about 84 and 96 db, respectively, in relation to maximum output. Clearly, dynamic range is not a problem for a digital system.

That binary numbers are chosen to represent recorded signals is no accident. Binary digits are extremely convenient to represent or store, requiring only a two-valued choice—"on" or "off," in electrical terms, 0 or 1 in graphic terms. Thus, in a tape system, for example, the heads and electronics need only recognize two different conditions, which can be made independent of the nonlinearity—the distortion-generating tendency—of the tape system itself. So digital recording can reduce distortion to levels comparable with those of the quantizing noise.

The process of sampling an analog waveform could, in principle, be carried out on a random basis provided that the highest frequency component present never escapes its two prescribed examinations in each cycle. But since this would create the problem of synchronizing the playback sampling rate with that used for recording, the sampling is usually carried out under the control of a very precise master oscillator or “clock.” The wave is examined only when the clock puts out a pulse. Not only does this solve syncing problems, but it also means that the rate at which binary digits (or “bits”) are delivered to the output on playback is independent of the instantaneous speed of the mechanical transport system—provided only that the average speed is correct and the fluctuations not too large. If these conditions are met, the error in the clock oscillator is the sole remaining source of pitch instability in the system.

Since the quartz-crystal oscillators used as clocks...
can be made with drift of a mere 0.0001% or so and since the frequency with which drift occurs is measurable in cycles per hour rather than cycles per second (Hertz), digital recording reduces wow and flutter and pitch errors to levels that are difficult to measure and impossible to hear.

As with other advanced engineering systems, the high level of performance that digital recording can deliver is attained only when some fairly stringent requirements are met. Probably the most awkward of these is the need to process very large amounts of information. For example, to render a 20-kHz signal with a signal-to-noise ratio of 96 dB, a digital recorder must process a minimum of 40,000 16-bit numbers per second. Packing the 640,000 bits per second onto, say, a tape running at even 30 inches per second results in a very high density of information. As a point of comparison, the length of tape occupied by a single bit under these conditions would be smaller than the wavelength of a 200-kHz tone. Dropouts in the recording medium can, therefore, wreak havoc on a digital system.

Fortunately, information theory has shown a way around this problem: the inclusion of more bits than necessary to carry the information—redundant bits, if you will—so that if one is obliterated by a dropout, it can be replaced. It may seem at first that it is necessary to duplicate the entire program on a separate track (this would not really work well, since when the two tracks differ there is no ready indication of which is correct), but through careful study of probabilities it is possible to encode the bits in blocks in such a way that if a dropout affects no more than one block of a set, the erroneous digits can be identified. Since binary digits can only be 0's or 1's, the errors can be easily corrected once they are found—if 0 is wrong, 1 must be right, and vice versa. Of course, a really bad dropout can still stymie the system, but 3M, one of the companies now marketing a digital tape-recording system, asserts that typically in a thirty-minute selection the system finds no errors that are uncorrectable.

We have tacitly assumed that the recording medium is the sole source of errors, but this is not entirely true; the digital electronics, while generally more reliable than storage media, can also perturb data. The error-detection system will, within its limits, correct any data that have been “falsified” while in digital form. Adding this capability to those already described yields a recording system as good as or better than the signals that can be gotten from microphones—and, further, one in which all copies are functionally identical. The probability that, say, a tenth-generation dub would differ from the master on playback is so small as to be negligible. Within its designed dynamic range, the only way in which a digital recorder alters a signal is by filtering sharply above 20 kHz to remove frequency components that would otherwise cause distortion in the encoding process. This creates some phase shift in the audio band, but the ear, fortunately, does not seem to notice.

And as far as the ear is concerned, digital recording is very nearly perfect. There are some slight audible limitations, but to hear them you have to know where they are and listen very hard. It can be most unsettling to hear music emerge from a background of dead silence—no hiss, no rumble, nothing. And a demonstration of an airport environmental recording with a jet taking off is enough to send one scurrying for cover.

The most elaborate digital tape system on the market now is made by 3M Company for professional studio use. Developed jointly with the British Broadcasting Corporation, it records 32 tracks of 16-bit audio on 1-inch tape that runs at 45 ips. Samples are taken 50,000 times per second (a 50-kHz rate). Frequency response is tentatively specified as –2 dB at 20 Hz and –3 dB at 20 kHz, signal-to-noise ratio at better than 90 dB, and harmonic and intermodulation distortion at below 0.03%. With a companion mixdown machine (4 tracks on ¼-inch tape, with similar specifications), the 32-track recorder sells for under $150,000.

Mitsubishi's PCM (for pulse code modulation, a term the Japanese evidently prefer to digital) tape system is also intended for the professional market. It uses a 14-bit code and a sampling rate of 48 kHz. Rated frequency response is DC (0 Hz) to 20 kHz, ± ½ dB, with a dynamic range exceeding 85 dB and harmonic distortion below 0.1%. The system, which handles two channels of audio and could possibly reach the market late this year, is expected to sell for between $36,000 and $40,000.

The digital system developed by Dr. Thomas Stockham and his Soundstream Associates, Inc., is not expected to be available for another year or so, although the company does offer recording services on a contract basis. For analog-to-digital conversion through the tape and digital-to-analog decoding, the system uses 16 bits. The signal-to-noise ratio exceeds 90 dB (0.003%) unweighted without pre- or post-emphasis, and distortion is below 0.004%. In its present form the system can handle four audio channels, and it will soon be expanded to eight. Sampling rate is adjustable and can be set to give a signal bandwidth that exceeds 20 kHz. The target price is $50,000 for the four-channel version, $75,000 for eight.

Equally fascinating is Soundstream’s electronic editing system, implemented by a computer. The system makes detailed examinations of waveforms and is capable of making splices that are without abrupt transitions and completely undetectable. Since no tape is cut in the process, the various channels do not even have to be spliced at the same point—and in general are not. The splicing information is fed into the computer, which then assembles the “edited” tape as a copy, compiled according to the operator’s instructions.
While a good part of the digital thrust is in the area of high-priced professional hardware, the prospective consumer has not been forgotten—although he will certainly have a bit of a wait before he can lay hands on a system of his own. Since digital recording demands large-scale data-storage capacity, it seems natural that engineers have turned to existing and prospective home video systems, which have a similar requirement, as a jumping-off place. Mitsubishi, using the transport of a VHS video cassette recorder, has developed a PCM audio cassette system. Also tentatively slated for introduction late this year, this cassette recorder boasts a dynamic range of 80 dB and a frequency response within ±1 dB from DC to 20 kHz, with distortion less than 0.03%. It is expected to sell for about $2,000.

Sony has a PCM audio recorder that has been developed as an add-on to a Betamax video tape recorder. The device, currently being sold in Japan, is due for introduction in the U.S. sometime this year and will be priced in the $1,000 range. Said to be capable of recording and playing back two audio channels with a signal-to-noise ratio of 85 dB, the Sony system claims distortion of 0.03% maximum and a frequency response within ±1/2 dB from DC to 20 kHz.

But the mainstay of home music reproduction has always been the disc, so it is not surprising that the digital-audio engineers have moved into video disc technology, looking for an audio application. They have succeeded admirably, judging from prototype demonstrations by Mitsubishi and Teac (who worked jointly on the system) at last November's Audio Engineering Society convention in New York. The disc system (based on the Philips laser-readout video disc) has impressive specifications indeed: dynamic range better than 98 dB (compared with about 60 dB on the best conventional discs), total harmonic distortion and noise less than 0.1%, and frequency response within ±1/4 dB from 10 Hz to 20 kHz. Since nothing touches the information-bearing areas of the disc during playback and minor impediments (scratches, finger marks, dust) on the surface are bypassed by careful focus of the laser, the life of a digital disc should be very long. Target price for the player is roughly $800. Though single-sided, half-hour discs were demonstrated, double-sided discs with more than twice the capacity but no loss of quality are said to be in the works.

Introduction of the PCM disc is at least several years off, however. Since Philips is redesigning its laser system so that both sides of the disc may be used, new standards will have to be developed. This is complicated by the fact that the disc systems under development by other manufacturers are slightly different. (Sony and Hitachi are working on PCM discs—not to be confused with the discs of the same name made by Denon in the conventional way from PCM tapes.) Accumulating recorded software libraries will take time. Present master tapes (Denon, Soundstream, and a few experimenters aside) just don’t have the dynamic range and freedom from distortion that would justify releasing them in PCM form.

What does it all mean? It certainly does not mean that present disc-playing equipment is about to become obsolete. In fact the initial benefit of digital recording should—as Denon has demonstrated—be better discs for current players. The use of PCM in the studio makes possible master tapes that rival—and perhaps even surpass—direct-cut discs. It is true that much consumer equipment is inadequate to play discs with such dynamic range, but we suspect that their availability will spur further upgrading of the audio chain so that, when actual digital playback does arrive, the rest of the system will be ready to cope.

The PCM-equipment manufacturers themselves appear well prepared to cope. Building on the vast backlog of digital theory and experience that has come out of the data-processing and related high-technology industries, and taking as a springboard the professional audio community’s intense interest in digital techniques over the last few years, these manufacturers have produced their prototypes with apparent ease. There can be relatively few hidden pitfalls in a “new” field that is so widely understood. The momentum, the investment, and the technology needed to put digital audio products on the market are all available now. The premonitory hand has written on the wall—in binary digits.
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CIRCLE 52 ON READER-SERVICE CARD
In Defense of Antonio Vivaldi

An admirer takes up the critical cudgels for the baroque master, who gave music far more than “the same concerto four hundred times.”

When the first half of the eighteenth century, usually called the Era of Bach and Handel, began to open its side doors to an occasional visitor, it revealed recesses theretofore little known. As more light was admitted many of these recesses were seen to be sizable rooms, and by the first quarter of our century it had become permissible to refer to such of their inhabitants as Couperin and Rameau as “worthy” colleagues of the two giants of the High Baroque. The company of acknowledged great masters was not joined by the Venetian Antonio Vivaldi (c.1678-1741) until relatively recently, he having had no chronicler for almost two centuries. Nothing is known about his early creative activity and little about his numerous travels and residences, and after his name appeared for the last time on the registers of the Conservatorio dell’Ospedale della Pietà, May 12, 1740, all trace of him was lost. Only in 1938 was it discovered that he died in Vienna in July 1741.

How can we account for this oblivion? It is always difficult to account for a composer’s disappearance from the repertoire, and it is particularly difficult in Vivaldi’s case, since he was celebrated, admired, and very successful. His works were known all over Italy, from 1710 onward in Germany, and soon thereafter in France and England, and they began to be published in 1705. We know that various princes were trying to acquire his services and that he was personally acquainted with and highly praised by the Pope and by Emperor Charles VI, a musically cultivated Haps-
burg. Vivaldi concertized a great deal; his operas were performed all over Italy, San Angelo in Venice alone producing eighteen of them, and a successful Vivaldi opera could bail out a financially wobbly theater. His music was novel, bright, diamond hard, and unaffected by sentimentality, yet at the end of his life this priest/musician, known because of his red hair as the Red Priest, had become a rear-guard sentinel of the great baroque army soon to be overrun by the new forces of the rococo. He left Venice for Vienna, where he died destitute and forsaken. The potter’s field where he was buried has disappeared altogether, and his mortal remains consist of an entry in the registers of St. Stephen’s.

Vivaldi remained unknown until the discovery of Bach called attention to him, scholars stumbling upon the man whose works the great cantor copied and transcribed. But the true stature of the master was not fully realized until, in 1929, two large manuscript collections of his works—operas, concertos, sinfonias, and church music—constituting three-quarters of his oeuvre, were discovered in Turin. After World War II, with the rising interest in baroque music, Vivaldi became very popular, finally receiving adequate study in Marc Pincherle’s distinguished monograph (1948). Yet we still know very little about the life of this musician, who was one of the outstanding masters of the baroque era and whose influence reached every corner of the musical universe, affecting the present and preparing the future.

Ordained in 1703, he was appointed in the same year teacher of violin at the Pieta, one of the famous orphanage-conservatories for girls, subsequently adding to his duties those of conductor and resident composer. Though there were many lengthy interruptions, he remained connected with the Pietà until a year before his death. Like Handel, Vivaldi was an impresario, was a performing artist, staged his operas, and was adamant in enforcing his artistic wishes. According to his own testimony, he was afflicted from childhood with what appears to have been asthma, which repeatedly forced him to abandon singing the Mass because of seizures, for which reason he was given dispensation from the daily celebration of the Mass. This infirmity does not seem to accord with Vivaldi’s fantastic activity; he must have composed every waking hour, traveled a great deal, and spent endless hours rehearsing and producing his works.

Beginning in 1737 his situation began to change. It was Vivaldi’s habit in his travels to take along his prima donna, Anna Giraud, as well as some particularly gifted girls from the orphanage to reinforce the meager opera troupe of Brescia or Ferrara. Though operatic impresarios often traveled with their principal performers, Vivaldi was a priest, and tongues began wagging. The church authorities, long vexed with him because of his neglect of his priestly duties, did not like the stories bandied about, and finally Cardinal Ruffo of Ferrara, a prelate not as patient with artists as were most of his colleagues, peremptorily forbade the performance of Vivaldi’s works in his diocese. The gossip was partially true. The relationship with Giraud, who bore him several sons, was a fact, but to us this tender and loyal liaison (not at all unusual in those days and not concealed) is far more sympathetic than it appeared to the Cardinal. As to the girls of the Pietà, their reputation for impeccable morals is also an undisputed fact. An English traveler observed in 1720 that “men who seek to find a spouse without any experiences of the world went there to find one.” At any rate, this ecclesiastic prohibition was a blow; it hurt Vivaldi’s reputation and his livelihood—the decline begins. By 1739 he was seldom performed except in the Pietà, and apparently being in strained circumstances he sold a number of his works to the Pietà and left for Vienna. Unfortunately, the music-loving Emperor Charles VI died soon after his arrival, and he was stranded without any means in a strange city.

He who wants to investigate the life and work of this elusive musician will have to address himself to the city of the lagoons in the late-seventeenth and eighteenth centuries, politically battered and long past its heyday, but artistically still supreme in the radiant sunshine of the late baroque. Venice had an incredibly rich musical life. There were elaborate services in the churches, notably in St. Mark’s, and there were a dozen active opera houses and four renowned conservatories. Among resident composers the leaders were Legrenzi, Gasparini, and Lotti, proud and regal flowers of the fertile Italian garden. Besides the fabulous operatic activity, new departures in instrumental music were beginning to make themselves felt: Torelli and Albonini advanced the nascent solo concerto. Vivaldi, who started as a chamber music composer, was carried away by the new genre—we must remember that he was a virtuoso violinist. Johann Friedrich von Uffenbach, a wealthy, much traveled, and learned maecenas who is one of our best sources for musical life in the first half of the eighteenth century, describes his playing thus: “His fingers mounted so high on the fingerboard on all four strings that there was scarcely room left for the bow,” adding that the rapidity with which his fingers moved was “incredible.” There were also the younger masters of Venice: Benedetto Marcello, the solitary musician/litterateur; Veracini, later proclaimed the greatest violinist of his time; Tartini, composer of the “Devil’s Trill” sonata whose adventures matched his “diabolical” art; and others. Vivaldi knew them all and learned from them, yet he went his own way, for this man was a fiercely independent artist, more adventur-
ous, more enthusiastic, and more impetuous—even reckless—than his contemporaries.

Vivaldi was not of course the “inventor” of the concerto, but it was he who brought it to its maturity; by extending the solo part, demanding great virtuosity, and creating the dramatic confrontation between solo instrument and orchestra, he captivated musicians everywhere. His thematic invention was rich and pregnant, his rhythm alert and sharp, his counterpoint lively and effortless, and his harmony always interesting and often bold. And it was an explosive imagination, like a trigger setting off a propellant charge, as can be seen in many a concerto or in the opening of the great Gloria. I suppose that in today’s language we would call this splendidly exploding ritornels “aggressive.” Such themes have incredible kinetic energy: Not only do they want to run, but they rush—they cannot be contained. The motorlike propulsion, the sharp rhythms, the dogged repetition of basic patterns is what the twentieth century recaptured and, with curious imprecision, called neoclassicism.

Vivaldi shows an almost geometric concentration, always economical, but he can also be hallucinative, conjuring up sounds and colors hitherto unknown. At times his material is nondescript and static, at others it is incisive and constantly developing, while in still others it suddenly tightens into dramatic action. This music is gestic—dancelike even when it does not represent a specific dance genre. His orchestral sense, whether for a large orchestra or a simple four-part string body, was marvelous. Though Vivaldi is perhaps best known for his violin concertos, his ripieno concertos and sinfonias are equally remarkable, and in some of them one can see the anticipation of the cyclic form, the elements of all the movements being derived from the initial idea. We also see a good many innovations, such as the long rolling crescendo, formerly attributed to the Mannheim School, and Vivaldi should therefore be counted among the important pioneers of the subsequent classical style.

Since about thirty works, among them the popular Four Seasons, are program music, we might say that he was also the originator of the symphonic poem. To be sure, Vivaldi created and followed a pattern maintained even in the program concertos, a pattern so successful that everyone copied it, but there are also interludes of fantasy to decorate the pattern, and he could be architectonically loose and free. The relationship between solo and orchestra might be either thematically contrasting or identical; then again, the solo might be accompanied with ritornel motifs or continue on its own during the ritornels.

Most attractive is the combination of the solo concerto with the concerto grosso, a type that suggested the Brandenburg Concertos to Bach. The great variety of instruments for which Vivaldi wrote concertos and the high degree of virtuosity demanded for all of them testify to the uncommonly high standards at the Pietà, and indeed the girls’ orchestra was reckoned by competent observers as being among the best in the world. Vivaldi could experiment and try out his ideas, and he must have been stimulated by the fact that his young musicians, though better trained than most professionals, were unspoiled and enthusiastic.

His vocal music is no less original than his instrumental works. The instrumental composer indeed cannot be fully appreciated without the other half of his lifework, for the two areas were not separate worlds for him. He was a born dramatic composer who infused his purely instrumental works with the dramatic spirit straight out of his operas. Here we are still very much in the dark, because none of his operas was available until the Turin hoard was discovered, and none of them has as yet appeared in a modern printed edition. Vivaldi’s passion for opera was inevitable: He knew the works of the older generation of Scarlatti and Steffani intimately, and of course the many opera houses in Venice acquainted him with the entire span of the operatic literature. The connections between opera and concerto, aside from their shared dramatic tone, become immediately evident when we look at the stylistic ingredients: From the ritornel and motto aria came the ritornel form of the concerto; the lamento aria furnished the model for the slow movements; and the aria accompaniments proved to be equally congenial for accompanying a solo fiddle or oboe.

We know a little more about Vivaldi’s sacred music, fine, robust music, never heavy and seldom archaizing. The solo cantatas, like Psalm 126, Nisi Dominus, consist of arias and accompanied recitatives, the latter highly dramatic, even vehement, and tending to broaden into arioso. In these cantatas, he discloses a very personal lyricism and an attractive mixture of the pastoral with the darkly dramatic. Other works, such as the G minor Magnificat, are dominated by the chorus in full Vene-
tian splendor, an effect that can be breathtaking. Of the oratorios, *Juditha triumphans* is now recorded; the powerful work gives us a tantalizing glimpse of Vivaldi as opera composer. Unfortunately, fine as these vocal works are, they are little more than samples; much remains to be done to permit us a full perspective on his achievements.

While he is now firmly ensconced in the hierarchy of composers, Vivaldi's rank is not unchallenged. His critics were—and some still are—bewildered by what Pincherle called his "disconcerting fantasy," for he followed no methodical progress and was at any time ready to return to modes of composition used in his early youth. Among the severe critics who expressed very low opinions of this enigmatic master are such luminaries as Dallapiccola and Stravinsky; but then, composers are seldom good judges of their fellows, and they are rarely aware of the historical circumstances. The many concerts and religious celebrations, as well as the instruction at the Pieta, required a great deal of music, most of which was furnished by the resident maestro. The constant *pièces d'occasion* that the age called for demanded fast work; Vivaldi admitted that he composed one of his operas in five days—his copyist was unable to keep pace with him. His incredible facility also tempted him to do the kind of coasting that Richard Strauss called "musical push-up exercises."

Critics who fulminate not so much against the concertos carelessly slapped together from garlands of sequences as against the seeming uniformity of certain themes and procedures only show their unfamiliarity with stylistic history. Such resemblance in themes and motion patterns is not necessarily a sign of poverty of imagination; it may represent the unity of stylistic conception. Symphony, quartet, and sonata of the classic era also acquired the majority of their raw materials from the public domain; what counted was the utilization of the everyday material. Such enormous productivity as Vivaldi's inevitably resulted in not a few insignificant pieces full of aimless passage-work, but the masterworks dominate. Perhaps Bach's view of Vivaldi is more convincing than Dallapiccola's ("the same concerto 400 times") and Stravinsky's.

Vivaldi had a German pupil, Georg Johann Pisendel (1687–1755), a devoted disciple, friend, and ambassador of his teacher. Pisendel was the most illustrious German violinist of the Bach era, and when he assumed a leading position in the musical establishment at the Dresden court he inaugurated a veritable Vivaldi cult in the Saxon capital. When Bach visited there he took in this world of music, altogether new to him, with profound consequences for his future as composer. Recent research has shown that the vocal works caught his fancy, as well as the concertos, and there are Vivaldian echoes all the way to the B minor Mass.

If this tremendously prolific genius composed the same concerto 400 times, that one concerto changed the history of music. Shoots from the concerto were transplanted into practically all other genres, instrumental and vocal, where they took root and flourished. Vivaldi's concerto not only changed form, technique, and procedure in all branches of music, but greatly contributed to the development of thematic, formal, and harmonic thinking.

**Vivaldi: A Selective Discography**

We still know Vivaldi's artistic development only in its contours. Few of his works are dated, and neither opus numbers nor dates of publications are always indicative of the chronology of their creation, because of his habit of compiling anthologies including older and newer works. The first printed set of concertos, Op. 3 (1712), discloses considerable experience—even Vivaldi's opus primus does—so it must have been preceded by a good deal of creative activity. The practical solution to this dilemma is to deal with the works by categories, as I do here.

A particular difficulty is created by the numbering of Vivaldi's works. Though Marc Pincherle's thematic catalog is by general agreement the standard, there are later numberings. Mario Rinaldi's catalog is full of mistakes, yet it is used by some. Ricordi, the principal publisher of the Red Priest, uses a sequence of its own, and there are recent catalogs by Kolneder and Ryom, both distinguished scholars. Obviously confusion is rampant. This is hardly the place to attempt the making of a concordance with Pincherle; therefore I have converted K., R., and other numbers to P. only when I could readily identify them and have used opus numbers alone when they exist. Each reference to strings is intended to include the continuo.

**Chamber Music**

Seventy-odd sonatas of Vivaldi are known, and half of them have been published, though often manhandled by their "editors." The most commonly encountered sonatas are the six of Op. 13, *Il Pastor fido*. The Europe-wide attraction of the French instrumental suite plays...
“Marriner and the Academy of St. Martin-in-the-Fields have recorded unexceptionable performances of Op. 3. . . . This is a recording to cherish.”

Concertos for One or More ‘Violins

It was L’Estro armonico, the Op. 3 set of twelve concertos, that carried Vivaldi’s fame all over Europe. Musicians examined the new concerto form sprung from the initiatives of Torelli and Albinoni with fascination, for Vivaldi was striking out on a new path. He no longer used polyphony as a principle of shaping, though his handling of counterpoint is masterly; the solo part does not mechanically follow the ritornel, neither does it get lost in nonhematic figurations, yet it always brings something different and attractive; and there are the new dramatic accents and confrontations coming straight from opera.

It is quite obvious that Vivaldi was aware of the importance of this, his first printed collection of concertos, and carefully prepared it for the printer in 1712. Some of the individual numbers must be older, but he picked the really good ones. There are four groups of three concertos, each containing a solo concerto, one for four violins, and a concerto grosso. Those for four violins (Nos. 1, 4, 7, 10) offer delightful sonorities and colors and have slow movements of great beauty and intensity. Bach transcribed No. 10 for four harpsichords, but aside from the thickened texture (he overloaded the first clavier part with extra pianistic fretwork) their rattling seems almost monstrous compared to the sweet song of the violins in the original. The fine solo concertos (Nos. 3, 6, 9, 12) are all virtuosic but in a subdued way—Vivaldi never indulges in empty fireworks. Bach was especially fond of the spirited No. 9 and took pains not to mess it up in his transcription.

The remaining concertos are really concerti grossi, and they are superb, with robust allegros full of clan and color, and melting largos and adagios following one another. One of the greatest of Vivaldi’s instrumental compositions is No. 11, its sturdy fuge ending on a mighty pedal point. This work has a curious history. Friedemann Bach, who had a copy, sold it as his own work—as usual, he needed money—and it was not until 1910 that its real author was identified. In the meantime it became popular in an atrocious arrangement by August Stradal and was frequently banged out at solo piano recitals.

Neville Marriner and the Academy of St. Martin-in-the-Fields have recorded unexceptionable performances of the Op. 3 concertos for Argo (ZRG 733/4, two discs). Among the violin soloists Iona Brown gets the gold medal, but the others (Alan Loveday, Carmel Kaine, Roy Gillard, and Roland Thomas) are all very capable artists. Christopher Hogwood, who prepared the edition for the performance and furnished the excellent harpsichord continuo, did a very good job, though I think he should not have harmonized the stark unison parts. The Op. 4. The “extravagance” of the title does not refer to eccentricities or frivolity; the term originated with the mannerist composers in the seventeenth century whose bold harmonies provided the unexpected. Surely the beginning of No. 8 in this set, where a solo violin somewhat atonally tries to find its way to the D minor of the first ritornel, is in this sense still pretty “extravagant,” even to us. Note particularly the magnificent Largo in No. 1; the finale of No. 3, which is a modern scherzo; the Grave in No. 4, its ethereal sounds resembling the Lohengrin Prelude. No. 5 also has expressive solos, especially in the fine instrumental area that is the Largo.

No. 6 is a great concerto that did not escape the attention of Bach, who transcribed it for his own use. No. 7 is no less remarkable—the solo just grows out from the shimmering chords of the orchestra, while the second Largo is a gentle dialogue between flute and violin. No. 9

an important role, with three of the sonatas in the French chanteur style. (The title should have been Musique champêtre.) The other three, though still in dance rhythms, follow Vivaldi’s own ritornel construction.

These are not the best specimens of his art, though the violin sonata (No. 3) is good and the flute sonata (No. 4) pleasantly humorous. But the ones with the hurdy-gurdy—heard in their original scoring on Archiv 2533 117 (featuring flutist Hans-Martin Linde and violinist Eduard Melkus)—are musicological sideshows. The medieval hurdy-gurdy activated the strings by a wheel that was cranked to rub against them, while a sort of keyboard regulated the pitches. It became popular again in the eighteenth century with the ladies of the aristocracy. There is some good music in these sonatas, but whenever that ancient relic (which had bourdon strings) enters with its nasal, screechy sound one conjures up a bagpiper with loose dentures.

Still, the Archiv disc offers a rare chance to hear this memento from the past; besides, that wizard of instrumental color manages to coax some remarkable sonorities from the ensemble. The performers are all good, and Archiv deserves kudos for digging up a hurdy-gurdy (René Zosso).
is festive and has a dialogue Largo between solo and orchestra not unlike the Andante in Beethoven's Fourth Piano Concerto. The long-breathed ritornel in No. 10 dominates, but suddenly mood and pace change with a plaintive but warm violin aria; the stravaganze are supplied by ingenious play with the Neapolitan sixth. In No. 11 not even the usual relief between sections of tutti and solo is granted, and it runs and runs exuberantly with remarkable continuity; No. 12 would make even Paganini blink at the extreme virtuosity demanded.

Marriner and the St. Martin's Academy have also recorded Op. 4 (Argo ZRG 800/1, two discs), and both of the soloists (Kaine and Loveday) as well as the orchestra meet the demands brilliantly. One cannot help noticing how superior such a performance is in the hands of a distinguished all-around conductor and orchestra rather than in the care of "old music" specialists, even when they are as able as the conductorless Italian ensembles.

All but two of the twelve Op. 7 concertos are for solo violin. The two exceptions, Nos. 1 and 7, are for solo oboe, and, while both have fine slow movements, they are otherwise routine. The violin concertos, however, are great works. No. 2 shows subtle thematic connections between solo and orchestra, No. 3 has a soaring Grave. No. 4 has a bold dramatic finale. Nos. 5 and 6 boast attractively energetic ritornels, No. 8 was good enough for Bach to transcribe it, and No. 9 is among Vivaldi's best. No. 10 is light and elegant, almost galant. In No. 11 the solo rises to dizzying heights, and No. 12 demands.

Philips' recent recording of Op. 7 (6700 100, two discs) features an outstanding artist in oboist Heinz Holliger. Violinist Salvatore Accardo is nimble but a bit gypsyish in slow movements—he does not see the larger line. I Musici plays well, though its allargandos are excessive. (Op. 7 also has been recorded recently by the more romantic Solisti Veneti for Erato, available on Musical Heritage Society MHS 3567/8, two discs.)

The title of Op. 8, Il Cimento dell'armonia e dell'invenzione (The Contest Between Harmony and Invention), refers to the lofty aims of the composer, and indeed some of these concertos are Vivaldi's greatest and most popular. The first five of the set are program music: the celebrated Four Seasons and the "Sea Tempest."

The Seasons offers genre pictures, mood pieces, their tone set by little sonnets that precede each season. We hear in turn bird concertos, pastoral movements, dreamy slow introductions followed by brilliant allegros, village dances, the hunt, and always delicious color combinations. The remarkable aspect of these works is that they are fantasies rather than descriptive music, and Vivaldi never permits his lucid forms to be weakened. Only in No. 3 does the muse avenge itself for being imposed upon from without. This set is the first Seasons, a title which became popular all the way to Haydn.

"Tempest" is also a perennial topic that inspired sound patterns and motifs still used by the aged Verdi. It is not a remarkable work, nor is No. 10. "The Hunt," but the others are fine violin concertos. No. 9 is gently chromatic and No. 11 polyphonic, ending in a splendid fugue.

I Musici's recording of the complete Op. 8, recently reissued by Philips (6747 311, three discs), dates back to the days when Felix Ayo was the group's solo violinist. Soloists and orchestra are excellent, but the continuo is inadequate, causing harmonic holes. I also question the edition from which the set is performed.

Claudio Scimone and the Solisti Veneti (Musical Heritage MHS 1727/9, three discs) are heard to better advantage in Op. 8 than in other Vivaldi records I have heard, but Scimone still shows little sense for those minute tempo alterations that impart life to a piece, and his allargandos are dying pigeons. The violin soloist, Piero Toso, is fairly good, though his tone up in the heights is somewhat brittle.

A more attractive alternative is Pinchas Zukerman's Op. 8 with the English Chamber Orchestra (available only as three single discs, Columbia M 31798, 32693, and 32940). The playing is lusty and lively in tempo. Zukerman's multiple stops are remarkably clear and in perfect tune, and he negotiates the fastest runs with ease. Occasionally he presses a little, which sharpens his chromatic tones and the very high ones, and he does a bit of sliding; however there is no pussyfooting, his violin sings out, and the sound is excellent.

When we arrive at the rich and varied concertos of Op. 9, La Cetra, we might say that the future of the concerto has been settled. Vivaldi introduces the vehemence and the meditative calmness—even the special orchestration—of theater music, creating a blend in which the dramatic element becomes as important as the virtuosic. This blend stayed valid all the way to Bartók and Berg. Spohr, in his violin concerto Gesongs-scene (Sung Scena), went so far as to identify the violinist with the opera singer.

The first of the twelve in this set illustrates this development with the dramatic return of the first solo episode at the end of the opening movement; similarly, in the last movement the effect of the sudden changes in the solo while the first and second ripieno violins are engaged in a lively dialogue is purely dramatic. In No. 3, the contrast between the attractive long ritornel and the lyrical solo part is suspenseful, the dynamic subtleties carefully indicated by the composer. The slow movement is based on a chromatic ostinato, its noble solo melody akin in spirit to the corresponding movement in the fourth concerto. In No. 5 we again see the dramatic opposition of an insistent ripieno and a careful solo.

Nos. 6 and 12 demand the mistuning of the solo violin, which permits the performer to play unusual multiple stops and arpeggios. Vivaldi's inventive powers conjure up extraordinary effects in No. 12 especially, although both are very melodious. No. 7 mesmerizes with its orchestration. No. 8 is in somber D minor, and No. 9, a double concerto, is full of beguiling twists and turns. (Teachers of old-line theory will have to explain away the piquant seven-measure periods!) In No. 11, solo and ripieno share the thematic material, and Vivaldi builds up to a tricky finale.

Op. 9 has been recorded by Denis Stevens (a set issued on the Musical Heritage Society's Orpheus label OR 334/6, three discs), who displays an admirable concept of the style and, unlike most conductors, distinguishes one allegro tempo from another. He also has
good command of his instrumental forces, the orchestra of his Accademia Monteverdiana. Carl Pini, the principal soloist, is a good fiddler, though his violin does a little sobbing. A pleasant surprise is Harold Lester's excellent continuo playing. The sound is good but a little too forward and open.

Vivaldi's last concerto collections (he did continue composing individual concertos) were Opp. 11 and 12; henceforth—he was now past fifty—opera would be his main interest. In the meantime a younger generation of great virtuoso composers, notably Veracini and Tartini, had arrived on the scene, offering considerable competition.

Each of these sets has only six concertos instead of the usual twelve, because the dimensions have changed; the ritornels are more extended, and many contain two or more segments with contrasting thematic material. In Op. 12, No. 1, there are five long tuttis, and the solo sections are shorter. Though all of these concertos are well made, they are not of equal value. Of Op. 11, Nos. 1 and 2 are good but not significant; No. 2 is called "La Favorita," but it certainly would not be mine. Nos. 4 and 5 seem experimental, with some really wild passages, especially in the furious finale of No. 3. No. 5, however, is a very fine work, more introspective and more daring. So is No. 6, a rather personal composition.

The first concerto of Op. 12 has a melodious opening with beautifully varied ritornels, the second movement is darkly sweet. No. 2 is only fair; No. 3 opens with a symphonic Allegro, the Grave is like an operatic scene, and the finale robust and polyphonic. No. 4 is also a great concerto with an elegant style galant Largo and an intensively symphonic finale. No. 5 offers energetically stubborn ritornels and a highly virtuosic and ornamented solo part; unfortunately, the latter is supported in this performance only with a mournful cello—the rest of the continuo is nowhere present. No. 6 is again symphonic in tone (Vivaldi was certainly ahead of his time) with remarkably constructed compound ritornels.

The Philips set of Opp. 11 and 12 (6747 189, three discs) is of the same recent vintage as its Op. 7, and the performances are very good. I Musici is in grand form, taking the fast passages with gusto and accuracy. Accardo is a good fiddler but, again, is a bit sentimental, and his tone thins out in the higher regions.

Before leaving the violin concertos, I must mention some of the multiple-violin concertos outside the collections. Four works (P. 2 and 250 for two violins, P. 278 for three violins, P. 148 for four violins) have been recorded by Pinchas Zukerman and the English Chamber Orchestra for the Columbia (M 32230), and all four are splendid, with expansive ritornels and attractive contrasts between the massive tuttis and the nimble solos. The heavy ostinato theme of the Larghetto in P. 2 promises a chaconne, but Vivaldi surprises with ethereal passages for the solo instrument. P. 148 is a transcription from Op. 3, No. 10. Soloists and orchestra are outstanding, though the harpsichord hides somewhere. But where did Zukerman, a discerning modern artist, get the habit of taking a sizable pause before the last chord? That sort of thing is for college glee clubs.

**Concertos for Two Orchestras**

Though called concertos for two orchestras, the four works on Telefunken 6.41263 are interspersed with episodes for solo violin of concerto proportions. They were composed for St. Mark's, which had two choir lofts, hence the presence of two organs for the continuo. Obviously all four belong in the category of the concerto da chiesa. Vivaldi draws wondrous sounds from the antiphonal orchestras, to which flutes and recorders are added, and there are even organ solos. Some of these concertos have galant themes almost in the young Mozart's vein, then again No. 3, with Vivaldi in top form, exudes Handelian sturdiness. The Adagios are expressive, some of the finales jaunty. No. 4 is among Vivaldi's best.

The Telefunken soloists are good, though Lola Bobesco is better and warmer than Franco Fantini, and Angelo Ephrikan conducts the combined Solistes de Bruxelles and Solisti di Milano with élan. (The Telefunken performances are presumably the same as those on Seraphim S 60118.)

**Concertos for Cello**

The four works recorded by Christine Walevska and the Netherlands Chamber Orchestra under Kurt Redel on Philips 9500 144 are undoubtedly the first full-fledged concertos for cello, and Vivaldi immediately makes it hard work for the soloist. He must have had a soft spot for the instrument and conjures up gorgeous sonorities when he combines it with the orchestra's low registers or when all parties climb high. The slow movements in these attractive compositions sing, while the
Concertos for ‘Wind’ Instruments

The wind concertos were probably composed for individual girls of talent in the Pietà, whereas the violin concertos were mostly for Vivaldi’s own use. I Musici and guest soloists—flutist Severino Gazzelloni, oboist Leo Driehuys, and bassoonist Marco Costantini—offer an excellent assortment on Philips 6580 152: four solo concertos from the great Turin collection, showing considerable variety and demanding great virtuosity. (Those Venetian damsels must have been extraordinary musicians.) The bassoon concerto included is interesting because that instrument, which in more recent times came to be considered “the clown of the orchestra,” sings and does it nicely. There is a flute concerto that shows some almost Rimskian exoticism. The performances are excellent, the sound good.

Gazzelloni and Holliger have also recorded entire Vivaldi discs with I Musici. The composer’s numerous flute and piccolo concertos, which vary widely in quality, have received much attention on records; Jean-Pierre Rampal, for example, has gathered three discs’ worth of them in Columbia D3S 770, with Claudio Simone and the Solisti Veneti. Three of the five works on Gazzelloni’s disc (Philips 6500 707), P. 140, 203, and 205, are routine, but P. 80 has haunting ritornels and melting Neapolitan melodies; this is the romantic Vivaldi. P. 342, entitled “La Notte,” a reworking of Op. 10, No. 2, is a magnificent work, and (once given the clue) one palpably hears and feels the mysteries of the night. The performances are tops; the sound is excellent, the liner notes silly.

Some of the oboe concertos recorded by Holliger and I Musici (Philips 9500 044) exist in transcriptions for other instruments, though with Vivaldi one does not always know which is the original. However, these are good works full of lilt ing dance tunes and noble slow movements. Op. 11, No. 6, must have caused some surprise—it starts in the subdominant. Holliger’s fine solos are often unsupported, with not an audible peep out of the harpsichord.

Finally, Archiv has a bouquet of concertos for various wind instruments (2533 044) that is a feast for the ear: What colors and what fun from the combination of recorders, flutes, oboes, clarinets, bassoons, horns, with an occasional violin and cello solo! It is typical of Vivaldi that he instantly took to the clarinet and was already exploiting its beautiful soft tones though it had arrived on the scene barely a few years before. Melkus’ violin tone is a little thin (he is used to playing on antiques), though he is a fine musician, but the wind players are out of this world.

If I single out from this large cast bassoonist Rudolf Klepač and the two hornists Gustav Neudecker and Alois Spach, it is because I have never heard such fantastic virtuosity on these instruments. There is no antiquarianism in this release; everyone plays on the best obtainable modern instruments (the great Cremonese violin and cello have of course long since been altered to conform to changed conditions), hence the players are secure and the sound is full and round. I wish I could hear these horn players in the First Brandenburg, for they could cope with the forbidding density of that great piece. In fact, they could play the finale of the Mendelssohn violin concerto on their horns!

Hans Stadlmair is a conductor with impeccable taste and feeling for the style. He knows how to slow down at the end of a piece without letting things collapse, and he guides the excellent Munich Chamber Orchestra with precision. The good professional conductor again runs away with the prize. Don’t miss this disc; it will brighten any day.

Miscellaneous Concertos

Vivaldi was not much interested in keyboard music, but he did use the organ as solo instrument in some double of multiple concertos, four of which (P. 36, 226, 274, and 311) are extant; they have been recorded by Paul Kuentz and his chamber orchestra, with organist André Isoir and other soloists. These concertos are with rather than for organ, and three of them are negligible. But P. 226 presents Vivaldi at his imaginative best. There are two string orchestras, each with an organ and with flutes and recorders added, and there are some violin and
oboe solos. Vivaldi throws in the whole baroque musical arsenal, from unaccompanied violin to robust orchestral effects, instrumental recitatives, cadenzas, and so forth. A grand piece.

To most of us the guitar and the mandolin are usually connected with "light" music, but in Vivaldi's time the family of plucked instruments was widely used for serious music, both solo and orchestral. It was only natural that some of these instruments were given solo roles in the concerto. Vivaldi, always lovingly experimenting with new timbres, composed several concertos for mandolin.

Erato has devoted an entire disc to concertos with mandolin, performed by Bonifacio Bianchi and other soloists, with the Solisti Veneti conducted by Scimone (STU 70545, distributed by RCA; also available as Musical Heritage MHS 1100). Two of the works included, P. 133 and 134, sound like little more than studies (their material is nondescriptive), but the other two are of considerable interest.

P. 16, written during the composer's last year at the Pietà, is a fabulous work. It is composed for an ensemble of two each of flutes, clarinets, violins, theorboes, and mandolins, with the usual string orchestra supporting the whole. This extraordinary piece is like an early predecessor of Bartók's Concerto for Orchestra, pairs of instruments of the various categories being given episodes in turn, all of them then uniting in rousing tuttis.

Unfortunately the Erato performance of P. 16 is not good, and Scimone engages in exaggerated rubatos. Still, his rather dull performance must be preferred to the ready alternatives, both of which are doctored. Leonard Bernstein (Columbia MS 6131) uses the rescored by Alfredo Casella, a notorious meddler. Few composers can be trusted as editors of old music (with the exception of Brahms and Webern, no mean musicologists in their spare time), and today conductors are expected to recognize such versions for what they are.

One cannot substitute harps for lutes and trumpets for the tromba marina (which was a stringed instrument, despite its name) and simply omit the clarinets. Violinist John Corigliano plays in the best Mischa Elman style, and Bernstein is not a harpsichordist.

Paul Kuentz's DG recording of P. 16 (2530 211) offers far better mandolin playing, better ensemble, and much better sound than the Scimone/Erato, but Kuentz substitutes bassoons for the clarinets. Curiously enough, DG bills the concerto with a correct listing of the original instruments, but apparently someone thought that the specified salmò is a sort of musical dinosaur, now extinct. In fact it is an early clarinet (chalumeau), and the two clarinets called for cannot be replaced by bassoons without completely altering the aural picture; the bassoons gurgle where the clarinets would still articulate clearly. All the lute parts on this disc are played on the guitar, another regrettable substitution. Too bad, because all the soloists as well as the orchestra are first-class.

The Kuentz disc is valuable for P. 266, a very fine concerto for viola d’amore and lute (again played on the guitar). Particularly engaging are the delicate duets between the two solo instruments, both excellently played and recorded. This disc demonstrates what recording can do to save such old music, because this work would be lost in even a small concert hall. Sensitive microphone placement can catch the evanescent sound of these frail instruments and transmit them in believable sonic perspective.

The fourth work on the Erato mandolin disc, P. 368, is interesting for its use of baroque specialty: the scoratura (mistuned or untuned) violin—that is, one or more strings are tuned differently from the customary way (in this case the G string is raised by a minor third), creating new timbres as well as new technical difficulties.

Turning from Scimone's renditions to Herbert von Karajan's disc of six assorted concertos (DG 2530 094) is instructive. The earnest partisans of "historical authenticity" would of course disown Karajan because, instead of their preferred puny and pale ensembles, he uses a warm and vibrant string orchestra culled from the Berlin Philharmonic Orchestra—and how the genius of Vivaldi comes to life!

The Karajan disc includes two solo violin concertos and one double concerto from Vivaldi's top drawer. The first solo concerto, L’Amoroso (P. 246), is ingratiatingly gentle and pastoral; the second, L’Inquietudine (P. 208), is just the opposite—relentless, animated, full of garish harmonies and tense rhythms. The double concerto (P. 29), masterly in concept, especially when the two solos alternates in accompanying each other, might have been heard by Bach in Dresden. Violinists Thomas Brandis and Emil Maas are able professionals, but they sound a little distant, whereas the Berlin Philharmonic simply glows.

Remarkable as these works are, the three orchestral concertos take precedence here because they disclose an aspect of Vivaldi's art that is little known: the discarding of all mundane decoration. The Sinfonia in B minor, Al santo sepolcro (P. 21), opens with brooding, mysterious, shifting harmonies, the rending dissonances evoking Christ's burial, while the following Allegro is entirely polyphonic. Alla rustica (P. 143) is also a real orchestral piece, the first movement impetuous, the second a perfect foil for the rushing opening, and the third quietly pastoral. The D minor concerto entitled Maddrigalesco (P. 80) begins with a sepulchral Adagio; then Vivaldi gives us a lesson in freely flowing imitative counterpoint (hence the "maddrigalesco"), which also employs the most varied colors that can be evoked from a four-part string orchestra.

The orchestral playing is ravishing. It takes a great conductor to attain such superb balance. Just listen to the violas, and to the basses dancing in ballet slippers. The sound is also superb, but the two harpsichords listed are little in evidence.

Sacred and Dramatic Vocal Works

Vivaldi's Gloria, Kyrie, and Credo (independent compositions, not parts of a Mass) are conveniently gathered on RCA Gold Seal AGL 1-1340. The Gloria, composed for the marriage of Louis XV, opens with tremendous vitality but moves immediately into the dark, shifting tonalities of the "In terra pax"; the other sections reflect the grand choral style of Gabrieli's Venice. The Kyrie is contemplative, with evanescent and very modern harmonies, while the Credo has great melodic beauty. These works show Vivaldi at the peak of his powers and disclose a major vocal composer in an era that was rich in them. The Erato/RCA performances, by Michel Cori-
box and his lausanne vocal and instrumental forces, are excellent; the sound is good, the continuo poor.

Written on a larger scale is the cantata Beatus vir, which gives us the whole panorama of baroque music, from the splendors of the Venetian polychoral style to the virtuosity of the concerto. The nine numbers of this large cantata, interspersed with a little motto-ritornel, offer an admirable display of imagination and invention. The Orion recording (ORS 75208) of this memorable composition features an excellent soprano soloist (Priscilla Salgo), a good orchestra (that of the Carmel Bach Festival), and fine sound, but conductor Sandor Salgo is more conscientious than imaginative. Fortunately, this music won’t permit routine to stifle it, even when the continuo is weak. (A new recording is expected from Columbia, conducted by Jean-Claude Malgoire.)

Superb performances of the Gloria, Credo, and Beatus vir, with Ferenc Szekeres conducting the Budapest Madrigal Chorus and Ferenc Liszt Chamber Orchestra, are included on Hungaroton SLPX 11655 along with the little-known psalm setting Lauda Jerusalem. It is a sparkling baroque jewel, full of excitement, drama, and virtuosity, the antiphonal choruses and orchestras tossing the musical ideas back and forth. Here we have fine soloists (sopranos Maria Zempleni, Melinda Lugosi, and Katalin Szokefalvi Nagy and mezzo Klara Takacs) and ideal balance between voices and instruments, and the chorus, which is the glory of Lauda Jerusalem, is uncommonly well recorded. The only sour note: Hungaroton offers no printed texts.

Three fascinating vocal works are included among the “Five Compositions on Christ’s Passion” recorded by Ephrikian and the Solisti di Milano on Telefunken 6.41256. The Stabat Mater is a somber yet rich composition that does justice to the great medieval poem. The other two solo cantatas, both introduzione to the Missares, are also top-drawer; the accompanied recitatives are particularly stunning. The old liturgical plays were revived in the seventeenth and eighteenth centuries as quasi-oratorios; a particular variety was the sepolcro performed in church during Holy Week. Vivaldi wrote several orchestral preludes for these, two of them included here. The first one is admirable, the second is not. The orchestra plays well under Ephrikian, but alto Aafje Heynis is too tame for such high-tension music.

At that, Heynis is preferable to James Bowman, the alto soloist of Oiseau-Lyre’s coupling of the Stabat Mater and the psalm setting Nisi Dominus (DSLO 506, with Hogwood conducting the Academy of Ancient Music). Bowman is a good musician, but the countertenor voice, that English specialty notably lacking in color, warmth, and resonance, is wholly unsuited to this sensuous bel canto music. HNH Records has a good performance of Nisi Dominus, one of Vivaldi’s most deeply felt vocal works, with mezzo Teresa Berganza and the English Chamber Orchestra under Antonio Ros-Marba (HNH 4012): Much of the acerbic chromaticism, the searing dissonances, and the ineffable melodies comes across.

The balance of the HNH disc, which takes us into a quite different vein of Vivaldi’s vocal writing, is less successful. The motets—Invicti bellate and Largo male umbrae terrores—are really solo cantatas consisting of higher virtuosic concertalike fast movements, accompanied recitatives, and largo arias. They contain some good music, but on the whole are insignificant. Berganza flutters a bit, but then, these are unconscionably difficult pieces. Neither the conductor nor the soloist is flexible enough. Perhaps those motets would make a better impression if performed with more bravado.

On Hungaroton SLPX 11632 soprano Magda Kalmár displays phenomenal virtuosity in three other motets (again, really solo cantatas): Laudate pueri, In furore, and Nullo in mundo. Though some of the da capo arias have beautifully designed melodies, what intrigues the listener is the vocal display. In furore is a concerto pure and simple, except that it uses a soprano instead of a violin or flute. Conductor Frigyes Sándor is a good technician but a bit phlegmatic. The sound is excellent, but again Hungaroton has partly spoiled the result by failing to provide texts.

Vivaldi’s large-scale vocal works—the oratorios and operas—have yet to get much recorded attention. The major exception is the oratorio Juditha triumphans, which has been recorded several times, most notably by Philips (6747 173, three discs). Juditha, composed in 1716, is one of Vivaldi’s two Latin oratorios, the all-female cast indicating that it was intended for the Pietà. The combination of opera and concerto created new means of expression, such as arias with concertato instruments, and Vivaldi uses all of them with ingenuity and acoustic certainty. His fierce temperament creates a festive clangor in the opening and closing scenes, giving trumpets and drums a workout. In the concerted arias the violins dance around the voice, and the color combinations are extraordinary—one aria is accompanied by four large lutes, other with oboe and organ, or mandolin, and so forth. The work is filled with great music and strong dramatic accents, though the fact that not one male voice is heard may be a bit unsettling.

The Philips performance, featuring soprano Elly Ameling and mezzos Birgit Finnila, Julia Hamari, Ingeborg Springer, and Annelies Burmeister, is unexceptionable, and Vittorio Negri—conducting the Berlin Chamber Orchestra—hes closely to the original manuscript.

“Superb performances of the Gloria, Credo, and Beatus vir . . . are included along with Lauda Jerusalem, a sparkling baroque jewel.”
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EMI's young Russians. Last season the young Soviet conductor Yuri Temirkanov made a powerful impression in the U.S. both as a guest conductor and at the helm of his own touring Leningrad Symphony (that city's "other" orchestra). So we're pleased to note that EMI has penciled in two projects for him with the Royal Philharmonic: Rachmaninoff's Second Symphony and, with pianist Dmitri Alexiev (who was introduced to American collectors through an EMI-made Brahms disc reviewed last July), Prokofiev's Second and Third Piano Concertos.

Alexiev and Temirkanov are only two of the young Soviet artists whose international careers are now to be promoted actively through an agreement between EMI and the Soviet government's cultural export agency MK. The official announcement from Angel Records explains: "Initially, the plan has called for the recording of exceptionally gifted artists of the new generation—pianists, violinists, singers, and conductors—in recital and orchestral repertoire. Concert performances, radio, TV, and publicity campaigns are expected to be engineered by all classical divisions of the vast EMI complex in international support of the long-term project. All engagements by the participating artists outside the U.S.S.R. during the period of the contract are under EMI's exclusive direction and guidance."

Apparently "the new generation" will be interpreted to include not only newcomers such as pianist Andrei Gavrilov—who, at twenty-two, has already completed a Balakirev/Tchaikovsky/Ravel solo recital and a coupling of the Prokofiev First Concerto and the Ravel left-hand concerto (with the London Symphony under the twenty-two-year-old Simon Rattle)—but established artists such as mezzo Elena Obraztsova and violinists Vladimir Spivakov and Viktor Tretyakov.

Mehta in transition. His tenure as Los Angeles Philharmonic music director nearing an end, Zubin Mehta has been ringing out the old and ringing in the new in the recording studio. With his old orchestra he is completing a cycle of the Tchaikovsky symphonies for Decca/London, and last fall he made his first recording with the New York Philharmonic, which he takes over next season. Columbia took advantage of his single week of subscription concerts for 1977-78, in late September, to record the featured work, Stravinsky's Suite du printemps. The producer was Andrew Kazdin.

French operas. As further evidence of the mounting interest in the French operatic repertory, both on and off the beaten path, we offer the following three bits:

- As expected, Deutsche Grammophon has recorded a new Carmen based on last summer's Edinburgh Festival production, in which Teresa Berganza sang the title role for the first time. The conductor is Claudio Abbado, and the other principals on the recording are Ileana Cotrubas (Micaëla), Plácido Domingo (Don Jose), and Sherrill Milnes (Escamillo). The text used is apparently based on the Oester edition.
- In Paris, EMI has made the first recording in some fifteen years of Bizet's "other" opera, Les Pécheurs de perles (the last one was also made by EMI, and that was its second!), conducted by Georges Prêtre. The announced cast has Cotrubas as Leila and Alain Vanzo as Nadir, with Guillaume Sarabia and Roger Soyer as Zurga and Nourabad.
- Back in London, CBS has given Ambroise Thomas's Mignon a long-awaited stereo recording, with Antonio de Almeida conducting the New Philharmonia. Marilyn Horne sings the title role, joined by Vanzo as Wilhelm Meister, Ruth Welfing as Philine, and Frederica von Stade in the trouser role of the young nobleman Frédéric.

Maazel's Beethoven (and Puccini). And still they come, faster and furer: With Herbert von Karajan's long-awaited remake of the Beethoven symphonies greeted enthusiastically last month by Harris Goldsmith, and with Eugen Jochum's London Symphony cycle for EMI nearing completion, it's time to greet the next cyclist. Lorin Maazel. Maazel and the Cleveland Orchestra have begun work on a cycle for Columbia, produced by Paul Myers (who produced George Szell's Cleveland cycle). The Third, Fourth, and Fifth have already been recorded, as has the Egmont Overture. Also on Maazel's CBS schedule is another Puccini project to follow the Tritico. Renata Scotto is to reerord the title role in Madama Butterfly, with Plácido Domingo as Pinkerton and Ingvar Wixell as Sharpless.

Karajan cycles. Speaking of Karajan's Beethoven symphonies, the conductor is in the process of completing two other cycles, both for EMI (and both, of course, with the Berlin Philharmonic): the much-delayed Beethoven piano concertos with Alexis Weissenberg and the Schubert symphonies (begun auspiciously with the Unfinished reviewed in October).

Brass Pictures. Argo's new Pictures at an Exhibition is definitely not just another recording. As most readers know, the familiar Ravel orchestration is only one of many arrangements that have been made from Mussorgsky's solo-piano original, but there can't have been many like Philip Jones's new one. It's for his own Philip Jones Brass Ensemble, and he explains—perhaps unnecessarily—that he intended it to sound as different as possible from the Ravel orchestration. The Argo coupling is another work tailored to the virtuoso ensemble, Raymond Premru's Divertimento.

EMI in Philadelphia. It should not be thought from the above that the Ravel orchestration of Pictures is in danger of disappearing. Indeed, it turns up among EMI's first projects with the Philadelphia Orchestra: Riccardo Muti was scheduled to record it last month (coupled with Stravinsky's Firebird Suite), along with the Beethoven Seventh Symphony and Leonore Overture No. 3. EMI's first Philadelphia session was held last October in the Scottish Rites Cathedral, with music director Eugene Ormandy conducting Hindemith's Symphonic Metamorphoses on Themes by Weber; Ormandy was to complete that disc at the February sessions with the same composer's Concert Music for Strings and Brass.

EMI plans further sessions for April and November.

Ohlsson's Chopin. Garrick Ohlsson continues to forge his way through the piano works of Chopin. Readers will recall that the young American began his EMI recording career some five years ago with the polonaises, followed in succession by the scherzos and the preludes. (Later he added the concertos, with the Polish Radio Symphony under Jerzy Maksymiuk.) After a spell of Liszt, Ohlsson has returned to Chopin. Next up: the nocturnes, scheduled for December 1977 tapping.
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A Happy Quandary over Donizetti’s Elixir

Columbia’s Covent Garden-based L’Elisir d’amore complicates the choice for lovers of Donizetti’s ebullient and moving comedy.

by Dale Harris

No doubt, listening to six different performances of Donizetti’s L’Elisir in a row (Columbia’s new recording, indeed, more than once) will strike some people—particularly those who do not share my weakness for early nineteenth-century Italian opera—as a dreadful chore. Especially since not all of those recordings are by any means first-rate. Nevertheless, I can only call the experience exhilarating. That a comedy at once so heady, elegant, and warmly human should exist at all is cause for gratitude. That it should have come into existence in a matter of two weeks is cause for astonishment. Melody in the spring of 1832 must simply have tumbled out of the composer’s brain in a fever of creativity: several exquisite cavatinas, a march, a patter song for the bass, a barcarolle for the latter and the heroine that quickly became one of the hit tunes of the age, and, best of all, a smoothly flowing romance for the tenor that remains to this day a touchstone of melodic distinction. From its pastoral opening to its ebullient finale, featuring a reprise of the barcarolle, L’Elisir is inexhaustibly delightful.

Given the infectious good spirits of the opera, it is only fitting that not a single one of the available recordings is without merit. Even the old Cetra set, its original, reasonably clear sound so debased by Everest as to make you wonder if your equipment has suddenly collapsed, is well worth hearing. Somewhere beneath the aural murk it is possible to discern a first-rate Dulcamara in Sesto Bruscantini, firmly sung and ripely characterized, and some interesting vocalizing by the unjustly half-forgotten Cesare Valletti as Nemorino.

The late-Fifties La Scala/Seraphim set under Tulio Serafin also has its points—principally Luigi Alva, who contributes some charming vocal acting as Nemorino, and Giuseppe Taddei, a Dulcamara to match those of Bruscantini and Fernando Corena, the latter in the mid-Fifties Maggio Musicale Fiorentino set recently reissued on London Treasury. That first London recording, well conducted by Francesco Molinari-Pradelli, doubtless still makes an appeal to fans of Giuseppe di Stefano, whose Nemorino, despite some passages of full and ardent tone, I never...
theless find unengaging. Furthermore, neither the breathy and precarioussounding Belcore of Renato Capecchi nor Hilde Gueden's too proficient Adina, with its excessively white tonal production, is an abiding joy. The 1967 Angel performance, less well conducted by Molinari-Pradelli, offers a finely characterized Adina in Mirella Freni (her actual singing on this occasion being somewhat labored) and a splendid Dulcamara from Capecchi, much more at home here than in the role of Belcore.

But the real competition is between the full-priced London set and the latest entrant. London's assets are several: an uncut, even amplified, score; a thoroughly idiomatic musical conception from conductor Richard Bonynge, who leads a performance that admirably combines liveliness and charm; a beguiling Nemorino from Luciano Pavarotti, well characterized and beautifully sung; and some glorious vocalizing from Joan Sutherland, who though on the whole too melancholy an Adina is technically awesome, especially in the aria "Nel dolce incanto," which is to be found in no other recording. Unfortunately, both the Belcore (Dominic Cossa) and the Dulcamara (Spiro Malas) are little more than adequate.

The new recording, based—though the accompanying booklet says nothing about the matter—on a highly successful Covent Garden production, is a model of teamwork. That is, the singers not only act, but interact. Oddly enough Placido Domingo, the only cast member who did not appear in that stage production, is just as warmly responsive to his colleagues as they to him, and his portrayal of Nemorino is for me the highlight of the set: a lovable, awkward, painfully shy country lad, temporarily emboldened by a bottle of claret or, as he imagines it to be, the elixir of love.

In the series of contrasting duets—with Adina, Belcore, and Dulcamara—that constitute the main portion of this role, Domingo is at his very best: warm-voiced, impulsive, vivid. For his performance alone the recording is indispensable. It's a pity, though, like the otherwise satisfactory chorus, a little too English in Italian pronunciation.

Nevertheless, because of Domingo's share in the proceedings I would not be without this set. Nor, for the reasons adduced above, would I be without the London set. This is a case where two recordings are necessary.

**DONIZETTI: L'Elisir d'amore.**

Point is it wonderfully well sung, the lower range being weak, the middle breathy and unfocused, and the top squeezed, especially in Act II, where she also relies a good deal on aspirates to help her along.

On-stage Geraint Evans, a fine actor, is possibly a capital Dulcamara. On records he sounds too unspontaneous and fussy to be convincing. There is little of the lovable old rogue about this performance. Vocally rough (though less so than Capecchi), Sir Geraint is also lacking when it comes to the correct enunciation of the Italian text, a particularly important matter in a role that makes so much use of patter numbers and comic repartee: His vowels are far too approximate, and his consonants far too forward and explosive.

Ingvar Wixell is a very successful Belcore, a role whose martial swagger finds a most convincing embodiment in this singer's quick vibrato and eager delivery. Lilian Watson is an adequate Gianetta, though, like the otherwise satisfactory chorus, a little too English in Italian pronunciation.

Conductor John Pritchard is full of animation. I would not say that in his hands the score sparkles and glows, nor that he is elegant enough, but there is no denying his enthusiasm and energy. The recording is spacious. The production tends to be self-conscious, the chorus giving vent to "oohs," "ahs," and "ohs" at every turn in the story. In England what is presumably the same performance has been issued on two, rather than three, discs; Sides 5 and 6 of the version available here last 14:55 and 17:04 minutes, respectively—short rations, indeed.

Nevertheless, because of Domingo's share in the proceedings I would not be without this set. Nor, for the reasons adduced above, would I be without the London set. This is a case where two recordings are necessary.
Five Views of Sibelius

Worthy recordings by Stokowski, Kord, Karajan, Davis, and Previn give evidence of the upturn in the composer's fortunes.

by Abram Chipman

Karajan's first recording of Tapiola, Sibelius' great tribute to the northerly forests, filled out his Angel mono Fourth Symphony with the Philharmonia, and that performance remains stunning in its purity of conception and suavity and elegance of orchestral sheen. The Berlin Philharmonic/DG recording, however, is a mess: loud and shapeless in climaxes, hazy and indistinct in the strings' gamboling nymphs at G, sluggish in the woodwinds' timing of eighth notes and rests (not short enough to capture the subtle syncopations). The new performance is magnificent. Everything is articulated with impeccable precision and delicacy. The Berlin woodwinds are noteworthy for sauciness and finesse, the brasses for both power and restraint. I could quibble that Karajan's opening is not slow enough in relation to what follows, but he does clearly differentiate allegro and allegro moderato.

Karajan's new Finlandia is also a considerable improvement over the DG version, avoiding the latter's bathos. The Angel En Sago is his first on records, and I'm delighted with its brashness, vitality, and constant drive. The performance captures the music's essential swirling delirium, though at least in the Angel edition the recording balance could be kinder to timpani and trombones; compare the versions of Dorati (EMI ASD 2486) and De Sabata (London Treasury RS 62022). Karajan's DG Swan I found admirably straightforward, and the new one is even purer in sound and more mobile in flow: a sense of gentle resignation hangs over the interpretation.

Tapiola can also be heard on the concluding disc in Davis' Boston Symphony cycle of the Sibelius...
symphonies for Philips, along with the Fourth Symphony—a coupling of Sibelius' greatest works in a dark and grimly tragic vein. (The Davis Sibelius records, incidentally, have now been boxed as Philips 6709 011, five discs for the price of four: the set includes a Swan of Tuonela that has not been previously released.)

As it happens, this is the only disc in Davis' Sibelius series about which I have major reservations, and my recommendation for this coupling remains Lorin Maazel's London disc (CS 6592)—ironically the strongly released.)

includes a Swan of Tuonela that has not been previ-
ously released.)

records, incidentally, have now been boxed as Phil-

sian's Second Symphony with the Pittsburgh Sym-

harmo. The orchestra has reason to be proud of its new home, Heinz Hall, in which both the Sibelius and the simultaneously released Goldmark/Sarasate disc with Itzhak Perlman [reviewed separately in this issue] were made. The acoustical ambience is focused, clear, and less echoey than that of the sites in which the orchestra previously recorded.

The performance too shows the solid good health of the orchestra under its new music director. The woodwinds play with more character and charm than I remember from the Steinberg era, and the brasses are full and dark—note the clarity and vigor of the horns in the closing pages. Previn takes a dignified and unhysterical view of the symphony, and this pays off in the opening movement, which, along with the interconnected scherzo and finale, has no major flaws of note.

What nudges this rendition out of the very top class—i.e., Szell (Philips 835 306), Davis (Philips 9500 141), Monteux (London Treasury STS 15098), and Barbirolli with the Royal Philharmonic (Quintessence PMC 7008)—is the slow movement. The pizzicato beginning is awkward at points of transition between cellos and double basses. (Ideally one shouldn't be able to tell without a score when the switches come.) Ensemble falters shortly after E, conspicuously so between G and H. I don't hear enough of a slowdown at the poco largamente four bars after H, and I would prefer more forward motion when the andante sustenuto tempo returns at K.

These would be minor flaws if the recorded com-

petition were less fierce, and the Previn/Pittsburgh/ EMI association has begun without embarrassment. I wish it many happier returns.


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*The Hartford Times*
The symphonies themselves prove to be of March dress achievement—balances between Arne's accomplishments, although it's good to be able to re-present jacket notes (to which of course I'm indebted for this background information). The reputation of Thomas Arne (1710-78) long has rested on his once immensely popular music for the theater, especially the masque-finale song that achieved independent existence: "Rule, Britannia." But the recent Oiseau-Lyre recordings of the eight overtures published in 1781 gave us a stimulating taste of his sheerly instrumental skills at a "barococo" stage of his artistic development. Now we get the long-forgotten set of four New Overtures or Symphonies in D. Bournemouth Sinfonietta, No. 3, in E flat; No. 4, in C minor. WESLEY: ARNE: Symphonies: No. 1, in C; No. 2, in F; No. 3, in E flat, No. 4, in C minor.

The electrifying vitality of these astonishing Arne and Wesley resurrection is further intensified both by the authoritative crisp and emphatic performances led by Kenneth Montgomery and by notably open, robust, and vivid EMI recording.

Kipnis' already acclaimed partita series began in retrograde fashion with the so-called Seventh Partita, the French Overture, S. 831 (S 36087, October 1977). With the present release, that leaves only Nos. 5 and 6 to come. Nos. 3 and 4 are particularly welcome, partly because they are not currently available outside the complete sets, but mainly because they both are musical charmers with which Kipnis is obviously highly empathetic. No. 4 is especially striking for its combination of and contrasts between Bach's proudly ceremonial and zestfully good-humored styles. Kipnis responds warmly to both, bringing appropriately

ARNE: Symphonies: No. 1, in C; No. 2, in F; No. 3, in E flat, No. 4, in C minor. WESLEY: Symphony in D. Bournemouth Sinfonietta, Kenneth Montgomery, cond. [Suvi Raj Grubb, prod.] HNH RECORDS 4041. $7.98.

For all his later fame as a composer of oratorios and church music, Samuel Wesley (the younger of the two musical nephews of the British reference works until they were displaced by Arne and his "concurrent" rival Boyce, whose revered fame was also first sparked by the discovery of a set (eight in his case) of little "symphonies." Arne's examples also are imaginatively written and scored, in distinctively individual ways, often with the dramatic intensity commanded only by a true master of theater music, occasionally with impressive nobility, always—in the livelier moments—with exhilaratingly infectious zest.

In addition to all this, the disc boasts another, in some ways even more striking and valuable discovery: one of the five symphonies written by Samuel Wesley (1766-1837) when he was still in his teens. Its manuscript score, dated February 6, 1784, was never published but remained buried in the British Museum's files until recently unearthed and edited by John Toll. For all his later fame as a composer of organ and church music, Samuel Wesley (the younger of the two musical nephews of the founder of the Wesleyan Methodist Church) never really lived up to the extraordinary promise of his child-prodigy beginnings. How truly extraordinary that promise was is impressively brought home in this arresting powerfully, patently magisterial Symphony in D, a work that well might be credited to a young Haydn, or even Beethoven.

The electrifying vitality of these astonishing Arne and Wesley resurrections is further intensified both by the authoritative crisp and emphatic performances led by Kenneth Montgomery and by notably open, robust, and vivid EMI recording. R.D.D.
grand gestures to the big declamatory passages, keen wit and grace to the lighter ones. Except perhaps for a slight tendency to press in the opening Fantasia of B. 827 and to exploit a bit too tumultuously (in the Gigue finale of B. 828) the power resources of his big Rukowski and Robinette harpsichord, Kipnis, as both interpreter and executant, is at his best here.

As in the earlier releases, he is ideally backed by vividly realistic audio engineering (by Carson C. Taylor) and highly readable as well as informative jacket notes (by Judith Robison, who is Mrs. Igor Kipnis).

R.D.D.


Sergiu Luca's luminous set of the Bach unaccompanied sonatas and partitas is billed as the first complete recording with the restored violin and the baroque bow. As in the earlier releases, he is ideally backed by vividly realistic audio engineering (by Carson C. Taylor) and highly readable as well as informative jacket notes (by Judith Robison, who is Mrs. Igor Kipnis).
BARTÔK: Quartets for Strings (6). Guarneri [Peter Oeltermann, prod.] RCA RED SEAL, 3 discs, $23.98 (three discs, automatic sequence)

Although the Bartók string quartets have been blessed with recorded performances of an unusually high standard, the Guarneri Quartet’s new set can assume a comfortable position among its predecessors. Perhaps the Guarneri’s strongest point is balance. All of these readings evidence an unusually well-matched ensemble, with each of the four players subordinating himself to the larger cooperative venture. Thus, although specific details do not always stand out as distinctly as they might, the total effect is impressive: well thought-out and clearly projected.

I am particularly struck by the Guarneri’s ability to sustain the flow of long slow movements, such as the ones that close the Second and Sixth Quartets. In the latter, for example, the individual voices in Bartók’s thickly spun contrapuntal texture are always audible, yet never detract from the more sustained motion that encompasses them and defines the shape of the movement as a whole. Tempos tend to be relatively flexible. This is often effective, as in the subtle rubato rendering of the trio of No. 5. Occasionally it leads to inconsistencies: the subject of the fugal section in the last movement of No. 1, for instance, is played with considerable freedom on its first statement, but this character can no longer be maintained when the music then develops greater textural complexity.

Compared with the best of the other available Bartók sets, the Juilliard’s Columbia version, the Guarneri meets the competition only partially. Its most successful readings—those of Nos. 3 and 5—hold up very well, but this high quality is not maintained consistently throughout the set. Elsewhere there are a few ensemble inaccuracies, as in the unclear execution of the opening figure of the second movement of No. 2. Also, some of the tempos seem problematic to me. The opening of No. 1 is a bit rushed, while the last movement is sluggish and rhythmically square, as is the March of No. 6.

Nevertheless, the overall accomplishment is high, and taken as a whole this set offers an always interesting and usually convincing rendering of these seminal works. Bartók biographer Halsey Stevens supplies informative and authoritative notes. The sound is good, though not as full as it might be.

R.P.M.

BLOCH: Sacred Service. Douglas Lawrence, baritone, Abner Bergman, speaker; Utah Chorale, Utah Symphony Orchestra, Maurice Abravanel, cond. [George Spohrhalt, prod.] ANGEL, S 37305, $7.98 (SO-encoded disc).

Despite the substantial Jewish contribution, creative and re-creative, to Western music, a combination of socio-economic, theological, and aesthetic factors has limited to a handful the number of specifically liturgical Jewish works, among which Bloch’s Avodath Hukodesh (Sacred Service) 1900–33 stands pre- eminent. It is true that Reuben Rinder, the San Francisco cantor who commissioned this work, also got Darius Milhaud to compose his 1947 Sabbath Morning Service (available on Westminster Gold WGS 8281), but the later work doesn’t quite approach the passion and pageantry of Bloch’s song—for instance, mentioning the contemporary Swedish composer/critic Moses Pergament’s A Jewish Song—on Caprice CAP 2003, two discs—a fascinating and disturbing score that is not, however, a liturgical work; it is an oratorio set to secular poems.

Bloch’s Sacred Service has, I believe, been recorded only three times (once in each decade of the LP), and the three recordings go their own ways in matters of text and engineering. The composer’s London mono performance is the only one done entirely in English; the Broude Brothers recording departs from the text fairly radically by considerably augmenting the rabbi’s part (which is spoken over the music and so can simply be speeded up) and even having a choir chant the Kaddish (prayer for the dead). Bloch’s recording, moreover, miked both the cantor and the rabbi quite closely, so that they exist on a separate plane from the chorus and orchestra. Bernstein’s cantor (Robert Merrill) is spatially contiguous with the other musical forces, but the rabbi (Juda Kahn) bursts through in an awesomely frightening acoustical ambience of his own.

Angel has made reasonable decisions on both of these matters. There is some extra text from the rabbi (Ahner Bergman), but at least he does not excessively divert attention from the music. He pauses during the Schoelomo quote in the orchestra at No. 65
Needle in the hi-fi haystack

Even we were astounded at how difficult it is to find an adequate other-brand replacement stylus for a Shure cartridge. We recently purchased 241 random stylus that were not manufactured by Shure, but were being sold as replacements for our cartridges. Only ONE of these 241 stylus could pass the basic production line performance tests that ALL genuine Shure stylus must pass. But don't simply accept what we say here. Send for the documented test results we've compiled for you in data booklet # AL548. Insists on a genuine Shure stylus so that your cartridge will retain its original performance capability—and at the same time protect your records.

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of the fifth movement, and, best of all, he is recorded in about the same perspective as the other performing forces. Thus identifiable for the first time the listener is in the congregation, with the “action” on the pulpit at some remove.

Both Abravanel and Bernstein go for the big, brooding line, in contrast to the composer's more taut and urgent direction. While I find Bernstein more crisp on crystalline in the ritmico passages of the first movement (beginning with the words “michiko mecho”), Abravanel is nearly as good and pacés the animato of the second movement splendidly. The Utah forces generally handle lyrical moments better than the competition. The divided solo violins at No. 15 of the first movement play with lush plangency. The winds at the beginning of the third movement are dreamily sensitive. After No. 79 in the finale, the chorus should enter ppp (molto misterioso), and the effect comes off better on Angel than ever before.

Between the cantors of the earlier recordings I prefer London's vocally steadier and more eloquent Marko Rothmuller to Columbia's Merrill. Angel's Douglas Lawrence is close to ideal, bringing special ecstasy and sadness to his fervent singing (cf. the closing pages of the first movement). The brief solo soprano and alto parts, angelically sung on London, are not quite as distinguished on either Columbia or Angel, but none of the choral groups has a significant edge over the others.

I have already praised Angel's skill in handling overall balances that applies to smaller details as well (an overall spotlighted celesta excepted). The pressing is good, and a text is provided—though only in English. That, however, is the only jarring note in this intelligently conceived and executed production of a landmark work. A.C.


While it is easy to grouse about the editing jobs professional composers such as Rimsky-Korsakov and Glazunov did on the works of their semiprofessional colleagues Mussorgsky and Borodin—a changed instrument here, a modified harmony there—it is nonetheless sobering to realize that two of the works contained in this most welcome set, the unfinished Third Symphony and the Prince Igor Overture, would not exist today had it not been for Glazunov, who was able, following Borodin's death in 1887, to write down the symphony's first movement and the entire overture from memory, having heard his friend play them on the piano. He was also able to construct the Third Symphony's second-movement scherzo, following suggestions remembered from the composer, from an 1882 scherzo for string quartet and a discarded episode from the unfinished opera Prince Igor (which Glazunov and Rimsky-Korsakov took it upon themselves to complete).

At any rate, many of Borodin's finest moments are contained in this two-disc album. The symphonies abound, with great consistency, in marvelously attractive characterizations—indeed, with the composer's style: long, serpentine melodies with unpredictable contours; vigorous rhythmic motives, such as those found in the First and Second Symphonies' opening movements; choral themes whose harmonic configurations change with almost every forward step in the orchestration, whether in the dramatic brass dominating the opening of the Second Symphony or in the simple harp and clarinet duet at the beginning of that work's third movement. Rhythmically, the symphonies continually avoid the foursquare in favor of a strongly Slavic asymmetry that enriches all other elements of the music. This can easily be heard in the 3/4-4/4 trio of the First Symphony's scherzo or in the 5/8 meter that makes the beginning of the Third's scherzo sound like a clockwork ballet gone askew. But this asymmetry appears throughout the works in many subtler ways as well, so that the listener often feels a tension between a particular thematic contour and the basic meter of a given section.

The famous "Polovetsian Dances" that close Act II of Prince Igor represent the more brilliant side of Borodin's style. Although basically Russian in style, the dances often have a mild Oriental flavor, justified by the Eastern origins of the Polovetsian army that holds Prince Igor captive. This recording, besides offering the overture, also includes the prelude "Dance of the Polovetsian Maidens," separated in the opera from the final dances by several arias. Furthermore, the dances are heard as they are in the opera, which is to say with their choral parts, omitted in most separate recordings.

On the basis of repertory alone I would consider this album indispensable, but the fine performances and excellent sonics cannot be overlooked. Andrew Davis particularly rises to the occasion in the Prince Igor music, striking a nice balance between straightforwardness and thematic-milking in the lyrical sections, and bringing out every ounce of the drama in the more dynamic parts. In the symphonies, he offers lucid, well-paced interpretations that highlight their lovely melodies. Were he a pianist, I would say that Davis plays a bit too much on top of the keys, for there is a certain lack of depth, a certain coldness, that keeps his renditions just this side of extra-ordinary vitality. Furthermore, the Toronto Symphony's string section seems a bit smallish for the Borodin sound. But this is a minor reservation, and these performances can be considered among the best that have been recorded.

Producer Andrew Kazdin has once again provided sound that perfectly combines clarity, concert hall ambience, and depth. I do wish the presence obtained by higher recording levels in the Prince Igor selections could have been attained in the symphonies as well (especially the Second), but they suffer only slightly in this regard.

R.S.B.
I fact:

stylus mass is meaningless
...unless you measure it in motion.

The groove-wall force needed to vibrate a stylus can't be determined by weighing the stylus—it needs a *dynamic* measurement!

### The Misconception:

Contrary to some well-publicized claims, the mass of a stylus, the effective mass of a stylus, and the force needed to vibrate the stylus, are not the same thing. Stylus mass is meaningless as an indicator of performance. The effective mass is only one of several factors which determine the performance at high frequencies. The measured *trackability* is the "bottom line" specification when you're talking about accurate reproduction and minimized record wear.

### The Measurements:

<table>
<thead>
<tr>
<th>Cartridge/stylus</th>
<th>Stylus Mass (mg)</th>
<th>Effective Mass (mg)</th>
</tr>
</thead>
<tbody>
<tr>
<td>V15 Type III</td>
<td>9.3</td>
<td>0.33</td>
</tr>
<tr>
<td>Cartridge &quot;A&quot;</td>
<td>5.3</td>
<td>0.56</td>
</tr>
<tr>
<td>Cartridge &quot;B&quot;</td>
<td>11.2</td>
<td>0.58</td>
</tr>
<tr>
<td>Cartridge &quot;C&quot;</td>
<td>4.88</td>
<td>0.747</td>
</tr>
</tbody>
</table>

Even though one stylus may have a greater mass than another, the equivalent mass of the first stylus may be lower than the second. The above chart demonstrates what we mean. It compares the stylus mass and the effective mass of four popular cartridges, all tested in the same tone arm. It shows no correspondence between the effective mass and the stylus mass.

### The Physics:

Imagine two children balanced on a teeter-totter. If they're seated close to the pivot, a third person can easily raise and lower the end of the teeter-totter. But if the children move out to the very ends of the teeter-totter, moving them up and down requires much more effort and muscle. The mass of the system has not changed one bit. When the children are seated at the ends of the teeter-totter, the effective mass and the mechanical impedance of the whole moving system are higher. For a stylus and record, a lower effective mass has a lower mechanical impedance and more easily follows the motions in a record groove. So, a stylus with a lower mechanical impedance has higher trackability.

### The Proof:

Repetition Rate Distortion curves (distortion caused by mistracking) for Shure V15 Type III, and three other low stationary mass styli (A, B, and C, as in the chart at left.)

You can readily see that four styli produce different trackability distortion curves because the mechanical impedances are different. Low effective mass is an important ingredient of high frequency performance, but it must be properly combined with other factors to yield optimum performance. No cartridge has higher trackability than the Shure V15 Type III—and, of the cartridges shown here, none has a lower effective mass! The proof is in the playing.

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Comparison: Ochipr, Szell/Cleveland

GOLDMARK: Concerto for Violin and Orchestra, in A minor, Op. 28
SARASATE: Zigeunerweisen, Op. 20, No. 1

There have been many distinguished recordings of the Brahms violin concerto, from Fritz Kreisler's first recording of it (made with Leo Blech and the Berlin State Opera Orchestra in 1926) through Nathan Milstein's third (DG 2530 592, with Eugen Jochum and the Vienna Philharmonic, re-reviewed in May 1976), but this one by Itzhak Perlman and Carlo Maria Giulini easily takes its place among the best of them. Conceptually theirs is an extremely broad, majestic interpretation much along the rugged lines of the Angel recording by David Oistrakh and George Szell, but, as in the later performance, the phrases flow so resolutely, and structural points are made with such economical firmness, that the overall result sounds rhythmic and logical, never merely slow. While many prefer a swifter, more nervously tensile kind of Brahms, the broader, heavier-gaited approach—when infused with such luscious lyricism—strikes me as particularly right for this work.

On first hearing, however, I did have reservations. It seemed to me that, although this is a great performance and Perlman unquestionably one of the world's great violinists, a slight lack of nuance and color in the solo playing kept this reading just short of the inspired authority of the Oistrakh/Szell. But just before my review deadline, I was able to borrow a copy of the German Electrola edition and was fascinated by the comparison. The American edition is quite good,—strong, clean-sounding, and forwardly balanced, better than the majority of Angel releases—but the imported disc is subtly better in just about every way, and my reservations about the performance simply vanished. The German disc sounds purer, more luminous, more vibrantly natural, and yet also more brilliant. A color flickers and hovers over the violin tone, making detail upon detail of Perlman's playing gratefully stand out. Although Karajan is often accused of a certain hard-edgedness in his interpretation, this recording has him playing with such incisiveness of Heifetz' recordings.

Some listeners will be less put off by Maazel's alternately spiky and blandly euphonious German Requiem bears a superficial resemblance to Karajan's equal refined but subtly more communicative readings. Although Karajan is often accused of pursuing technical refinement at the expense of communication, it seems to me that, like Maazel, he has a talent for capturing this music's basic honesty, his account, by no means unworthy, is rather finicky, self-consciously unflawing even gimmicky.

Perhaps the artists themselves sought to protest, since the mastering insidiously changes the impression made by their playing, indirectly affecting reviews (and, possibly, record sales).

In discussing the reissue of Milstein's account of the Goldmark A minor Concerto with Harry Blech and the Philharmonia (October 1975), I likened that underrated work to Dvorak's A minor Concerto. The broader tempo, the slight, more expansive nature of the new recording by Perlman and Andre Previn also evokes the Elgar concerto, particularly in the second movement, which here sounds strikingly similar. While there certainly should be room in the catalog for two good recordings of this once popular work, and while Perlman and Previn do present such extreme engineering, to my taste every advantage lies with Milstein and Blech, who provide that extra little "something": more bite in the fiddle tone and greater elegance with just as much lyricism (although it is more constrained). The fine-sounding transfer of the Milstein/Blech performance is entirely competitive with the new recording (at least in its Angel edition, which is all I have heard), and it has a considerable economic edge: not only Schapham's budget price, but the accommodation of the Goldmark concerto on a single disc with Milstein's intense Beethoven Romances as a substantial bonus. Perlman's Goldmark spills over onto Side 2, leaving room only for Sarasate's Zigeunerweisen, which is excellently played but lacking in the slashing incisiveness of Heifetz recordings.
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My recommendation for the German Requiem remains split between Karajan's DG recording (2707 018—crisper and cleaner in sound than the latest Angel version, SB 3838, and with a more appealingly fluent line soloist in Gundula Janowitz) and Klemperer's very dissimilar outlook (in the British EMI edition, SLS 821, which not only sounds better than the Angel, but includes Klemperer's superbly gruff Tragic Overture and Alto Rhapsody, the latter with Christa Ludwig the attractive soloist).

H.G.

**BRUCKNER:** Symphony No. 9, in D minor (ed. Nowak). Chicago Symphony Orchestra, Carlo Maria Giulini, cond. [Christopher Bishop, prod.] Angel S 37287, $7.98 (SO-encoded disc).

Giulini's only previous Bruckner recording—the Second Symphony with the Vienna Symphony (EMI ASD 3146)—was interpretatively fitful and tentative, textually problematic in using the Herbeck/Nowak cuts. His Ninth is an altogether different story.

I have never heard the first movement depicted with such flawless structural command, so that it sounds forth in all of its grandeur, mystery, and humanity. Not a detail is out of place, and Giulini has even done what most conductors—even the most esteemed Brucknerians—fail to do: perceptibly distinguish Bruckner's long-slower (slower) markings from the basic moderato.

The scherzo is ideal in its stern and relentless deliberation, at which pulse the scrupulously observed allegretto-dancelike Bewegung first occurring at bar 147 makes emotional and structural sense; my only complaint is in the closing pages of the trio, where Giulini passes over a slowdown. The closing Adagio is sustained with the utmost in philosophical resignation and tenderness, but the required outbursts of apocalyptic passion only place the infinite calm of the piece in deeper relief.

The Chicago Symphony sounds like the ideal Bruckner orchestra. Horns are majestically full; winds are tinted in every shade new and unknown in this reading, and the strings are warm, dark, and athletic. The orchestra played well for Barenboim in his Bruckner Ninth (DG 2530 639), with its more forward and vivid sonics, but here it pours forth in all its perfections and capabilities, and the strings are warm, dark, and athletic.

If you own the mono-era Van Heijenoort or Furtwängler Ninths, or the stereo-era Mehta (London CS 4612), Haitink (Philips 835 381), or Barenboim, you needn't dump it in the trash barrel. But if you're in the market for a first (or an updated) recording, Giulini's is my unqualified recommendation. A.C.

**DONIZETTI:** L'Elisir d'amore. For a feature review, see page 85.


Karel's growing antipathy to internal tempo changes expressed in connection with his recent Beethoven symphony cycle (DG 2749 172, February 1978), is in evidence in this more Romantic music too. His 1959 Angel New World reflected an overrefined Germanic approach with a few annoying eccentricities; note, for instance, the high-handed hacking of the movement introduction and the perfumed ritard for the flute theme. By the time of his 1964 DG recording Karajan had modified his approach to something reasonably straightforward, but the playing still seemed just a trifle overrefined.

In the latest reading, he keeps a bit of expansiveness and cultivates a rather darker tone than on the DG disc, but he has come remarkably close to the superb Toscanini recording in some important ways: The aforementioned flute theme is now taken at something close to the basic tempo, and the strings and winds are tinted in every shade new and unknown in this reading, and the strings are warm, dark, and athletic.

If you own the mono-era Van Heijenoort or Furtwängler Ninths, or the stereo-era Mehta (London CS 4612), Haitink (Philips 835 381), or Barenboim, you needn't dump it in the trash barrel. But if you're in the market for a first (or an updated) recording, Giulini's is my unqualified recommendation. A.C.


Completed in August of 1912—and thus lying between the Second Symphony and the Pastoral music—Elgar's The Music Makers is a substantial work of the sort that must have been popular with the choruses of the day. It is a piece of considerable grandeur and beauty, but, sadly, the music has been hung on a text of quite meager literary value.

To start with, Arthur O'Shaughnessy's poem is based on that ludicrous notion of the artist (in this case, the musician) as the "acknowledged legislator" of the world, and the naivety of its idea is hardly concealed by the appalling doggerel in which it is expounded. (Sample: "With wonderful deathless ditties/We build up the world's great cities.") Anyone who enjoys Elgar's music will find much to savor here—the orchestral introduction is a marvelous evocation of the "lonely sea-breakers," and the


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work as a whole is full of those great surges of melody that Elgar could manipulate so powerfully—but, at least for me, the music is best appreciated without the text. Hubert Parry's Blest Pair of Sirens, composed twenty-five years earlier, has the potent advantage of a superb text—Milton's At a Solemn Musick—and it is set with consummate mastery of melody, harmony, and counterpoint. The general musical character of Parry's piece has much in common with Elgar's, of course, but by being much shorter its impact is more concentrated, and its subtleties of word-painting are more obvious. While I'm not sure that Blest Pair of Sirens is (as Vaughan Williams used to assert) the greatest piece of English choral music written since the death of Purcell, there is no denying the very real distinction of its marriage of words and music—the subject, after all, of the poem.

The present record has been licensed to Vanguard by EMI, which originally issued it in England in 1967. The performances are quite as fine as one would expect from such noted Elgarians as these, and, aside from a somewhat shaky start, Dame Janet Baker makes a particularly imposing contribution in The Music Makers. The sonic perspective seems a bit shallow and the sound is sometimes slightly constricted, but otherwise the recording wears its age well—and the bass drum is most impressive.

GOLDMARK: Concerto for Violin and Orchestra—See Brahms: Concerto.

HANDEL: Concertos. Heinz Holliger, oboe∗; Kenneth Sillito, violin; English Chamber Orchestra, Raymond Leppard, cond. Philips 6500 240, $8.98.

Concertos for Oboe, Strings, and Continuo∗. No. 1, in B flat; No. 2, in B flat; No. 3, in G minor. Concerto Grosso in G, Op. 3, No. 3 ∗; Sonata in B flat ∗.

Has anyone ever better exploited the oboe's piercingly poignant or perkily pastoral timbre potentials than Handel? Even at the height of his matured powers, he could look back with rueful pride to his youth in Halle when "I could write like the devil...especially for my favorite instrument, the oboe." And can any of the finest oboists of today play Handel's oboe parts more deftly or with more infectious relish than Heinz Holliger? I, for one, doubt it, so I'm delighted to acclaim the inexcusably belated American release of this program, which first appeared abroad six years ago.

Whether or not you're as susceptible to Holliger's magic as I am (one persnickety British reviewer found his present improvised ornamentations too richly rhapsodic!), you'll find that his only serious competition in the Handel oboe-concerto discography is that of the period-instrument versions by Schaefflein and Har}
partly as a demonstration—in the flowing opening Andante—of Handel's expansion of a melody used earlier in his second oboe concerto. Holliger's own grace is scarcely matched by Raymond Leppard's spirited yet sometimes heavy-handed English Chamber Orchestra, but the warmly open and vivid recording shows no sign of age. And quite apart from the inexhaustibly delectable musical attractions, this release is likely to be treasured by the soloist's fans for its disarming candid jacket-cover photograph of him as less an international celebrity than a young Swiss ex-farmboy turned bespectacled schoolmaster. R.D.D.

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**HOLST:** Fugal Overture—See Bax: November Woods

**JOPLIN:** Piano Works. James Levine, piano. [Peter Dellheim, prod.] RCA RED SEAL ARL 1-2243. $7.96. Tape: • ARK 1-2243, $7.95; • ARS 1-2243, $7.95.

Paragon Rag, Maple Leaf Rag, Weeping Willow, Scott Joplin's New Rag, The Cascades; The Chrysanthemum, Elite Syncopations; Pine-Apple Rag; The Entertainer; Sugar Cane, The Easy Winners, Original Rags.

Levine takes to heart Joplin's often quoted yet often ignored admonitions against playing his music too fast; his performances are admirably straightforward rhythmically and unhurried. They are also, thanks to his rather unvaried touch and the clattery piano sound, somewhat monochromatic and even monotonous—his music is more diverse in texture and feeling than it sounds here. Even rhythmically Levine is more correct than lively: Rythmic animation involves more than banging forties and leaning on syncopations. Joshua Rifkin has shown on his three Nonesuch Joplin discs that the "straightforward" approach doesn't preclude imagination and tonal luster, but Levine is at least in the ballpark interpretively.

The liner note dwells on Levine's fanat-

Like most pioneers, Joseph Lanner (1801-43) suffered the fate of having his lively fame enjoyed during his own lifetime first matched and eventually almost completely eclipsed by his successors. Even more than his colleague and later competitor, Johann Strauss I, Lanner must be credited with the creation of the Viennese waltz (actually, of course, a linked chain of waltzes) as an art form. And to this day there remains a minority of faithful cognoscenti who firmly believe that, at least in romantic lyricism, neither of the Strausses could surpass him. The present jacket annotator, Andrew Levine, often goes his own way dynamically and texturally; but hard to square with the fidelity fetishism of Lanner's magnificent motet Omnes de Saba venient; the sonorities in his performance of Lasso's magnificent motet Omnes de Saba venient are hair-raising, and his reading of the splendidiferous Tui sunt coeli is no less superb. But the major portion of this disc is devoted to an apparently misguided effort to make Lasso's Penitential Psalms into a more unified musical experience than they were ever intended to be. The psalm settings, products of the composer's youth (not, as one might expect, of his old age), appeal to us partly through the bitter poignancy of the texts and partly through Lasso's ability to find the precise musical equivalent of their immediate sentiments. The psalms themselves are long (the fifth, which is recorded here, has thirty-one verses) and sprawling. Lasso treats each verse individually so that it is complete in itself; the entire psalm then has a form something like a fine head necklace. This is a difficult image to sustain aurally over a long period of time, and Preston has chosen instead to treat the psalm symmetrically with long dynamic swells ebbing and flowing over several small motets at a time, à la Michael Howard in his Tallis/Byrd Cantiones of some years ago.

Simon Preston is a young romantic choral conductor who clearly knows and loves the repertoire of the late-sixteenth-century masters. He can achieve brilliant effects from a choir; the sonorities in his performance of Lasso's magnificent motet Omnes de Saba venient are hair-raising, and his reading of the splendidiferous Tui sunt coeli is no less superb. But the major portion of this disc is devoted to an apparently misguided effort to make Lasso's Penitential Psalms into a more unified musical experience than they were ever intended to be. The psalm settings, products of the composer's youth (not, as one might expect, of his old age), appeal to us partly through the bitter poignancy of the texts and partly through Lasso's ability to find the precise musical equivalent of their immediate sentiments. The psalms themselves are long (the fifth, which is recorded here, has thirty-one verses) and sprawling. Lasso treats each verse individually so that it is complete in itself; the entire psalm then has a form something like a fine head necklace. This is a difficult image to sustain aurally over a long period of time, and Preston has chosen instead to treat the psalm symmetrically with long dynamic swells ebbing and flowing over several small motets at a time, à la Michael Howard in his Tallis/Byrd Cantiones of some years ago.

I do not know what historical evidence

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— Donal Henahan, New York Times

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— David Moran, Boston Phoenix

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there is, if any, for this kind of interpretation, but the result sounds forced, in this instance at least. Paradoxically, I enjoyed this recording more than I did the ascetic performance of Bruno Turner's Pro Cantione Antiqua on Archiv, and I look forward to hearing more from Preston, especially in works whose scope and depth will legitimately challenge his abilities. S.T.S.

**Mahler:** Symphonies: No. 5, in C sharp minor; No. 10, in F sharp: Adagio. Los Angeles Philharmonic Orchestra, Zubin Mehta, cond. [Ray Minshull, prod.] London CSA 2248, $15.96 (two discs, automatic sequence). Tape: CSAS 2248, $15.95.

There are certain details of the intricate Fifth Symphony in which Mehta's new recording is superb, and there is throughout an unmistakable sense that the conductor is involved with the grand theatrical surge and stress of the work. Yet many common failings afflict this rendition. The three main pulses of the first movement—funereal, halting, and wild—are not clearly differentiated; the Viennese rubato in the scherzo is awkwardly exaggerated; several places in the Adagietto aren't posey enough; and in the finale the gruzioso passage at bar 100 is clumsy and the strategically placed climactic pesante six bars after No. 33 is anticipated with an unmarked ritard at No. 32. The latter, while very common, is one of the prime examples of the importance, not only of playing what Mahler wrote, but of not playing what he didn't write. Conductors continue to stumble into these traps.

There are also problems in the orchestral execution, although the Los Angeles Philharmonic would almost be adequate for this music were the Decca/London engineers less ruthless about exposing it and were there fewer excellent competitive recordings (with more on the way).

The Adagio of the Tenth Symphony here sings its proud and poignantly moving heartbreak and dissolution effectively, but any并将 who has accepted the wisdom, even the necessity, of performing a realization of the complete five-movement work will find this movement alone a frustrating morsel. A.C.

**Mendelssohn:** St. Paul, Op. 36. Helen Donath, soprano; Hanna Schwarz, mezzo; Werner Hollweg, tenor; Dietrich Fischer-Dieskau, tenor; Dietrich Fischer-Dieskau, soprano; Hanna Schwarz, mezzo; Werner Hollweg, baritone. Dusseldorf Symphony Orchestra, Rafael Frühbeck de Burgos, cond. [Helmut Storrharn, prod.] Angel SC 3738, $15.96 (two discs, automatic sequence). Tape: ASCS 2248, $15.95.

The recorded sound strikes me as less diffident than is done in this recording. As in his Elijah (Angel SC 3738, July 1969), Frühbeck de Burgos has a fondness for underplaying dynamics; long stretches of choral writing that are marked forte come out mezzo-forte or even mezzo-piano, and the concluding tempo of No. 36 (the cantus firmus piece already mentioned) is only one of several that are a few notches slower than Mendelssohn's metronome indicators. This tends further to devitalize the work, to make it more pastoral and less dramatic.

The soloists are an acceptable lot, with Fischer-Dieskau bringing unusual imagination to bear on his arias: he's in fairly good voice, and the best thing in the recording. Werner Hollweg's vibrato seems uncomfortably loose in his aria ("'Ie thou faithful unto death"), but elsewhere he is competent, as is the bright-voiced Helen Donath. Chorus and orchestra are not major-league, but their work is generally clean and assured (the orchestra pieces have an occasional tendency to come unstuck)

I've referred to the various pieces by the English titles under which they are more familiar—if at all—but of course this recording is sung in the original German. Angel's libretto replaces the standard old King-James-derived translation with excerpts from the New English Bible, which sounds like a good idea but isn't: Instead of the English equivalent of what Mendelssohn set, we are given a modern scholar's translation of the Greek sources from which Mendelssohn's text was also (but often differently) translated. Thus, where the German says simply, "He blasphemeth God," the New English Bible gives, "He utters the name of the Lord." On the other hand, we are deprived of that lovely circumlocution (plucked up from King James' translation) of the lame man of Lystra: "And there was a man at Lystra, impotent in his feet..." which sets the mind to speculating on curious feisheisms in the ancient Near East.

The recorded sound strikes me as less diffident than in Frühbeck's Elijah, without being ideally clear: from what I have observed of Angel mastering in recent years.
serious admirers of St. Paul might well keep an eye out for European pressings (none have turned up in these parts as of this writing).

D.H.

**MORERAN:** Sinfonietta—See Bax: November Woods.


The magnificent light and dark of the Spanish baroque and the insights and obscurities of its mystic vision are foreshadowed in the music of Cristóbal de Morales, whose combination of polyphonic mastery and Iberian passion gave a unique color to Spanish music in the first half of the sixteenth century. Compare the somber hues of his desolate lament of Jacob on this disc with the radiant color in the exuberant celebration of Andrew the apostle, Andreas Christi tumulus, and one is reminded of the great canvases of Ribera and Zurbaran.

Unfortunately the text and tradition of the Magnificat offered no such scope to Morales. Despite Turner’s attempts to enliven it with a variety of instrumental and vocal color, Morales’ setting remains arid and perfunctory. If Turner felt he needed a large work, it is a pity he did not choose one of the Masses, especially since there are none currently in the catalog. The motets, however, are worth the price of the record. Both the Jubilate Deo and Pastores, dicite are splendid pieces, while Emendemus in melius, a dramatic presentation of entreaty and menace, has justly been called one of the greatest works in music history.

In keeping with Morales’ essentially romantic vision, the performance by the virtuoso vocal ensemble Pro Cantione Antiqua is appropriately Mahleresque. The richness of the sonorities and the voluptuous rise and fall of the dynamic levels are in perfect harmony with the complex emotional and musical content of the motets.

The sound engineering, too, is properly spacious. Alas, in all this sonorous splendor the words vanish almost completely, and the texts and notes that accompany the disc are a positive necessity.

S.T.S.

**PARRY:** Blest Pair of Sirens—See Elgar: The Music Makers.

**RACHMANINOFF:** Concerto for Piano and Orchestra, No. 4, in G minor, Op. 40; Rhapsody on a Theme of Paganini, Op. 43. Tamás Vásáry, piano, London Symphony Orchestra, Yuri Aranovich, cond. [Cord Garben, prod.] DEUTSCHE GRAMMOPHON 2530 905, $8.98. Tape 2530 905, $8.98.

The last installment of Vásáry’s Rachmaninoff cycle (the Third Concerto, DG 2530 859, was reviewed last month: the First and Sec-
ond Concertos, 2530 717. in June 1977) is in most ways the best.

The Fourth Concerto, the least popular and most temperamentally remote of Rachmaninoff’s five works for piano and orchestra, gets off to a fine start with Vasary’s big, striding tone set against an unusually clear backdrop of orchestral woodwinds. Throughout the concerto, the sharp, clear textures spotlit detail without losing overall context and drew attention to the (for Rachmaninoff) modernistic acerbity of the scoring. At the same time, this is not a bleakly “objective” version in the style of Michelangeli’s distinguished recording (Angel S 35567), for in his tense, elegantly patrician way, Vasary colors the filigree and scintillates with a large dynamic range.

The same brilliant palette also proves a tremendous asset in the less austere Pogonini Rhapsody. The Vasary/Aranovich treatment is perhaps more scherzolike than most in its harcizing animation, but there are enough exceptions to keep the results from sounding either frivolous or hectic. The famous eighteenth variation, for instance, is even broader than on the old Rubinstein/Susskind 78s. Aranovich obtains the same brilliance from the London Symphony that he did in the earlier concertos, but, though his leadership never quite qualifies “spontaneous,” the phrasing and rubatos are decidedly less pulled-out here. H.C.

RACHMANINOFF: Songs—See Recitals and Miscellany, N. Koshtetz.


Comparisons—Rachmaninoff
Svechnikov: U.S.S.R. Russian Church
Mel / Ang. SBRR 1274
MHS 1021/5

No two recordings deal in quite the same way with the approximately sixty-five minutes of music Rachmaninoff composed for the vespers service. Indeed, the three-disc Musical Heritage edition is not really directly competitive with the others, since it adds to Rachmaninoff’s music nearly an hour’s worth of liturgical service. The voluptuously beautiful and authentic Melodiya performance was spread by Angel over two full-priced discs (in England, HMV fit it onto a single disc), while Philips offers Wyn Morris’ account on three sides, with an attractive filler. Turnabout has the music on one budget-priced disc, but its performance is sung in English.

The Philips solution strikes me as ideal, and the Morris set has a sonic edge too. The Melodiya/Angel sound is not in itself particularly atmospheric (that is left to the performance), and the MHS’s set sounds dry and studio-like. The Angel recording has evoked an open, cathedral-like spaciousness that will strike many as just the sound for this venerable Russian church music. And the performance is a good one—more expansive than the others, yet not lacking in dramatic surge and stress. Still, one returns inevitably to the Angel album for sustained urgency and freshness. The Soviet basses also remain unparalleled for their awesome management of the low B flat at the end of No. 5: the Philips and MHS forces by comparison seem just to slither down into a void. Morris’ solos are quite adequate, though MHS, unidentifiable alto has a more throbbingly rich voice and Melodiya/Angel’s tenor, Konstantin Ognevni, is memorably heartrending.

Philips filler is a group of four motets by Alexander Dmitrievich Kastalsky (1856-1929), who for some years directed the Synodal Choir of Moscow, for which Rachmaninoff wrote his Vespers. Kastalsky was dedicated to the integration of the various elements that went into a cappella Russian church music: the medieval znamenny chant and Russian folksong. These motets show how well he succeeded; they are nearly as evocative in their own right as Rachmaninoff’s setting.

The Turnabout Vespers, finally, proves no bargain. Even those listeners willing to sacrifice the idiom quality of the Russian original for the comprehensibility of an English translation are badly served here. The distant and blurry pickup (in Los Angeles’ St Sophia Greek Orthodox cathedral) renders the English text wholly inapplicable. The performance seems lacking in both involvement and linear control, with the chords’ intonation going constantly awry. The other recordings are all to be preferred in their various ways. A.C.

Ravel: L’Heure espagnole

Conception

Suzanne Danco (s) Michel Hamel (t) André Vessieres (bs)

Orchestre de la Suisse Romande. Ernest Ansermet, cond. LONDON TREASURY R 23249. $3.96 (mono) (from LONDON LL 796. 1953).

The conspicuous absentee at the 1975 Ravel centenary festivities was L’Heure espagnole, the witty one-act opera that was his first stage work (finished in 1909, though not performed until 1911). Let alone making a new recording, nobody even thought to reissue one of the first five earlier versions languishing in the archives. But now, perhaps stimulated by the work’s return to the New York City Opera repertory, London has brought back the Ansermet version, one of three quite capable recordings issued in 1953 (the other two were led by Cluytens on Angel and Leibowitz on Vox). They were preceded—in 1929—by a Columbia recording led by Georges Truc, and followed in 1956 by Lorin Maazel’s DG disc, which, if memory serves, made very little capital of Ravel’s potential for making vivid the action.

I haven’t heard any of these recordings since they were new (and the Truc never at all), but I am prepared to affirm that the Ansermet is quite a good job. The orchestra is rather distant by modern standards, but clearly registered; they play with great expertise, and Ansermet is genially vigorous, as was not always his wont in later years—all those cliches about Swiss watchmakers come to mind, but the Spanish rhythms are rather daintily articulated.

What is more: the singing is clearly well within the French tradition, a circumstance that might be hard to duplicate today. Suzanne Danco, as the frustrated Concepcion, sings so sweetly, accurately, and musically that one is reluctant to find her a shabby pallid—but pallid she is when she reaches the crucial invitation to the shy Ramiro to come upstairs “sans,horloge”: one doesn’t want a leer here, but a little implication wouldn’t hurt. As the vigorous but naïve Ramiro, Heinz Rehfuss is just about perfect: the voice solid and firm enough to convince as the hefty young muleteer, strong enough to carry a clock with a man inside it. (He’s Swiss, not German, and his French is as good as the rest of the cast’s.) As the two men who inhabit the clocks, Paul Derenne (once Hugues Cuénod’s opposite number in the famous Boulanger recording of Monte- verdi’s Zefiro torna) and Andre Vessieres are style incarnate, and Derenne’s occasional slight flaws of intonation and steadiness don’t seriously detract from his portrayal of Concepcion’s talkative, fatuously poetic lover. Michel Hamel is a pleasantly peevish Torquemada.

In the final ensemble, the voices appear to be placed somewhat more distantly than before, but otherwise they are very distinct, the text perfectly audible—and comprehensible, if you understand French. If you don’t, London has provided only a synopsis, and you’ll have to invest two dollars more for a libretto (Durand, distributed in America by Theodore Presser; the singing translation, by Katherine Walsh, is not very satisfactory, but there is no other). I’d.
say it's worth it, to get the most pleasure out of this slight but beguiling opera.  

D.H.

RAVEL: Orchestral Works. Concertgebouw Orchestra, Bernard Haitink, cond. PHILIPS 9500 314 and 9500 347, $8.98 each.  

9500 314: Bolero; La Valse; Le Tombeau de Couperin; Pavane pour une infante defunte  

9500 347: Rapsodie espagnole; Menuet antique; Valses nobles et sentimentales; Alborada del gracioso.  

As was the case with a much earlier release by Bernard Haitink and the Concertgebouw Orchestra of Amsterdam (the two Daphnis et Chloe suites and the Ma Mere l'Oye ballet, Philips 6500 311), these two new entries into the Ravel discography immediately fulfill two prerequisites for good Ravel recordings—superb orchestral playing, and rich, clean sound reproduction.  

Should there be any doubt as to the virtuoso qualities of the Concertgebouw, the listener need go no farther than the bravura performance of the extremely difficult Alborada del gracioso, one of the true gems in orchestral vignettes.  

Fortunately, Haitink's efforts as a conductor, if slightly cold, generally complement this excellence quite nicely. Perhaps none of his interpretations will leave the listener as breathless as the Paray Bolero (Mercury SR 75033) or the Boulez La Valse (Columbia M 32838), but he elicits a captivating misterioso sheen in the Rapsodie espagnole that makes it one of the most appropriately sotto voce performances of the work on disc, and he carries this quality over, but with more melancholic overtones, to the Pavane pour une infante defunte. I am even more impressed with his slightly disjointed approach to La Valse and the Valses nobles et sentimentales, in which his rather cubistic conception of the form and instrumentation brings to the foreground the true surreal nature of the musical content. (No, Virginia, such labels will never be put peacefully to rest—not as long as there are critics, at any rate.)  

Less idiomatc, in my opinion, is the somewhat breathless Tombeau de Couperin. And Haitink, like many conductors before him, does not manage to find a way around Ravel's clumsy orchestration of his lilting Menuet antique, which should have been left as a piano piece. Why, furthermore, do the strings get muted almost out of existence in parts of La Valse? But, in general, these discs do the music such justice that they will reach my turntable more often than many of the other discs in my Ravel collection, and they represent an excellent start on yet another complete set of the Ravel orchestral works.  

R.S.B.


Daniel Chorzempa, organ* and piano; Rotterdam Philharmonic Orchestra. Edo de Waart, cond. PHILIPS 9500 306, $8.98. Tape WO 7300 597, $8.95.  

Comparison—symphony: Gavoty, Martinon & ch. National Mg. S 37122  

De Waart's courage in tackling some of the symphonic literature's most demanding showpieces while still in his mid-thirties is admirable, and so is the care with which he avoids the treacherous pitfalls that abound in the Saint-Saens Organ Symphony. But with an orchestra like his Rotterdam Philharmonic, which like the conductor hasn't yet achieved full artistic maturity, much more than care is demanded by a warhorse score.  

There is a constraint here that in the otherwise admirable avoidance of rhetorical...
appreciate how much more blood there was in old man Saint-Saëns than De Waart has as yet realized.

The American-born organist Daniel Chorzempa has little opportunity to display his outstanding skills in the symphony, which gives the organ an obbligato rather than a true solo role. But in the B-side filler, the anticlimactic yet sparkling confections-squared Weindling Cade di

vourissement, the virtuoso Chorzempa demonstrates a bravura that will make many big-name piano virtuosos happy that he isn't likely to challenge them more often on their own turf.

R.D.D.

SARASATE: Zigeunerweisen—See Brahms: Concerto for Violin and Orchestra.

SCHOENBERG: Quartets for Strings. Juilliard Quartet [Steven Epstein, prod.] COLUMBIA MC 3658, $23.98 (three discs, manual se-
quence).


Comparison: LaSalle Qt.

Given the historical significance and the intrinsic value of Arnold Schoenberg's string quartets, it is certainly desirable that there should be more than one good recording of them. Until the LaSalle set (which also includes the quartet music of Berg and Webern) appeared in 1972, only the early-Pift-
ters mono Juilliard set could be regarded as an adequate presentation. Now, the arrival of a new Juilliard version gives us two smoothly recorded, strongly played, eminently musical versions. (The Kohon/ Krum set on Vox is to be avoided, as also the now-defunct DG set by the New Vienna Quartet neither included the early D major Quartet.)

Let me say right off that you cannot go wrong with either set. LaSalle or Juilliard: luckiest of all will be those who have access to both. These two ensembles have both thought about this music deeply and played it often; they unfailingly make sense of its substance and clothe it in tonal beauty. In cases where they have arrived at strikingly different conclusions about it, the diver-
gences are always fascinating and illuminating. Not even King Solomon could arrive with any confidence at an unequivocal judgment that one or the other is 'best'—in truth, a very happy state of affairs.

In general terms, one might say that the Juilliard is a more evenly balanced en-
semble, with Joel Krosnick drawing a firmer, richer, more characterful bass line than his opposite number. And the Juilliards lean to a more forceful rhythmic articulation—though with distinctly less fierceness than marked their earlier record-
ings of this music. In the booklet with the new Columbia set, Robert Mann (the only player common to both Juilliard versions) tells of playing the First Quartet for the composer, back in the days before that first recording. Schoenberg said, "You know, you played it in a way that I'd never con-
ceived it. You play it so wonderfully this way—and I like it—I want you to continue playing it this way!" Later, a Schoenberg disciple confided that 'Mr. Schoenberg thinks you're wonderful, but I have a feel-
ing he might prefer if you wouldn't play quite so intensely.'

Intensity certainly was the keynote of those earlier Juilliard performances, and the remarkable, wonderful thing about the new ones is that they have relaxed (and, in places, broadened) without becoming in any way less propulsive or committed. The First Quartet is an especially fine achieve-
ment, both energetic and expansive in a way that gives the piece the extraordi-


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bring to the slow movement. A similar coloristic virtuosity at the opening of the last movement of the Second Quartet—wisp, fantastic, ambiguous arpeggios, con sordino—is another strong point in the LaSalles set that the Juilliard doesn’t quite match, but I prefer the creamier tone and firmer shaping of the words that Benita Valente brings to the two vocal movements, and set’s a better blend into the quartet sound, whereas the DG engineers have balanced Margaret Price rather too prominently.

If on occasion, here and in the two later quartets, the LaSalles seem less propulsive (one would like to know what music Stockhausen was doing currently, but where he has come from. Thus as early as 1971 Stockhausen in the early stages of experiencing the Schlagtrio for piano and two timpanists, originally written as a quartet with three timpanists but rescored in 1952 in Paris, where he had gone to study with Messiaen after deciding—at the relatively late age of twenty-one—that he wished to become a professional composer. They provide an important link to the earliest work previously admitted to the Stockhausen canon: e.g., Kontra-Punkte, also written in 1952, which the composer himself had considered to be the real starting point of his evolution. (For years he did not allow his earliest compositions to be performed.) They are fascinating works, which combination often made by his critics that Stockhausen began as a composer who, viewed within a more traditional framework, had few compositional gifts and could only have made his way within the rigid universe of integral serialism. The Three Songs, the earliest of these four works, are admittedly derivative yet remarkably effective settings of texts by Baudelaire (in German translation) and Stockhausen himself. The strongest influence seems to be Berg, as is particularly evident in the dramatic lyricism of the voice line and in the way the music frequently—and abruptly—changes character to reflect the sense of the words. The strongly motivic and driving rhythmic quality also brings to mind certain neo-classical forerunners. Especially characteristic is the evocation of “light” music: There are clear allusions to march and dance music, and a jazzylike quality is often apparent as an undercurrent and at one point, near the end of the second song, even rises unambiguously to the surface. The music, like Stockhausen’s poems, often seems overstated and betrays occasional awkwardness, both of a technical and an expressive nature. Yet the work grows with vitality, and as a first essay in free composition it is an extraordinary achievement.

The three other pieces reveal Stockhausen in the early stages of experimenting in more integral serialism. Yet although the sonata, the earliest of these, is according to the composer based entirely on “a single row for melody, rhythm, and dynamics,” its overall form and texture still lean heavily on traditional models. Less exuberant in character than the songs, the work makes a forceful impression, particularly its idiomatic writing for the two instruments. Especially notable is a long, cantabile line in parallel thirds for the violin—an effect taken right out of nineteenth-century violin literature. Spiel, written only a few months later (one would like to know what music Stockhausen had heard in the intervening period), already anticipates much more ritardandistic, more “melodic” sections the composer had never performed before, began to appear in “retrospective” concerts throughout Europe.

The present disc includes four of these: The Three Songs for alto and chamber orchestra and the Sonatina for Violin and Piano, written in 1950 and 1951, shortly before the Schlagtrio, the LaSalles seem less propulsive. We are lucky to have them apparently had no strong aspirations in that direction at this stage); and the Spiel for orchestra and the Schlagtrio, both written in 1952 in Paris, where he had gone to study with Messiaen after deciding—at the relatively late age of twenty-one—that he wished to become a professional composer. They provide an important link to the earliest work previously admitted to the Stockhausen canon: e.g., Kontra-Punkte, also written in 1952, which the composer himself had considered to be the real starting point of his evolution. (For years he did not allow his earliest compositions to be performed.) They are fascinating works, which combination often made by his critics that Stockhausen began as a composer who, viewed within a more traditional framework, had few compositional gifts and could only have made his way within the rigid universe of integral serialism. The Three Songs, the earliest of these four works, are admittedly derivative yet remarkably effective settings of texts by Baudelaire (in German translation) and Stockhausen himself. The strongest influence seems to be Berg, as is particularly evident in the dramatic lyricism of the voice line and in the way the music frequently—and abruptly—changes character to reflect the sense of the words. The strongly motivic and driving rhythmic quality also brings to mind certain neo-classical forerunners. Especially characteristic is the evocation of “light” music: There are clear allusions to march and dance music, and a jazzylike quality is often apparent as an undercurrent and at one point, near the end of the second song, even rises unambiguously to the surface. The music, like Stockhausen’s poems, often seems overstated and betrays occasional awkwardness, both of a technical and an expressive nature. Yet the work grows with vitality, and as a first essay in free composition it is an extraordinary achievement.

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The Schlagtrio for piano and two timpanists, originally written as a quartet (with three timpanists) but rescored in 1973,
is more austere and is almost brutal in intensity. It retains the pointillistic textures of Spiel but not its colorful surface or dramatic flair. Although Stockhausen decided to withdraw it after hearing a tape of its first performance, he thought enough of the basic conception to write a detailed technical note for the composer's edition, which he included in the second volume of his collected writings. To me, the work seems interesting mainly as a document, a reflection of the extreme compositional position at which Stockhausen, in an amazingly compressed development (the entire span of which is contained in the note), had arrived at that particular time and from which he was, even more quickly, soon to depart.

The performances, all of which are under the composer's supervision, are generally very good. There is also a program book that contains notes by Stockhausen (the English translation is opaque and unfortunately not too idiomatic), a musical example (the opening of the sonatina), a 1951 photograph of the composer, and seating plans for the orchestras of the Three Songs and Spiel. R.P.M.


Matching the Hero's impetuous ardor is of course only wishful thinking for the octogenarian Bohm, who obviously labored heavily in the more extraverted sections of Strauss's musical autobiography. But even Bohm's DG/Decca Heldenleben of twenty years ago posed no challenge in those pages to the high-tensioned Mengelberg and Reiner readings. Where he excelled then and years ago posed no challenge in those pages is more austere and is almost brutal in intensity. Yet I need make no reservations. For my taste, one can see what he is after in the haunting entr'acte that opens Act IV, for example, but the effect is less tragic than languorous. Even the national dances of Act III, like the Csardas and the Bolero, which should surely be imbued with elan, are solemn and phlegmatic.

The National Philharmonic plays very proficiently, if not with the utmost refinement. There are good notes by Ivor Guest. All in all, I would say, Previn's account of the original Swan Lake is still the one to get. D.S.H.


Those interested in history and stylistic studies will have some difficulty in reconciling Weber's earlier works with the dates of their composition. If we accept—as we must—that despite Beethoven the Romantic movement was by 1815 as strong in music as in literature, Weber's symphonies, composed at the age of twenty in 1807, show not only a total change from the classical symphonic concept (though Beethoven had not yet composed his Seventh Symphony), but virtual ignorance of Haydn, whose symphonies were still structurally the models for most composers.

Indeed, while Weber tries to shape his music according to a vague classical pattern, he introduces a wealth of new ideas and procedures. The tone is symphonic-operatic, but there are only short stretches well developed; only his nice tunes and the angels keep them together. These symphonies are the work of a born opera composer. They are full of dramatic turns, effects, and surprises, usually preceded by eloquent general pauses. If influences are looked for, they are there, but they are all unmistakably from the theater: Rossini, Spontini, Cherubini—no trace of Beethoven.

So what do we do with these amorphous symphonic side-shows? We enjoy them as they are, at least the first of the two symphonies, because while everything is disjointed, the melodies are delightful, the surprises entertaining, the orchestral writing original and far ahead of Weber's time, and there is no pretension anywhere. The Second Symphony is more acceptable because of its many symphonic clichés.

Weber was a great piano virtuoso, physically helped by unusually elongated fingers and thumbs said to be almost as long as his index finger. By the time of his two piano concertos (1810 and 1812), Beethoven had composed all of his concertos, but Weber's do not show the faintest echoes of them or of any classical procedure: they are extended rhapsodies. Yet a piece like the slow movement in the E major Concerto belongs among the finest examples of heartfelt Romantic effusion. Rossini is again in evidence, theatrical effusion, and the rhythms clearly come from the so-called French military concerto, which Mozart and Beethoven also liked. What keeps these pleasant works together is the fluency of Weber's pianistic writing and his flair for virtuosity, he does his thing and the listener cannot help sharing his sentiments.

The Overture and March from Weber's Turandot incidental music are noisy and vulgar trifles not worth recording. Weber borrowed the main theme, which in turn was borrowed by Hindemith in his Symphonic Metamorphoses on Themes by Weber.

The performances leave nothing to be desired. The two conductors, Marc Andreae and Hans-Hubert Schonzeler, are precise and fully aware of the need for giving Weber his head, so to speak, by accepting the many "changing of the subject" surprises and preparing the way from one to the other. Malcolm Frager nicely catches the spirit of this very personal pianism. In his intelligent cadenza he splices in the famous aria, "Leise, leise," from Freischutz, and it fits beautifully! The sound is first-class, and John Warnack's notes are exemplary. P.H.L.

WESLEY: Symphony in D—See Arne: Symphonies.

MARIA CHIARA: Verismo Arias. Maria Chiara, soprano, National Philharmonic Orchestra, Kurt Herbert Adler, cond. [Richard Beswick, prod.] LONDON OS 26557, $7.98.

Catalani: Loreley. Amor, celebre etroppo. La Wally: Erben? ne andro lontana; Ne mai dunque evi) pace. CILIA:
Delighted as I am to see an entire recital devoted to the music of composers like Cilea, Giordano, and Mascagni (I am less enthusiastic about Catalani, and the Leoncavallo selection here is something of a warhorse), I cannot recommend these performances. Not so much because the singing is bad, as because it is dull.

By present-day standards, I suppose, Chiara must be called an adequate enough technician—though she hasn’t the trill called for in the Pagliacci Ballatella and in general employs so dark and covered a voice down to a thread of vibrant tone, he was once able to fine his sound pure and steady, and, whenever he gave a cantilena he had difficulty in keeping the lyrical music. In anything that approaches a performer as ever. He is not, of course, the singer he once was. Nowadays the voice has all the charm and virtue of its owner's head voice.

On the evidence of this recording Boris Christoff, who has been before the public for more than thirty years, remains as vivid as because it is dull.

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High Fidelity Magazine

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The album under review is derived from a set of six twelve-inch 78s made by C. Schirmer, Inc., in 1939 when Nina Koshetz was on the verge of retirement. Though she had enjoyed an illustrious career, she was never a great popular vocal star. No doubt the fact that, in the U.S. especially, her operatic appearances were comparatively few has something to do with this.

Nevertheless, with both audiences and musicians Koshetz enjoyed a reputation for artistry second to none, having been the first to sing in public a large number of significant contemporary songs by composers like Prokofiev, Medtner, Glazunov, Scriabin, Varese, and Ponce, many of which are, in fact, dedicated to her. Particularly notable is her close, albeit brief (1915-17), personal association with Rachmaninoff, which had the result of reawakening his interest in the art song and led directly to the writing of the six Op. 38 songs, whose premiere performance was given by Koshetz and the composer at an all-Rachmaninoff concert in Moscow in 1916.


RACHMANINOFF: mezzo than a soprano, both in range and in vocal coloration. She was also partly a diseuse: In several of these songs—e.g., the opening and closing sections of Tchaikovsky's "At the Ball"—she indicates the correct pitches in a mar- cato style and then almost immediately allows the singing tone to lapse. She also feels...
Musicassette-series debuts: 1. RCA boxes. The season's biggest, most welcome tape news is that at long last RCA is releasing boxed multiple-cassette sets complete with notes-and-texts booklets—a practice well established among overseas manufacturers, but one lamentably ignored up to now by American producers. The introductory list (all Dolly, of course, with standard prices for two and three cassettes, $15.96 and $23.94, respectively) is a mighty impressive one of eleven complete operas plus the Verdi Requiem, divided almost equally between recent recordings and favorite older "standards."

What with the usual delays of any major new project, the sets themselves hadn't reached me by copy due-date time, but at least I can whet collectors' appetites by citing the first-course menu. The five relatively new productions are the Goldman/Houston/Broadway Porgy and Bess; the Andrea Chenier and Forza del destino conducted by James Levine and starring Renata Scotto and Leontyne Price, respectively; the Verdi Requiem conducted by Georg Solti and starring Price and Janet Baker; and Offenbach's La Périchole from Erato, with Régine Crespin (first taped in this country as the budget-priced Musical Heritage set MHC 5518/9, lacking a libretto). The seven oldies, but decidedly goodies, are the 1964 Karajan/Price Carmen; the 1974 Solti/Caballe Bohème; the 1963 Leinsdorf/Price Madame Butterfly and their 1971 Aida; the 1974 Mehta/Price Tosca; the 1960 Leinsdorf/Nilsson Turandot; and the 1961 Previtali/Mollo Traviata.

2. Peters International. This importing specialist launches its own productions of novel French Decca/Sofrason classical recordings in cassette as well as disc editions, $7.98 each. The first eleven programs feature talented young French musicians mostly little, if at all, known hitherto in this country. My first samplings (André Bernard's baroque trumpet concertos in PCE 002 and the Maxence Larrecq/Pierre Pierlot flute/oboe duo concertos in PCE 004) were strictly for my own benefit since—as writer of the disc-jacket notes—I'm disqualified from reviewing them. Ironically, the Peters cassettes, admirable in many respects, follow the bad American practice of omitting notes.

But I soon came across two arrestingvaluable musical and recorded-performance discoveries I can write about with the special enthusiasm of someone whose previous evaluations of the composers involved have been radically upgraded. One is Lalo, whose rarely heard but magisterially dramatic and vital c. 1872 Violin Concerto, Op. 20, and 1883 Concerto russe, Op. 29, both star the elegantly Gallic fiddling of Jean-Pierre Wallez with the Orchestre Philharmonique de Radio France under the extraordinarily authoritative conductor, new to me, Kazuhiro Koizumi (PCE 005). And almost as startlingly revelatory is the apparently first (in this country anyway) recordings of four rewarding strings-and-continuo concertos from Locatelli's Op. 4—Nos. 8, 10, 11, and 12—with Wallez doubling as soloist/leader of the Instrumental Ensemble of France (PCH 107).

Both these (and three other Peters releases) are Grand Prix du Disque Français winners. Indeed, the whole series is admirably recorded (the Lalo exceptionally so) and satisfactorily tape-processed, although the Dolby quieting varies from quite good to only fair—in much the same way that RCA's earliest Dolybized cassettes suggested that the technique hadn't then been fully mastered.

3. Quintessence. When the new Pickwick budget-disc series appeared last fall, there was no mention of tape editions, so it's a delightful surprise to receive a batch of no fewer than seven—of seventeen (of nineteen announced) Quintessence cassettes, all of them Dolby of course (but lacking notes). List-priced at only $4.95 each, all those I've heard so far are exceptionally well processed with very good to excellent Dolby quieting.

Attractive as many of the old-friend RCA programs are to me, I concentrated immediately on the (to me) legendary Reader's Digest recordings, c. 1962-68, featuring that most unappreciated master conductor of recent times, the late Jascha Horenstein. And what revelatory paradigms of lucidity and eloquence they prove to be—not only his outstanding Dvorák New World Symphony (PAC 7001), but also his distinguished Brahms First (PAC 7028) and Tchaikovsky Fifth (PAC 7032). Even more remarkable is his Wagneriana (Tannhäuser "Venusberg Music," Flying Dutchman Overture, Siegfried Idyll), combined with the still-in-his-teens Korngold's Violanta excerpts (PAC 7047). Some distinctively "different" appeals. Unique in all music is Berlioz' poignant evocation of L'Enfance du Christ with its unforgettable haunting Shepherds' Chorus. But it has been missing on tape ever since the 1961 Colin Davis/Oiseau-Lyre version went out of print in its London/Amsterdam reel edition. Hence my heartfelt welcome for a brand-new Davis performance (Philips 7699 558, two Prestige Boxes with notes and texts, $17.90). While Janet Baker and Eric Tappy can't quite match the magic of Elsie Morison and Peter Pears, the John Alldis Choir sings truly angelically, the London Symphony plays superbly, and for the first time the incomparably imaginative score is well-nigh ideally recorded.

The first tape representation of the invaluable illuminations (in several recent disc editions) of the Handel organ concertos is provided by the Tachezi/Harmoncourt all-period-instrument versions of the twelve Opp. 4 and 7 works (Telefunken 4.35282, two Prestige Box cassettes with notes, $17.90). Tachezi's stylistic authority and infectious zest and the tonal quiries of his little portative organ are special musical attractions here: gleamingly clean recording and the new TriTec cassette-processing are the technical ones.

More Barclay-Crocker Vanguard reels. Latest in the series begun last November are five previously untaped programs ($7.95 each, by mail only from Barclay-Crocker, 11 Broadway, New York, N.Y. 10004). From 1968 come the Abravanel/Utah set of favorite Leroy Anderson encores (D 10016). Lili Kraus's distinctively bold readings of the eight Schubert Impromptus, D. 899 and 935 (D 10031), and Earl Wild's aptly entitled "Demonic Liszt" recital featuring, among other devilish display pieces, the "reminiscences" of Meyerbeer's Robert le Diable and Mozart's Don Giovanni (D 10041). Newer are the 1974 Bach Cantatas Nos. 11 and 80 (trumpet-and-drums edition) by British singers and chamber orchestra under Johannes Somary (E 71193) and the Gottschalk four-hand piano music (D 71218) by Eugene List and others, which I reviewed in its disc edition just a year ago. All five releases are processed in state-of-the-art Dolly open-reel technology. The Gottschalk is of special technical interest for newly achieved transparencies that make it certain, not just conjectural, that the "somewhat lightweight" piano qualities are intentionally suggestive of those characteristic of most of the instruments of Gottschalk's own time.
free to change notes in duration, dynamics, and even pitch when it suits her to do so. One of her favorite tricks is to take the final note of a song, especially a note she finds uncomfortably high in her range and voice and sing it through a half-closed mouth, prolonging it for several bars, whatever the composer's specifications may be.

If all of this sounds horrifyingly irresponsible, I can only say that the results are for the most part anything but horrifying. Mostly they are extraordinarily vivid. Not everything here is equally fine, but certainly "Lillas. "To the Children," "Christ is risen.], "In the silent night," and "When yesterday we met" are, for all their vocal limitations, as impressive as any renditions of these songs I know. More than they have an individuality and presence that makes them irreplaceable. Other fascinating performances here are the aforementioned "At the Ball" (though not the other Tchaikovsky song included, "None but the lonely heart") and the self-accompanied "Anuri, anuri"—the so-called "Scirian Cart-Driver's Song"—whereas it omits the clicking noises we hear on the Blanche Marchesi and Ponselle recordings, is no less colorful and sensitive.

In the notes we learn that Koshetz felt Celius Dougherty was not an entirely sympathetic accompanist, yet everything he does here sounds first-rate. Honest dubbings, but, alas, no texts or translations. D.S.H.
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If you're waiting for Todd Rundgren to "happen," forget it. He simply can't sprout chart charisma like so much downy blond hair. His albums won't ever sell multiple platinum, radio stations won't mention him hourly, and teen magazines won't lionize him. On the other hand, the fans he does have (if record sales are any guide, about 100,000) are wedded to him in one of the strongest affinities in the rock marketplace today. He tends to reward them in playful ways, such as the poster from the 1974 "Todd" album composed of the collected names of postcard respondents to his previous LP, or his notorious stage dive from the top of the pyramid he takes with him on tour. The fact that he crams more program on one record side than anyone else (thirty-six minutes on one side of "Initiation," as opposed to the industry norm of twenty) tends to further endear devotees, even though record company executives would prefer less artistic self-indulgence and more 2½-minute, made-to-order potential hits. But Rundgren knows who his friends are, and fans are better company anyway.

Besides, he's already had his chart successes. He first surfaced not quite ten years ago with a psychedelic flash in the pan called the Nazz, whose sole hit—Hello It's Me—was an elegiac tearjerker he had written at the age of sixteen. That song's politely potent voicings, major seventh chords, and deceptive cadences became Rundgren trademarks: He employed them on the next two albums, "Nazznazz" (1969) and "Nazz III" (1970). When too much too soon broke up the band, he continued his apprenticeship under the nom de disque Runt, releasing a solo album of the same name in late 1970. Self-contained recording art—
ists were relatively uncommon at this time, and with "Runt" Rundgren became one of the first in the industry, writing all of the material, handling all of the vocals, playing drums, and laying down six different guitar tracks. That album's hit, the blithely innocent We Gotta Get You a Woman, led to a second Runt release in 1971, "Ballad of Todd Rundgren." (All five of these records are now collectors' items, bringing up to $50 per copy.)

His technical expertise exposed on the two Runt efforts, the Band hired him to engineer "Stage Fright," by which they were so impressed that he was called on again to produce "Cahoots." From 1971 to 1972, Rundgren worked on at least a dozen albums besides his own. His magnum opus was "Something/Anything?", on which he sang all the vocals and played all the instruments for all but one of the four sides. The fourth, a jocular rock-opera takeoff called Baby Needs a New Pair of Snakeskin Boots, featured a session band recorded live—without overdubs—with Rundgren singing and playing piano or guitar and watching the board besides. The album meant total immersion for him. "I installed a tape transport and mixing board in my living room," he recalls, "and when the studio closed for the day I'd work on the tapes at home."

"Something/Anything?" represented the apex of his pop compositional style—partly Beach Boys summertime harmonies, partly Phil Spector Wall of Sound raised an octave, mostly shameless teenage romanticism. It spawned three radio classics: the shy but impassioned I Saw the Light, the insistent, rocketing Couldn't I Just Tell You, and a slightly funky remake of Hello It's Me. Rundgren earned a gold record for the album, at the age of twenty-two.

It was his last. He undertook a few explorations in mind-expanding drugs—under circumstances he describes as "scientific"—and, though he denies they had any overt influence, in 1973 "A Wizard, a True Star" emerged. On it he traded his ingratiating pop eclecticism for a psychedelic potage of electronic mutations and careening ideas. "I got bored with everything I knew how to do and wanted to learn something else," he admits.

Those who treasured his earlier hits found it all decidedly uncouth. Blocks of Rundgren's cultural history—monochord guitar boogie, Philly soul, perky commercial jingle, and Peter Pan—were chopped up and reassembled into a structure that turned strangely heroic. Nowadays Rundgren describes it mildly: "It suddenly occurred to me that the reason pop songs were three minutes long was that that was the maximum time on the old 78-rpm records. A side of an album shouldn't be bound by that limitation. So I took a number of ideas I had, some rather long and some real short, and ran them all together."

His next few albums grew even longer, and a new strain of harsh reality began to creep into his lyrics, first noticeable on 1974's "Todd"—"trying to make a living off an LP's worth of toons." And, as he continued his attempts to "learn something else," he became fascinated with the synthesizer. His approach to that instrument is perhaps the most humanized in rock: He tries to interact with it without specifically controlling it. "Half the time I have no idea what I did," he recalls, referring to some of the synthesized tracks on "Todd." "It did something intriguing, and I responded." (Rundgren's tutor was Roger Powell, a house musician at Arp.)

That same year marked the founding of Utopia, his first group since the Nazz days. "You have to work with other people," he says. "I'll still release Todd Rundgren albums, which will be all my own ideas, but working with Utopia is fun—like making a record is supposed to be." The lineup of the band has changed completely in the four years of its existence, but it is now a relatively stable unit: Powell on keyboards and trumpet, bassist Kasim Sulton, and drummer John Wilcox.

Utopia's second release, "Initiation" (1975), contained the notoriously elaborate thirty-six-minute studio production on Side 2 and was followed up by the least interesting album he ever made, "Todd Rundgren's Utopia, Another Live." When Warner Bros. executives reviewed the latter's disappointing sales figures, they put their corporate foot down. "Give us hits," they said, so Rundgren stalked back to his studio and gave them hits: One side of the following year's album, "Faithful," consisted of letter-perfect renditions of a commercial jingle, and Peter Pan—were chopped up and reassembled into a structure that turned strangely heroic. Nowadays Rundgren describes it mildly: "It suddenly occurred to me that the reason pop songs were three minutes long was that that was the maximum time on the old 78-rpm records. A side of an album shouldn't be bound by that limitation. So I took a number of ideas I had, some rather long and some real short, and ran them all together."

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His last two albums, both under the Utopia aegis, constitute another ascent to fantasy, and another return to reality. "Ra" (1977) presented a lot of deliberate fantasy, based on Egyptian mythology. An alle-
gorical fairy tale, Singring and the Glass Guitar, showed off the new, tighter Utopia band, and Magic Dragon Theatre underscored that all of the album was to be taken as illusion. "Oops! Wrong Planet," on the other hand, was grimly realistic. Rundgren called it protest music: barbs against government and corpo-rate oppressors and sagas about the plights of cities, ex-cons, and lovers. Implicit in every song was an ex-
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Though the music in "Oops! Wrong Planet" is as conventional as anything he's done, the production revels in aural excitement. The vocals on the last verse of The Marriage of Heaven and Hell are gradually rendered acoustic mush with a Vocoder. The most electronically advanced effect, and the hardest to discern, occurs in Love in Action: The lyric runs "You can't stop love in action," and the last "stop" is carved into little segments of frozen time with a digital delay line.

Despite his penchant for getting his own music down in as few takes as possible, his production takes a lot of time and he is often the last to leave the studio. "All of it is in the mixing," he asserts. "Sometimes a performance can be so spectacular that it will shine through even though the production and engineering are crap. But in most cases bad engineering and bad producing can wreck a performance, no matter how well it's done." He disclaims all responsibility for the Band's "Cahoots," for example, because he left before it was finished-he supervised only the backing tracks and had nothing to do with the final mix.

He views his outside production work as a service for hire, not as an opportunity to ego out at someone else's expense. Consequently, he's very conscious of his role as a go-between, bridging the gap between the artist and the music on the one hand and the engineer's board and processors on the other. And though he dips heavily into his catalog of effects for his own works, he doesn't impose that drastic sonic smorgas-bord on the other artists he produces. In fact, if his production has any characteristic sound, it's based on nothing more than an unusual appreciation of the high harmonics ignored by most rock ears.

He does tend to probe his charges for potential innovations. Daryl Hall and John Oates let him shat-
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His whole professional life symbolizes the conditions of his "real" life. In the liner notes to "A Wizard, a True Star" he wrote, "I'm just a musical representa-tive of certain human tendencies-the Quest for Knowledge and the Quest for Love." This is no less true whether he dives off a pyramid, orchestrates an intricate harmony over a prerecorded backing track, or assembles a new video tape.

In parting, I asked him what he would need for his own utopia on earth. He replied that he already has it: work that challenges him, purposes that inspire his insulation is his management team, which includes Albert Grossman and Paul Fishkin, who are the owner and president, respectively, of Rundgren's label, Bearsville. These gentlemen are strong in their loyalty to Rundgren, much to the dis-
may of distributor/overseer Warner Bros.-who want to see him clean up his act and write a few hits.

Perhaps he has. He claims that his new album, The Hermit of Mink Hollow," is less ethereal and more accessible than past efforts. It's his first solo LP since "Faithful," and contains all new material. "Oops! Wrong Planet" managed to stay within the Top 40 for twelve weeks, and maybe he will regain some AM airplay with this one. But don't hold your breath, for Rundgren is happy with his present level of commercial attainment. He can record whatever and however he wants at his own Utopia Studios in Wood-

He does not espouse any of the philosophical atti-
tudes adopted for his music. He terms himself a prag-
matist, whose primary interest is the modus operandi of communication in whatever form. One alternate avenue of expression that interests him at present is video graphics: He's built himself, at a cost of $150,000, a personal video studio. On his latest tour he showed two of his new works, one of which—an impressionistic space fantasia of robots and polygons—used video techniques that resembled some of his favorite audio distortions: echoplexing, clipping, phase shifting, and flanging.

Fantasies he writes in abundance, but they're in the nature of parables or outright escapes, free of pre-
tense. It is this honesty that his fans respond to so strongly. (An impromptu demonstration was pro-
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In parting, I asked him what he would need for his own utopia on earth. He replied that he already has it: work that challenges him, purposes that inspire his friends that he can work with and relate to. And beyond that, perhaps he can change the world with just this guitar.
If I weren't a recording engineer myself, I'd have wondered how Carly Simon's new album ever got recorded in the first place. The atmosphere in the control room of Studio A at New York's Atlantic Studios last November was congenial and laidback: Carly's husband, James Taylor, talking on the phone between bites of an apple; producer Arif Mardin conferring with Carly on how to approach the next take while simultaneously listening to the last one; daughter Sara Taylor coloring in the outlines of the fishes and birds that her mom and Arif had drawn for her and constantly coming forth to seek approval. But who was running the show? After all, a Carly Simon record can't sound just all right.

Clearly, it was engineer Lew Hahn who served as the anchorman in this deceptively easygoing atmosphere. His responsibility entailed simultaneously keeping his mind on some fifty VU meters, microphones, cables, signal-processing devices, direct boxes, a roomful of musicians, an assistant, a producer, two platinum-record artists, and anyone else who happened to wander into his control room. And Lew handled it all effortlessly, still finding the time and presence of mind to offer musical suggestions, point out errors, and maintain a pleasant disposition.

Lew came to New York ten years ago, after graduating from college with a major in industrial engineering and spending some time at the Berklee School of Music in Boston. He had played keyboards since grade school and wanted to combine his talents in the field of recording. He spent six months pounding the pavement before getting a job as an assistant engineer (a polite name for a go-fer in those days) at Regent Sound in New York. Three years later he moved to Atlantic, where he has remained since, working with Roberta Flack, the Bee Gees, Bobby Short, the Modern Jazz Quartet, Ringo Starr, Bette Midler, and many other top acts.

An engineer in the professional recording industry must by all means be a technical wizard. But if he's good—really good—he's more than that, and Lew's ability to think on his feet and to adapt to his particular subject's needs is what keeps the big names coming back. Example: Bette Midler's 1972 recording of Superstar. She's at her best in a live-performance situation, so Lew turned down all the lights in the studio, put a spot on her, and gave her a hand-held mike. In addition, a slew of young men from the Continental Baths (in the Ansonia Hotel in New York) were invited to sit in his control room and serve as her audience. It was just what she needed, and Take 15 went off without a hitch. Example: Ringo's latest album, "Ringo the Fourth," has two drummers on it—Ringo

### MICROPHONES

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<td>Bass drum</td>
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and Steve Gadd. Just getting one drum to sound good is enough of a challenge. But getting two of them onto the same record without crowding is another level of achievement. Lew’s preference is the clean sound, essentially natural. On the day I attended Carly’s session he was recording the rhythm tracks for For Old Time’s Sake. The musicians included Gadd on drums, bassist extraordinaire Will Lee IV Jr., Jeff Mironov on electric guitar, Richard Tee on keyboards, James Taylor on acoustic guitar, and Carly on guitar and vocal. Lew was careful about detail from the outset. For example, the bass drum was assigned to Track 1. This minimized the “fringing effect”—strong low-frequency signals bleeding through to adjacent tracks—since Track 1 is on the outside of the tape and there is only one adjacent track for it to bleed through to. Assigning overdubs can be another problem, especially when the need arises to bounce tracks (combine pre-recorded tracks onto a new one to create space for additional information). To avoid feedback the tracks to be mixed together must not be bounced to a track that is adjacent to any one of them.

Out in the studio, the bass and guitar amplifiers were enclosed in custom-built movable gobos, which were actually acoustically treated boxes. The drums were in the main room with the other instruments but were also surrounded by gobos that had “live” sides facing the drummer. The overall result of all the gobos and direct feeds was minimal sonic leakage (the engineer’s nemesis) and thus excellent separation of all the instruments for subsequent mixing—which Lew calls his “finest hour.” Good eye contact was maintained between musicians wherever possible, and each performer had his choice of three different cue mixes for his headphones. Carly heard mostly piano, Richard mostly drums, and Steve mostly bass.

Since the drum sound is so critical we went over it in detail. The snare was miked with an AKG 414 on top and an Electro-Voice RE-15 underneath. I asked Lew about this double miking: “The top mike is really for the sound of the skin and the real tone of the drum. For the bottom, it’s less important which microphone you choose, because it’s really the sound of the snares themselves that you’re recording. I eq. the bottom mike with a lot of 10 k [high-frequency boost]... First I get the sound I’m looking for with the top mike and then I add the bottom mike until I get the presence and crisp snare sound that I want.” Lew chose a Neumann U-67 for the hi-hat. For the toms, he used Neumann U-87s, widely considered the best microphone in the broadest range of applications. He used a Neumann U-47 tube type on the floor tom to give it a full, round low end. The overhead mikes, which cover the cymbals and the overall sound of the drum kit, were again U-87s, and the bass drum was miked with a “secret” microphone and draped heavily with movable blankets. Lew agreed, though, that for all the time spent in miking selection and placement having a really fine drummer makes all the difference.

The console in Studio A is an MCI JH-528 28-in, 24-out custom board. But perhaps the word “custom” is an understatement, since most of the faders on Atlantic’s boards work the opposite way from the standard mix desk design. That is, the top of the travel is off, and the bottom is wide open. This was the brainchild of Tom Dowd, one of Atlantic’s first in-house engineers and now one of their better-known producers. Lew explained the origin of it: “We first used it with eight-track, since you could put four fingers from each hand on the board and cover all of your faders. Your hands formed a little arch, like they do when you play the piano. You could manipulate the faders in a dynamic way, flicking them away to make the sound softer, bringing them toward you to make it louder.” He claims that once you get used to it, “it’s much more comfortable and logical—the sound comes toward you..."
in the same motion that the fader comes toward you. It becomes a physical analog of what you’re hearing.” Needless to say, this caused some “comical disasters” when Atlantic recently opened up their facilities to outside producers and engineers, and they have since installed some consoles of the standard orientation.

Lew’s console is used in conjunction with an MCI 24-channel recorder with Dolby A noise reduction on all channels. He prefers using the 15-ips tape speed with Dolby to 30 ips because he feels that the low-frequency response is better at the slow speed and that the Dolby takes care of any noise problem. Aside from some basic equalization, the only signal processing used was a peak limiter on the bass (UREI 1176) and a MagnaTech Model 31B limiter/de-esser on Carly’s vocal.

The control room was updated in 1975 under Lew’s direction. The monitors are Altec/Gauss systems biamped with Crown amplifiers, and the room is tuned using UREI Acousti-voicing equipment. Mike O’Reilly, without a doubt one of the most on-the-ball assistants in town, stationed himself at the MCI Auto-Locator (an automatic tape-position locator), where he logged the start and stop positions of the takes so Lew wouldn’t have to slate them over the talkback system. Slating, or announcing take numbers, can be distracting, so Lew prefers to rely on the memory of the Auto-Locator where possible. Musicians have told me that hearing “Take 1” or, worse still, “Take 18” booming out of the studio loudspeakers makes them think any number of tension-producing thoughts.

The acoustic piano, a Steinway B grand, has also been customized for recording. Quite simply, the lid is raised about six inches all around, leaving enough room to get two microphones in and allow flexibility in finding the ideal position. This also provides enough space inside for the instrument’s natural resonance to be picked up, while at the same time maintaining good separation from other mikes nearby. Lew used two Sony C-37 condenser mikes for stereo piano. The Fender Rhodes piano was taken direct into the console, with its internal speakers disabled to prevent leakage into open microphones, and the Leslie speaker for the Hammond B-3 organ was miked with three Electro-Voice RE-20s. Since a reflector in the Leslie rotates, two mikes were used on top to avoid the Doppler effect (the train whistle approaching and going away, remember?). The third RE-20 was used to

“...She’s a consummate musician with a great instrument and a great range.”
Carly and James recording for her new album

cover the bottom of the speaker cabinet. Will Lee’s Fender Precision bass was taken direct to the console, but he had an Ampeg B-15 amp at his side for the feel. The electric guitar was played through a Fender Twin Reverb amp and miked with a Neumann U-47. Acoustic guitars got Sennheiser MD-441s, and Carly’s vocals were captured by another U-47.

Most of the record’s material was gone over in detail prior to the sessions at Carly’s Manhattan apartment, with producer, artist, and musicians collectively deciding chord changes and song form. Mardin had taken some of the songs home and transcribed them (one of the few producers who does so) to the lead-sheets everyone worked from during the rhythm sessions. I asked about the absence of written rhythm parts, such as a bass line on For Old Time’s Sake. Mardin explained that, if he has an idea for a specific figure, he will write it in, but generally he hires musicians whom he trusts to develop their own parts. A key factor in his excellence as a producer comes from his ability to distill several ideas from different musicians into the essence of what is needed for a song to be “right.”

There is no question that he elicits the best from those he works with, and his interchanges with Gadd, Simon, Taylor, Mironov, Lee, Hahn, and Tee were intensely creative and congenial. He is also a brilliant (and much sought-after) string arranger.

I asked him about this album with respect to orchestral overdubs and any “goodies” that would be added to the basic tracks. He said that this would be “a pretty straight-ahead record.” He was seeking to enhance the natural poetry of Carly’s lyrics and the crystal clarity of her voice. He would do some string arrangements but generally was planning to avoid a “big production” feel. Carly agreed: “I’m trying to avoid... obscuring the lyrics, because I’ve had a tendency on some of my records to say ‘Oh, this sounds good,’ and ‘Well, that sounds good too!’ And everything does sound good, but it’s not as clean, it’s not as pure as it should be. The message doesn’t come through as clearly because I’ve been extravagant. I’ve made a resolution to avoid that here. Instead of making a production a ‘production,’ you work to get the song through, however simply or complexly....”

Lew went along with that: “Some of her other albums had massive string orchestras on just about every song, with the big tom-tom rock & roll drums in the back and a vocal group singing parts. It was a certain kind of sound... This time, one of the cuts has no drums at all—which in itself is a step down in scale.”

He had only the highest praise for Carly’s work in essentially the same style: “She’s not a prima donna, she’s a consummate musician with a great instrument and a great range. With her, performances are only matters of degrees of excellence. There’s no such thing as just getting an acceptable take on the vocal.

“We hadn’t worked together before basically, so there was a lot of feedback. We’d do a couple of takes, and she’d come back in and comment... She might want a little airier quality in her voice so I would add a lot of artists get very confused in the mix. essentially the original microphone I selected was the one that stayed with us throughout the whole project.”

She was also helpful during mixdown. “A lot of artists get very confused in the mix. They might say ‘just make me loud,’ which is usually the wrong thing to do. Or sometimes they talk about eq. and they mean echo... But Carly really understands the process. She’s involved in the type of echo we use on her, in the proportions of instruments. She knows what she wants, and she’s usually correct in her judgments.”

Great engineering, sensitive producing, all of the finest studio musicians available, and a vocalist of great distinction. The best of everything. The album’s current working title is “The Boys in the Trees,” and, although I personally have no idea of what the final product will sound like, the tracks I did hear were outstanding. For the bottom line is that Carly Simon writes songs that hit you where you live. And, like her cohorts Mardin and Hahn, nobody does it better. •
**Multivox MX-2 Fullrotor.** This device is designed to produce the rotating-speaker, or Leslie, effects that have long been associated with organ sound. The Leslie derives its characteristic “swirling” effect from a rotating pair of reflectors in the upper portion of the cabinet. So if you are a guitarist, bassist, or Cordovox player, you might have wished for something a bit smaller that would give a similar sound.

The Fullrotor processes the signal on its way to your conventional stage amplifier. It cannot fully duplicate the effect of the Leslie, but it does produce a similar tremolo as well as a distant cousin to the flanging effect. Actually the sound of the Fullrotor is unique and interesting. The front panel has a three-position switch for FAST, SLOW, or STOP (as it applies to the effect). A combination on/off switch and depth pot on the right side control AC power and the intensity of the effect. The entire package weighs 3.5 pounds and measures 8 by 6.5 by 2 inches. Power consumption is 3 watts, and the suggested list price is $159.50.

**NEW USES AND OLD STANDBYS**

**Shure M-610 Feedback Controller.** This little unit was designed as a “cut only” equalizer for sound reinforcement applications, but it happens to contain just the right electronics for use as a one-channel mike controller for home recording.

One channel? Are we seriously suggesting a return to mono? Well, no, but the home recordist working alone is frequently in the one-sound, one-track, one-mike situation where multiple input mixing is not necessary. And the M-610 offers an alternative to spending many dollars on a big console just to get a little tone control on one mike.

The unit will accept a single mike or line input of any impedance (it is switchable), equalize the sound, control the level, and eliminate the need for quite a lot of expensive transformers and cable adapters in the process. You will still need a mixer to play back your multi-channel tape when you are done, but the line-level input on the M-610 allows you another chance to “touch up” your signal. Buy two units and you have stereo capability. Upgrading to a larger mixer will not relegate it to gathering dust: The owner’s manual is an absolute joy and includes a complete set of specifications, parts, diagrams, and instructions for operation and repair. The M-610 costs $149.40.

**Annis demagnetizer kit.** Do you know that your tape heads are free of magnetic buildup? The Annis Audiophile Han-D-Kit contains a magnetometer (gaussmeter) that lets you measure, as well as a really effective demagnetizer, several sheets of instructions, and some strips of magnetic material to practice on. (It’s nice to be able to check your technique.) The degauser is the only one we have seen that is capable of cleaning stray magnetism from large capstans. Get the field down to 0.2 gauss, and you are safe.

A word of caution: This unit is powerful enough to degauss the magnetic armatures of your VU meters, so stay clear of them. This device will run for several minutes without excessive heating—and that alone seems worth the price ($34.25 for the standard version, $58.50 for the deluxe version, in which the magnetometer has jeweled bearings).

**Production Devices Model 120 Step Frequency Generator.** A signal generator at moderate cost is now available to home tape recorder enthusiasts. For most purposes, a laboratory-quality unit is overkill with a vengeance—you don’t need a distortion figure of 0.0005% to do a level check. And using up huge chunks of your budget merely for a whistle to set up equipment by is painful, as well as wasteful.

This no-nonsense little plastic box is just what the doctor ordered for simple setup and tape recorder alignment. Its maximum output is +6 dBm, variable, and an RCA jack is used for the output, so you don’t need special or exotic adapters. The frequencies available are 100 Hz, 400 Hz, 1 kHz, 3 kHz, 10 kHz, and 15 kHz. Distortion is a moderate 0.5%, and the only annoying characteristic is that the levels shift slightly as you change frequencies. The Model 120 is powered by two 9-volt cells and is well worth its $29.95 list price.

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**Audio Accessories**
Joni Mitchell: She Soars, She Orbits, She Never Lands
by Don Heckman


More than almost any performer I can think of who operates in what might be called the commercial venue, Joni Mitchell has produced a body of work—call it her oeuvre—which demands evaluation beyond the simple questions of whether the hooks work or the rhythms make the feet tap. “Don Juan’s Reckless Daughter” is described in Asylum’s newspaper ads as Joni Mitchell’s latest “work.” The description—with its not-so-veiled implication that Mitchell should no longer be viewed merely as a singer/songwriter or, God forbid, an unreconstructed folkie—may be apt, but it’s unnecessary. Real creative work speaks for itself, without benefit of flackery.

Mitchell’s singing, her words, and her music have each shown remarkable change and growth in the last decade or so, with a consistency that is virtually unmatched by any of her contemporaries. Start with her singing. Compare the rich, dark colors of her present sound with the piping head tones of Song to a Seagull. A shaky performer in her early years (I watched her take her first tentative steps toward maturity during her debut concert at Carnegie Hall), she now moves across the concert platform—and the recording studio—with the confidence of a master. She is largely untouched by the rhythm & blues/country influence that infect the work of most name performers these days, and she has cast off most of her earlier folk mannerisms. If any influence reveals itself—especially in recent years—it comes from the free and easy impromptu inventiveness of the jazz players she has listened to and worked with. Yet this, as with most elements of her art, has been thoroughly filtered through Mitchell’s eye-on-the-world perspective. As a result, Off Night Backstreet and Cotton Avenue, like Rainy Day Night on “Miles of Aisles,” come as close to the sudden, sparkling spontaneity of true jazz singing as one could ask for.

Mitchell’s lyrics, her word-picture characterizations, have attracted the greatest attention over the years—some favorable and some not, but most of it intense. That she has a poetic sensibility of the first order seems transparently obvious to me. Like many listeners I find her frequent need to use her work as a purgative for sundry love affairs a bit tawdry. I am equally put off by the relentless impressionism of her imagery and—more so—by the too-frequent use of rhyming couplets that make little or no use of rhythm patterns that might provide her with a more meaningful creative challenge. But beyond all this, past the personal interludes and the silly political and ecological messages, she is a first-class storyteller and the creator of superb characters.

Mitchell’s music has been the least understood and the least appreciated of her arts. An autodidact, she has never been content to stick with the obvious solutions. The folk-based harmonies of her earliest songs were spiced with unorthodox guitar tunings and chords piquant with overlapping fourths and fifths. In more recent years, she has responded to her expanding experience with a range of music that is at the same time personal, intimate, complex, and sophisticated. If snobbism toward pop music was not still rampant in the halls of academe, I’m sure Mitchell would be rightfully acknowledged as one of the most significant creative musical talents of this generation.

Her recordings always are a bit mysterious, especially for an audience accustomed either to the rudimentary messages of most pop music or to the “sure-I’ll-be-happy-to-explain-it” attitude of many of the more “serious” pop com-
These pieces vastly preferable to the coy, though overly intimate at times, I find highly personal account of that journey. A limpsesh of her journey from the past. Of the Mitchell history-overlapping paces it is not immediately apparent, although the rudimentary qualities of his composing skills make his music both more obvious and more accessible; Van Dyke Parks comes to mind, as well, even though Parks never considered himself an ongoing performer in the way Mitchell views herself; late Beatles music, surely, but the complexity in their music usually came from the trappings that surrounded it rather than from any implicit creative density. Others—Paul Simon, Randy Newman, Janis Ian, Steely Dan—touch, in their own ways, some of the bases, and, as with Mitchell, their audiences usually gravitate toward the more accessible, lightweight cuts than the acute, penetrating ones. Newman, after all, is more closely identified with I Think It's Going to Rain than with Daney the Fat Boy or So Long, Dad, or Sail Away. So, too, is Mitchell better known for Both Sides Now, Circle Dance, and Woodstock than she is for Blue, For Free, Rainy Day Night, or In France They Kiss on Main Street.

"Reckless Daughter" provides no real surprises for those who have heard her most recent recordings. If there is a thread connecting the pieces of its four sides it is not immediately apparent, although "dreams"—the one word that recurs most often and that outlines a crucial episode in the pièce de résistance, Paprika Plains—probably best defines the album's thrust. Courting through most of the songs are allusions to a kind of astral, dreamlike soaring: "I'm floating into dreams/I'm floating back" (Paprika); "I'm going to lay down someplace shady/With dreamland coming/Dreamland, dreamland/dreamland . . . ." (Dreamland); "Dream on/Dream on/Dream on/Dream on" (Otis and Marlena); and, in the album's final tune and final line—"it's just in my dreams we fly/In my dreams we fly!" (The Silky Veils of Ar-dor). It surely is no coincidence that each of these songs represents a different facet of the Mitchell history—overlapping palimpsests of her journey from the past. Add the title track for a complete (and highly personal) account of that journey. Though overly intimate at times, I find these pieces vastly preferable to the coy, Dory Previn-esque glibness of Talk to Me and the pathetic sentiments of Off Night Backstreet (although even here she out-lines them with one of her most seductively chromatic melodies). Cotton Avenue and Otis and Marlena are spun off from Mitchell's growing fascination with black music/black culture; they come dangerously close to parody, saved on the first song by her sly humor and the raunchy bass lines of Jaco Pastorious, and in Otis by her gift for characterization.

There are three fairly extended non-verbal sections. I hesitate to say "instrumental" since one, the middle section of Paprika Plains, has a specific written reference, and another. Overture, employs extensively overdubbed wordless vocal meanderings. Overture is the kind of let's-see-what-we-can-do-next studio funmaking that is a joy to do, feels impressive as hell when it's finished, and ultimately winds up sounding just a bit self-indulgent six months later when it's released on an album. I suspect the artist/producer is considerably less charmed with it now than she was when she finished her mixdown. The Tenth World is only a little less self-indulgent. Obviously an improvisation, it really belongs to Arito Moreira and the other Latin percussionists who bring it to life here. Mitchell's after-the-fact sung accompaniment can only be called unnecessary and intrusive.

The extended orchestral interlude in Paprika Plains is another matter. That the entire piece is extremely significant to Mitchell is apparent from its length (more than sixteen minutes) and its elaborate production: a full orchestra playing dense, complex arrangements by gifted English composer Michael Gibbs. The interlude serves as counterpoint to a lengthy, dreamlike passage. She leads into it from a childhood reminiscence of Paprika Plains that uses familiar devices such as astral floating, sudden episodic shifts of place, bursts of violence, childhood flashbacks, and characters (in this case, Indians). Significantly, she chooses not to set the words to music; they are printed in the album liner, presumably for listeners to read as they hear the instrumental interlude.

It's all a provocative idea, though I'd wager few will bother to make the effort. The problem here is with the music. The starting point must have been Mitchell's dark, declamatory piano. Gibbs has constructed a setting for it that ranges from Mantovani-like string stringdlections to avant-gardish squeaks and squirms, with a few moments of genuine beauty in between. In fairness, he can't be blamed completely. His subject's music tends to use a lot of repeated pedal patterns that sound just fine on piano, but expanded to full orchestra are ground into a morass of immobility.

A few words of praise are in order for her accompanists, notably bassist Jaco Pastorious, drummer John Guerin, saxophonist Wayne Shorter, and assorted percussionists and singers. Much will be made of the presence of Pastorious and Shorter from Weather Report. The truth is that Mitchell pretty much knows what she wants and is now mature enough to choose the musicians who will give it to her. The game, in short, is all hers, regardless of who she selects to play with her.

A record with the size, scope, and ambitiousness of "Reckless Daughter" obviously can't be written off with the praise of a simple bravado or the damnation of an easy exeptive. Much of what Mitchell has tried here doesn't work at all. A lot more works very well indeed. Credit her, at least, with aiming for the sun, even if she only has managed to wind up in an eccentric solar orbit. That's still higher than most of us will ever get.

**Jackson Browne: Running on Empty.**


Jackson Browne's first live album constitutes a dramatic departure from the usual conventions of pop and rock concert recordings. First, instead of stage versions of familiar songs, there are ten new performances comprising Browne originals and—in a break from the format of his four studio LPs—collaborations and outside material. Secondly, he has taken a cinéma vérité approach by

Browne—a vinyl documentary
recording onstage, backstage, in hotel rooms, and in transit, carrying an early favorite metaphor, the road, to a literal extreme.

Browne is trying to break down the formality of the proscenium, starting before the show and moving at close quarters with the road crew and musicians. The remote recording equipment becomes more a 16-millimeter medium than a simple 2-inch tape affair, with producer Browne and engineer Greg LaDanyi serving as director and cameraman. In many respects, "Running on Empty" is closer to D. A. Pennebaker's "Don't Look Back," a stylized documentary on Dylan in the mid-'60s, than any live rock LP that I can think of.

With so many '70s rock and pop artists already dramatizing the heartbreak of making $30,000 a night, it's hard not to wince at the prospect of wading through an entire album devoted to backstage angst. Yet Browne managed to keep me involved for most of it, and that alone is a basic victory at least partially due to his imagination as a producer. At its most inspired, his documentary approach yields richly visual moments that capture complex transitions: After opening frontstage with the driving title tune, he slips into a backstage version of Danny O'Keefe's纾 effectiveness sketches the boredom and gradual frustration of the touring musician. A natural pause in the song lets the ambience of the concert hall and its murmuring audience fade in, and Browne's re-entry, now backed with his stage band, vividly illustrates the chorus' restless movement from town to town along a concert itinerary.

Less successful is his experimentation with varied narrators. Several songs were cowritten with members of his road crew and show Browne's central goal of extending the performance beyond the heroic front man. It works, at least ideologically, on Rosie, a chronicle of a crew member's casual romance with a groupie who "came for a star." But the technical limitations intrude on Browne's usually polished verse. I suspect that some of the overload details of certain scenes, along with a seriousness that threatens the project's quick-cutting pace, are the outcome of the songwriter's new emphasis on democracy.

Production is deceptively naturalistic. Onstage sound is clean but not razor-sharp, with some of the roughness of the hall mixes, and the blurred edges imposed by the ambience of each hall and its occupants are left in. Browne's concert band, comprising the Section and longtime accompanist David Lindley (on violin, lap steel guitar, and a "rare vocal appearance" of considerable hilarity on Maurice Williams' Stay), and backing vocals by Doug Heywood and Rosemary Butler are excellent.

Lonnie Donegan: Putting on the Style.
Adam Faith, producer. United Artists U ALA 827, $7.98. Tape: CA 827, $7.98. EA 827, $7.98.

At about the same time that the Kingston Trio was inspiring youngsters across the U.S. to strap on guitars and learn folk music, Lonnie Donegan, onetime banjo player in Chris Barber's traditional jazz band, was having the same effect on British youth. Furthermore, he was electrifying traditional music and adding drums and other heresies to it years before Bob Dylan and the Byrds did it Stateside. Clearly he was a seminal figure for what eventually became Sixties and Seventies British pop.

Key Britons have always acknowledged Donegan as an early influence, and "Putting on the Style" gives several of them a chance to pay their respects, as well as to play at their very best. Guests like Rory Gallagher, Elton John, and even Brian May cut loose impressively.
Gallagher, particularly, sounds as though he's been relieved of some great weight and allowed to play for a change. The tunes are old Donegan favorites—which means rocked up American Negro blues for the most part—including Rock Island Line, Have a Drink on Me, Frankie and Johnny, and Diggin' My Potatoes. His own performance is up to his usual enthusiastic standard, though one thinks he may have wished to do something a little less overdone from his repertoire. Occasionally, the arrangements sound as though he were trying a bit too hard to come up with a different slant this time around.


I still have mixed feelings about this album, even after many hearings. Roberta Flack is a brilliant ballad singer whose personal style—though not her backings—hovers only loosely around current American conventions. Her soft, almost throw-away intensity evokes memories of both true bossa-nova singing and the great French ballad style. She is, in fact, a vocalist of great craft who pays infinite attention to phrase-by-phrase detail.

But I'm bothered by a curiously stately—almost static—quality that too often substitutes for tenderness. It's a kind of self-absorption that focuses on her reactions to love rather than on the person loved. Added to a subdued but persistent vein of semiparody, it's disconcerting. Part of the problem is a contradiction between the control and pose of her voice and the persona projected by many of the lyrics. This Time I'll Be Sweeter (a title that is somewhat wistful thinking), has her singing, "Since you went away, I'm not the girl I used to be." Roberta Flack is a woman, and she sings like one. When she tries to be a girl she sounds coy, or at best, like a woman trying to find her way back to iron. Her voice and the persona projected at his sessions.

The truth is, "Blue Lights in the Basement" is full of second-rate or unsuitable songs. Melodically and lyrically, the one that best suits her is Eugene McDaniels' "multiplication" of the studio musician turned solo artist. After hour upon union-scale hour of suppressing his own musical ego to enhance someone else's, he must find a way of making a distinctive statement of his own. Very often it is so apparent that it takes more than a slick instrumental technique to do so.

In his work as a solo recording artist, Gale has yet to make his mark. The problems don't lie particularly with his guitar, for although his playing is plainly derivative—B. B. King and Albert King come to mind—he is somewhat economical of his performance of the 1947 country rocker Tennessee Saturday Night that does much to explain why the South will never rise again. Part of the reason why these pieces stand out is that they are the least tampered with. Too much else here has been smothered by turgid orchestration and ruinously sweet background voices (the producer always lets his secretaries sing at his sessions).

Hard-core Jerry Lee followers will reconstruct the greatness of this album, but casual listeners will be hard pressed to distinguish it from any number of run-of-the-mill Music City slop. And that's a shame, for all concerned. Perhaps we'll just have to wait till the fall of 1980, when Billy Swan brings his mobile recording unit to Pascagoula and cuts the album everybody needs: "Jerry Lee Lewis Live in Hell."
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I'm happy to report that the Pips do make it. They never stray from the big-time gospel/soul formulas—church-influenced leads, soupy harmonies, r&b horns, strings, the whole caboodle. But they lace them with continual tasty little touches that lift the arrangements out of the general rut into something genuinely stylish. Not all the time—there are string-laden tracks, mostly toward the end of Side 2 of the musical wallpaper type. Commercialism being what it is, they will probably make the singles charts, but even these are styled well.

For the most part the Pips avoid The Big-time Blahs, freshening what might have been mass-market subsoul numbers with felicities of harmony and rhythm that add up to some kind of renewal: Listen to the vocal bridge of At Last My Search Is Over. What's more, despite the inexorable strings and a drummer who sounds like he's bouncing a basketball, the freshness of the vocals often extends to the instrumental arrangements, notably the horn charts.

The whole thing comes together startlingly in Since I Found Love, a remarkably original rendering of some well-mapped musical territory. But even where the Pips stick to established procedures, sheer craft and quality often revivify them: There's nothing especially noteworthy about If I Could Bring Back Yesterday except the magnificent, exhilarating singing. And, within the standard r&b funk framework of pumping rhythm and fanfare brass riffs, hear what they do on Midnight Flight to Your Love and take heart.

J.S.R.

Sex Pistols: Never Mind the Bollocks


"Never Mind the Bollocks Here's the Sex Pistols" should fulfill the darkest fears of civilization's guardians. Those who have been looking for a target to leap upon with cries of "anthumanity!," "mindless resignation!," or plain old "slime and obscenity!," need seek no further. "Bollocks" has re-created the generation gap in its home country of England, where the sixteen-year-old blue-collar "school-leavers" chant, "This Fascist regime made you a moron" (God Save the Queen) and their parents are resigned to terminal anarchy on the homefront as described in Pretty Vacant. But to paraphrase Sinclair Lewis, can it happen here? If not, where does that leave Pistols Johnny Rotten, Paul Cook, Steve Jones, and Sid Vicious, not to mention ex-member and predominant co-writer Glen Matlock? The U.S. does not seem ready for another revolution of its youth. Our economic goals—at least for the Pistols' largely young, middle-class white audience—consist of used cars, cheap airplane charters, and a steady job. So if someone sings, "I'm a lazy sod" (Seventeen), our interpretation is that he wants to be, not has to be.

Fortunately for their management's devoutly wished U.S. conquest, "Bollocks" does not require the political prerequisites that accompanied it to the top of the English charts. It is a violently, single-mindedly rocking album, packed with the fury of frustration that fits naturally into the coming of age. Singer Rotten's charismatic word-twisting is effective even without the visual dimension of his direct sneer and hostile glare. He spares no mercy for his perceived villains, flailing out with "the problem is you!" (Problems) or abusing a factory girl who decides to have an abortion on Bodies. The latter, chock full of four-letter words and written with bassist Sid Vicious rather than Matlock, is an unsubtle indication that the Pistols' writings might be headed away from the artfully simple melodies of earlier singles such as Anarchy in the U.K.

One hopes that the group's ability to combine alluring rhythms with pointed lyrics remains in balance and that they write more songs as clever as EMI, a swift-kick attack upon their former British label. Rotten is a consummate musical actor who honestly believes his script, and on "Bollocks" he has found the ap-
propriate stage and players. So if he sneers, "I'm in love with my beautiful self," on *No Feelings*, his release invites the Pistols' audience, whether economically or personally blocked, to identify and praise themselves just for daring to defy the world's expectations.


The Trammps III. Ron Baker, Norman Harris, & Ron Kersey, producers. *Atlantic SD 19148*, $7.98. Tape: ● CS 19148, ● TP 19148, $7.98.

A classical critic once commented that a lot of baroque music was "style music," whose general baroqueness was far stronger than its individuality. The same is true of the numerous black male vocal groups whose tradition runs from the gospel quartets through the doo-woppers. Almost all of them combine polish and apparent conviction. Almost all of their lead singers work the gospel/soul vein competently. Almost all use standard show-band r&b and pop arrangements that provide a reassuring sense of familiarity.

The trouble is that by the time they make it to the top, most of these groups are so polished that their individual features have been worn smooth. This leaves a relatively narrow collection of arrangements, material, and cliches by which to judge them. All of which worsens when two of them fetch up the same producers. In fact, it's remarkable that the Temptations' and Trammps's new albums are as distinguishable from one another as they are.

Only a cad would cavil at the conventional worthiness of the Temptations' *It's Time for Love, Let's Live in Peace*, and *Think for Yourself* but only an innocent would expect anything musically interesting from them. *In a Lifetime* pumps along amiably with soul-ballad falsetto vocals and a rather endearingly portentous arrangement. So does *Can We Come and Share in Love*, but this time with a deep lead vocal instead of a high one. And so on, and on.

But "Hear to Tempt You" does have its moments of pure pleasure. One is the shout-for-joy boogie-woogie keyboards that support an exceptional vocal on *She's All I've Got*. Another is *Snake in the Grass* with its fine stinging quality, instrumental intelligence, and the subordination of polish to conviction.

The Trammps open with *The Night the Lights Went Out*, an implication that everybody spent the New York blackout gettin' sexy. Even though (or perhaps because) the singing and writing are at least two cuts above average, the theme is as offensive as it is dumb. But track by track, the Trammps come off far fresher than the Temptations. *Love per Hour* moves from the kind of early r&b singing that influenced the Beatles into some remarkably original double-tracked choral work. *People of the World, Rise*, which builds over almost ten minutes of gospel/funk, uses lead vocals similar to pre-Crossover Mighty Clouds of Joy. And so on, and—more positively this time—on. The album has its share of dreary tracks, notably *Living the Life*.

But taken as a whole the Trammps work the stylistic parameters of the field, cliches and all, with panache and imagination.


Although Stevie Wonder has already been the subject of at least three major anthologies from Motown (two in the

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past decade), this limited-edition package continues that label's curious pattern of re-essaying its artists' early careers. While "Looking Back" laboriously details Wonder's first decade with Motown on three discs, almost all of the material has been previously reissued. The format is strict chronology, and in that sense the package seems more like a jazz project that emphasizes the stylistic evolution of the artist.

But that evolution is largely confined here to Wonder as a vocalist. During his early years, he collaborated with a number of Motown's "arm" veterans, but in keeping with the label's rigid studio system he also sang the standards and any covers dictated by his producers. We do hear some early originals, and there are ample indications of Wonder's emerging production sense. Yet the album stops just at the early '70s switch from the conventional Motown production format to his producing and performing his own songs. That switch wasn't popular with his label, or with some critics who worried that Wonder was succumbing to the self-indulgent tenor of the times. And when he began to demonstrate the aesthetic wisdom behind the gamble, it was through a personalized style that transformed not only the R&B framework of the day, but the very politics of Motown.

That crucial transition is noted here only on the last half of Side 6. As for the material from the Motown vaults, fans of early Wonder songs will enjoy having cleanly mastered pressing of the label's formalized production sound, but the less archival one's taste, the more cumbersome the package seems.

Neither Motown nor Wonder can be accused of trying to pass this off as a "hits" package, but I do question the lack of any real liner information beyond recording dates, songwriters, and producers. Granted, a witty eulogy to the artist's genius isn't called for either. But the apparent historical bent of the collection does suggest that the musical context of the era might have been explored, along with some details about the musicians and writers behind the performances.

**JAZZ**

George Barnes and His Octet: The Un-collected. Wally Heider, producer. Hindsight HSR 106, $7.95 (Hindsight Records, Inc., P.O. Box 7114-R, Burbank, Ca. 91510).

George Barnes is known primarily for his relatively shrill later work, and on the basis of this disc alone the octet can take its place among the very best small jazz ensembles. It's unfortunate that the record-buying public could not have known of this aspect of Barnes's work while the group still existed and before the arrival of television sent him into the freelance studio world of New York. But he could not have a more glowing memorial than this set provides. J.S.W.


Ever since jazz records have been released from the three-minute time barrier imposed by the old 78s, one of their most consistent flaws has been the long-performance monotonity of small groups. Stan Getz, producer of this disc, has eliminated the problem by squeezing in thirteen selections that present Jimmie Rowles in various settings: as piano soloist; as an unusually affecting ballad singer (This Is All I Ask); as an off-the-wall comic vocalist (Rose Marie); in pia-no-saxophone duets with Getz (two lovely bits of Ellingtonia, What Am I Here For? and Serenade to Sweden); in quartets with Getz, Buster Williams on bass, and Elvin Jones on drums; and even in an appearance with Jon Hendricks' singing family plus Beverly Getz, Stan's daughter. Out of what might have been a jumble of hits and misses emerges a collection of glowing triumphs. Rowles has a husky, worn voice almost as inaudible as Irving Berlin's. ("You have to hug him to hear him," they say of Berlin.) But closely miked and with his subsequent heavy breathing, it is a surprisingly sensitive vehicle with a sensuously rounded quality that suggests Nat Cole. His piano

Thirty years after the fact, Barnes's arrangements sound fresh and vital, and the performances of pop standards and Barnes originals are carried off with precision and flair. His playing during this period had more color and shading and his relatively shrill later work, and on the basis of this disc alone the octet can take its place among the very best small jazz ensembles. It's unfortunate that the record-buying public could not have known of this aspect of Barnes's work while the group still existed and before the arrival of television sent him into the freelance studio world of New York. But he could not have a more glowing memorial than this set provides. J.S.W.

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playing is lightly ruminative, swinging openly on Wayne Shorter's *Lester Left Town*, spreading a gauzelike texture on a Tatum structure in an unaccompanied solo on *Body and Soul*.

For Getz, the sessions seem to have been a thoroughly refreshing experience. His swagger and surge, the arrogance of his musical stance, are in complete contrast to Rowles's reserve. But, in these circumstances, Getz had to temper what had become routine for him and, in the process, arrived at a warmer, essentially stronger, and more lyrical performance. The fact that he was not carrying the entire load himself—in fact, was just an added color on what is ostensibly Rowles's date—may have induced some of the fresh, relaxed, unstrained quality of his playing.

For the others involved, there are only modest opportunities to shine through. The most interesting thing about the Williams-Jones rhythm section, aside from its consistent excellence, is the opportunity it gives Jones to show off his largely overlooked sensitivity as an accompanist. And from Hendricks, his wife, and daughter (plus Miss Getz), there is a sampling of vocal unity that is even tighter and cleaner than, and at least as swinging as, the seminal Lambert, Hendricks, and Ross sound.


Perhaps the most persistently interesting aspect of jazz is its never-ending, evolutionary effort to define and redefine itself. Every time a new style, a new rhythm, a new way of hearing harmony or ornamenting melody seem to establish themselves, something new comes along to cause jazz musicians to refocus their vision and open their ears.

Vibraphonist Bobby Hutcherson has stayed in touch with the new winds blowing through the jazz world. He knows about disco jazz, jazz/rock, and all the other permutations that have helped bring about the jazz revival of recent years. But he also respects the other side of the artistic coin, which is the need to retain a sense of himself and his music, regardless of the changes taking place around him. Although much of "Knucklebean" is swept with the most contemporary crossover rhythms, to his credit Hutcherson does not fall into the endless, riff-oriented vamping that infects too much of today's jazz activities.

His playing on *Sundance Knows*, for example, is a masterly exploration of the marimba (an instrument rarely used in jazz), and one that gains coherence and interest with each rehearing. The performances of the musicians alongside him are equally rewarding. Freddie Hubbard sounds as good as I have heard him in recent years, especially on *Sundance*, where he flies high with the kind of tough, gritty, inventive playing that characterized his work of a decade ago. Saxophonist Hadley Caliman is also excellent; listen to his articulate, economical soloing on *Knucklebean*.

The rhythm section of George Cables, James Leary, and Eddie Marshall is all one could ask for, with Cables' piano a particularly valuable asset to the proceedings. But the most important element in this fine recording is Hutcherson's musical and aesthetic leadership. He has chosen a voice for himself that is contemporary without being faddish and timeless without being irrelevant. D.H.


Rob McConnell and the Boss Brass: *Big继续 on page 137*
The Renaissance of Cory Wells
by Todd Everett

Question. Was the late-Sixties band Three Dog Night composed exclusively of its three singers—Cory Wells, Danny Hutton, and Chuck Negron—or did it also include the four backup musicians that played with them? The public thought the former; the backup band insisted the latter. Generally, it was difficult to tell who was doing what at any particular time, since all three vocalists sang leads and liner information was consistently vague. The practices prevented open competition, perhaps, but represented poor planning for the individual members' future careers. Which may be one reason it has taken Wells so long to return to recording. In any case, "Touch Me" displays many of the virtues of his former band's best work and corrects that one major mistake: Wells's name and likeness are firmly established. There are no questions as to the star's identity.

Three Dog Night touted itself as being oriented toward pure entertainment. During a time of message music, other artists had causes such as dope, religion, and politics. But TDN was there to look good and make hit records. If the group had any secret other than the consummate musical skills of each member, it was its choice of material. To record other people's songs in those days wasn't considered particularly hip: Producers and publishers anticipated extra income from songwriting within the band; access to copyrights was and remains a strong consideration at contract-negotiation time. Yet very seldom did Wells, Negron, and Hutton succumb to the temptation to create and release original material—especially singles. They seemed more interested in finding surefire hits than in increasing their composer royalties. As a result, they wound up giving early exposure to Nilsson (One), Laura Nyro (Eli's Comin'), Hoyt Axton (Joy to the World), and Elton John (Lady Samantha), among many others. And few of the songs they recorded had been hits or were even known before. The ability to choose and edit well is often harder to come by than writing skill. Few understand that.

Wells and producer David Anderle do, and, according to Anderle, they have made a specific attempt to find new material. One could question the wisdom of such a decision, since familiar titles on an album are frequently helpful in gaining possible purchasers' attention. ("Hey, it says here that he does Dream On. Think I'll give it a listen... ") Some of the composers are reasonably known, but those names aren't included in the liner notes. The mostly likely to be recognized are David Gates, Troy Seals and Mentor Williams, Tom Snow, and Jay Graydon, though diehard TDN fans will give special significance to the inclusion of a composition by Hutton's replacement, Jay Gruska.

Like Wells's delivery, the songs are pure pop and they work. A couple of years ago, such polished compositions as Gates's Change of Heart and Gruska's Starlight might have been considered a bit old-fashioned. Today, in the wake of successes by Eric Carmen, Barry Manilow, and other commercially minded songsmiths, the songs and style are as current as the most recent Shaun Cassidy hit, and with even more across-the-board appeal.

With the exception of Wells's friend, bassist Dennis Belfield, the musicians are members of the highly capable Hollywood session crew that plays on practically every record in town. With Anderle at the helm, their playing seems much more intense and they provide a smooth and seamless backing for Wells's vocals and his material. With that in mind, "Touch Me" is an arresting solo debut by a highly reputed music-business veteran. It's good to have Cory Wells back, and future work may prove even more exciting.


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New Acts

BY JIM MELANSON


Baby Grand is another act with all the tools to break into the big time. David Kagan's singing is on the quirky, high-pitched side, but it comes off well and makes the material all that much more interesting. Rob Hyman is on keyboards and Eric Bazilian on guitar, and the rock sound is fresh and driving. Definitely worth the price of a record these days.


Blue Ash (Frank Secich, Bill Bartolin, and Jim Kendzor), whose debut album on Mercury in 1972 was followed by a five-year hiatus, has resurfaced. As British-influenced mainstream rockers, they should have little difficulty in finding their share of the spotlight today, especially if this release is any inkling of what's still to come. The cut Look at You Now is already attracting attention.


Singer/songwriter/pianist Castle has already scored success on the singles chart with the cut Ten to Eight. His style of delivery is good, yet not overly exciting. The somewhat laid-back material has a lot to do with my less-than-enthusiastic vote of confidence.


This four-man group could prove to be a real find for RCA—if the label would only learn how to promote new rock bands. The cuts Headliner and Shadow Boxing are naturals for FM airplay, with the former also showing potential for AM. Joe Lynn Turner's lead vocals are strong throughout, as is the group's use of harmony. The playing is tight enough for national acceptance, but expect it to get even better with experience.


An inauspicious solo debut at best for Sha Na Na member Denny Greene. The repertoire spans cabaret/pop to disco/r&b, but unfortunately the material doesn't make the diversity worth the effort. While Greene's voice is well trained, it hardly deserves the spotlight. Overall, a bland effort.


This is a concept LP from a group of studio and limelight musicians that includes Rod Argent, Dave Cousins, Ben E. King, Percy Jones, and new act Meatloaf. It's definitely worth a listen, though it probably won't get much commercial mileage. The blend of ethereal rock and Seventies pop makes for a tasty musical ebb and flow. Several of the vocal tracks are real grabbers, including those on Reaching Out and Why.


Sisters Leslie and Debbie Pearl come up with a well-defined pop effort here. The material ranges from perky, up-tempo numbers to nicely handled solo ballads by both women. If anything breaks them, it will probably be the cut Nobody Home.


While Ripple had a fairly successful LP on GRT, it has remained somewhat obscure. With this release, things should change, even if the added notoriety comes mainly in the disco/r&b arena. The group is especially inventive in laying down percussion tracks (check out the title cut), and, while it does fall comfortably into the disco mold, Ripple knows how to spice up a song to make it more interesting than most of that type.


Don't expect to be lifted too far off the ground with this five-man group of hard rockers who verge on the brink of punk. It's a no-frills flight that will make you wish you stayed home.


Well-known musician and producer Felix Cavaliere leads this trio, flanked by veteran drummer Jack Scarangella and guitarist Vinnie Curiano. (Ex-Mahavishnu player Rick Laird stands in on bass.) The playing skills throughout are excellent, but predictable rock material tends to drag the whole effort down. Still, their combined reputations are sure to draw attention.

The jazz world of the Twenties teemed with musicians of stature and imagination—the giants who laid the foundations for everything that has developed since. Fifty years later, we are in the unhappy situation of watching the great ones depart one by one. Louis Armstrong is gone. Coleman Hawkins is gone. Duke Ellington is gone.

But Earl Hines, the last of that significant era, is still actively and vibrantly with us, playing with undiminished brilliance. (Count Basie, at seventy-three, is his contemporary, but he did not become a force until the Thirties.) Moreover, unlike Armstrong, Hawkins, and Ellington, whose careers focused on their own personal development, Hines was significant in crucial areas beyond his own role as a pianist and bandleader. He was as important to the shaping of the jazz piano as Armstrong was to the trumpet and cant in crucial areas beyond his own role as a bandleader and Stimulating partner to Armstrong in the Hines band, in its best period, had an arranger, he was not as creative an orchestrator as Ellington; but the Hines band, in its best period, had an identity equal to Ellington’s or Basie’s, keyed to his use of the piano in a big band context. In addition, he was a close and stimulating partner to Armstrong in that musician’s classic small group recordings in the Twenties. And his band of the early Forties—which included Charlie Parker, Dizzy Gillespie, Billy Eckstine, and Sarah Vaughan—played an important role in the growth of bebop.

The world of Earl Hines is well worth exploring in detail. Stanley Dance has gone about it with a tape recorder, letting his subject tell his own story at length and adding brief recollections of twenty-one people who have had some connection with Hines. The merit of transcribed tapes is that they can catch the flavor and vernacular of an articulate talker such as Gillespie, saxophonist Budd Johnson, or Charlie Carpenter, a writer and manager. But the sight of a microphone can also make a speaker cautious.

Hines taped most of his reminiscences at home, unassisted. There was no one to give direction to his thoughts or to ask the probing questions about the revealing details that this rather guarded man would instinctively avoid. So his recollections not only ramble but they virtually bypass such high points as his recording sessions with Armstrong and the Parker-Gillespie period of his band. He avoids any detailed discussion about his relationships with Ed Fox, his manager in the Thirties (invariably cited as “a villain” by other interviewees) who locked Hines into a contract of virtual serfdom to several generations of the Fox family.

The supplementary interviews do relatively little to expand his own narrative. Most of them are short career biographies that start, typically, “I was born in Chicago on 1 September, 1911.” Some have virtually nothing to say about Hines, and one wonders why they were included. But a few, notably the Budd Johnson tape, are so full of shrewd wit and lusty spirits that one comes away wishing it had been those like Johnson who had been the subject of the book.

JOHN S. WILSON

THE SONGWRITER’S HANDBOOK. By Harvey Rachlin. Funk and Wagnalls, 172 pages, $8.95.

Unlike a great many music biz “how to make it” treatises, The Songwriter’s Handbook tells it pretty much like it is. Author Harvey Rachlin approaches songwriting in the Seventies not as a romanticized art form (although Sammy Cahn’s foreword would have us believe differently), but as a learned craft of wide application but limited demand.

Fortunately he spends little time on the Parker-Gillespie period of his band. In addition, he was a close and stimulating partner to Armstrong in that musician’s classic small group recordings in the Twenties. And his band of the early Forties—which included Charlie Parker, Dizzy Gillespie, Billy Eckstine, and Sarah Vaughan—played an important role in the growth of bebop.

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edge. Certainly the most comprehensive book on the business available to songwriters today.

It is by no means a literary masterpiece—easy digestion seems to have been a primary consideration. Which is to say that the chapter on copyright went down quite easily, if clumsily, while those covering melody, harmony, arranging, and any other theoretical areas were over-simplified to such an extent as to leave me screaming in pain. (Rachman must be a lyricist.) But that is only a small part of the whole—only thirteen pages, in fact. If you're serious about songwriting, you'll need to know the business it serves and how to approach it. Therein lies the value of The Songwriter's Handbook.

SUSAN ELLIOTT


This is a fine piece of work. Unfortunately, it ignores what has been happening in tape recording over the past few years. Granted, there are still many of us who are perfectly happy with two microphones and a quarter-track recorder, but the growth of the audio industry reflects a great deal more money invested and sophistication on the part of the consumer/hobbyist than is assumed here. It's almost as if Gardner's manuscript had been sitting on the publisher's shelf for the last ten years or so. Nonetheless, it still rates a place on your reading list, since good technique and an appreciation of the medium are never outmoded.

Gardner's style is clear and concise, and well-drawn block diagrams and illustrations of frequency response, polar patterns, possible studio setups, etc., are liberally supplied throughout. Chapter 6, "Recording and Reproduction," is handled with references to the newer chromium dioxide tape formulations as well as the more customary ferric oxide. Gardner explains what happens to an audio signal as it is recorded and reproduced, which contributes to an understanding of the importance of one tape type vs. another, or of knowing the biasing flexibility of your recorder. The chapter continues with a discussion of three- and one-motor machines, the nature and function of tape-transport systems, and a close look at the different types of motor drive assemblies.

A basic discussion of how to match your needs to your purchases is covered in the next chapter, with attention paid to pressure pads, spool sizes, flexibility of controls, and heads. This section also offers a good explanation of wow and flutter and sets out in graph form a "good" frequency-response curve for a hobbyist's recorder.

"Choice and Use of Microphones" is somewhat archaic, since it includes a full description of crystal, carbon, and ribbon mikes. Although I'm sure they are still being made, I haven't seen a crystal microphone in use for at least seven years. Dynamic (moving-coil) and condenser (capacitor) microphones are discussed as well, however, with illustrations of some modern models of very high quality. Polar patterns are examined, along with some general rules of thumb with respect to phasing and placement.

Chapters 4 and 5 concern themselves with mixing, monitoring, and improving a studio. But keep in mind that the book is not geared to rock & roll, multitracking, flangers, phasers, or digital delay. We're dealing exclusively with mono or two-track equipment. Gardner illustrates a number of simple mixers and studio setups, explains their functions, and offers some solid pointers for making maximum use of the equipment and space at hand. But again, he assumes only the most basic of circumstances.

The rest of Master Creative Tape Recording provides a well-rounded background in procedures for recording drama and music, for editing tape, and generally for coming up with a good final product. The book's simplicity is gratifying and makes a rather complex pursuit easier to follow than many of its kind. It will not, alas, teach you to master anything, but it will show you how to approach a very rewarding experience with a healthy understanding of its possibilities. Gardner's writing is friendly, respectful, and graced with warmth.

FRED MILLER


Nick Tosches' Country is a revisionist, and very personal, history of country music. To the common wisdom that Hank Williams is its most accomplished creator, Tosches posits Jerry Lee Lewis. To those who see country as a guileless art rooted in Christian ethics, he reveals that Roy Acuff—the self-proclaimed King of Country Music and yo-yo partner of Richard Nixon—has recorded some of the raunchiest songs you'll ever hear. In between trenchant critical judgments and witty anecdotes, Tosches traces the influence of other popular musics on country, among them folk balladry, minstrelsy, jazz, and rock & roll. For such an ambitious project, the book is neatly packaged and liberally sprinkled with startling photographs, from a pre-teen George Jones to a page from a Johnny Cash "Christian comic book."
Along with rock critic R. Meltzer, Tosches has perfected a breezy scholarship, an opinionated straightforwardness that gets the facts across with a minimum of gravity and a maximum of dramatic effect. But though effective, his method leads him to assert historical precedents without bothering to cite sources. This can get shaky, as when he coolly notes that Uncle Dave Macon was the first performer to use the word "rock," in the sense of rock & roll, in 1927. A happier eccentricity is his unslakable interest in the risque, and frequently horrifying, side of a popular music that prides itself on its wholesomeness. Tales of drug abuse, murder, racism, and frequently horrifying, nearly all of them too good and too ob-scene to repeat here, suffuse Country and the numbing fumes of alcohol rise from every page. Whenever possible, Tosches reserves the worst fate for those performers he dislikes or thinks overrated. He ignores them. Thus giants of the greatest honky-tonk singers in the past fifteen years, many of the most visible contemporary figures go unnoted. He approves of Lefty Frizzell and praises Webb Pierce as "one of the greatest honky-tonk singers in the '50s" but never discusses their contribu-tions in any detail; in a history of country a neglected figure like Pierce could use some attention.

Another flaw is more grievous. Tosches slights women as much as they are slighted in the music (and the business) itself. The mile-wide streak of misogyny that runs through country music is a fasci-nating, if repulsive, subject. But the fascinatingly repulsive is exactly what Tosches handles so well—he is usually humane and witty and severe. His book is the weaker for merely recording the abuse without condemnation, or at least analysis, as he does with everything else that seems to call for it.

At its frequent best, however, Country reads like a great detective novel, replete with tense narrative and wit that is alternately humorous and withering wise-cracks. And certainly no one has written better about the subgenre of honky-tonk. Country may not be definitive, but it is consistently enlightening.

KEN TUCKER

Country never pretends to objectivity. But though effective, his method leads him to assert historical precedents without bothering to cite sources. This can get shaky, as when he coolly notes that Uncle Dave Macon was the first performer to use the word "rock," in the sense of rock & roll, in 1927. A happier eccentricity is his unslakable interest in the risque, and frequently horrifying, side of a popular music that prides itself on its wholesomeness. Tales of drug abuse, murder, racism, and frequently horrifying, nearly all of them too good and too ob-scene to repeat here, suffuse Country and the numbing fumes of alcohol rise from every page. Whenever possible, Tosches reserves the worst fate for those performers he dislikes or thinks overrated. He ignores them. Thus giants of the greatest honky-tonk singers in the past fifteen years, many of the most visible contemporary figures go unnoted. He approves of Lefty Frizzell and praises Webb Pierce as "one of the greatest honky-tonk singers in the '50s" but never discusses their contribu-tions in any detail; in a history of country a neglected figure like Pierce could use some attention.

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KEN TUCKER

Continued from page 131


Despite the controversial nature of the McLuhan dictum, "The medium is the message," it is hard to deny that the two interact quite a lot. A case in point is the pairing of Harry James and his band on this latest direct-to-disc album. In the ex-périence of this reviewer at least, jazz bands don't usually make a point of sud-den shifts from loud to soft. There is some variation in dynamics, of course, but they are not usually extreme or abrupt. And even if they were, the com-pression that is applied to most record-ings would make them pretty tame, if not practically wipe them out.

Sheffield's direct cuts have a very wide dynamic range, and James & Company really take advantage of it with dramatic changes in level and mood within a single number as well as from one num-ber to the next. The Footstonner, the first cut on Side 1, sets the tone for the collection by starting with a piano/bass/ rhythm background that seems louder than normal and therefore ambiguous as to function—until the brasses start up. Then we find out what the dynamic range is to be.

The presence of the recording is astonishing and complements the polished professionalism of the group. Passing as it does through a set of selections that demonstrate enormous breadth of style, the album represents a kind of tour de force. From time to time the polish threatens to lapse into slickness and the ease into detachment, but somehow the free-swinging wins out in the end. This is a truly enjoyable record that you can listen to long after you have tired of check-ing out your high fidelity system.

Rob McConnell and the Boss Brass present an entirely different breed of jazz playing. Where James is cool and Apol-lonian, McConnell is frenetic and Dionysian. Rather than dancing along gracefully, the Boss Brass rides a beat that seems driven and almost eager to break out of control. Over this the solo lines are active but with a somewhat in-terceptive complexity and a tendency to collide in strikingly dissonant harmonies. In a sense, the entire album, also cut direct to disc, is a showcase, piece by piece, of the Porgy and Bess Suite, which occupies all of Side 4, is a particularly dazzling exhibition. The band charges through the various moods and scenes of Gershwin's opera at a whirlwind pace that leaves the listener breathless. The presence and clarity of the recording are excellent, compromised just slightly by the fact that the electric instruments are mixed (or panned) in without a clear sense of location with respect to the others. H.R.
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I must confess I do not understand music publishers' current mania for printing only the most literal transcriptions of recording artists' performances—complete with cooing, grunting, falsettos, "uh-huhs," and other vocal embellishments. It's easy for the recording artist to handle such backphrasing, because he's singing to a rhythm track. But what purpose does it serve to represent all of this in a folio? Why can't we simply purchase the words and music as originally conceived by the songwriter?

The home guitarist should have no problem, since he merely reads the chord symbols and strums along as he sings. But it's another story for pianists who, by the way, comprise the majority of folio purchasers. The left hand combines bass guitar and drum figures while the right hand handles rhythm-guitar "chinks" and the melody. Now, when this melody is overloaded with the singer's extraneous vocalises and highly stylized over-the-bar-line syncopations, the piano arrangement becomes correspondingly cluttered with sixteenth and thirty-second notes—all of which is very difficult to read, not to mention discouraging. If the folio's contents are so mediocre that they require a specific singer's personal interpretation to be salable, maybe they shouldn't be printed at all. What do you think?

Joan Baez: Blowin' Away. A.P., 10 songs, $5.95.

Joan Baez writes of experiences so personal that we are almost reluctant to intrude on her ruminations. Political enemies, family friends, and the folio purchaser alike are inundated in a sea of sensitivity and a tidal wave of nouns, messages for guitar and synthesizer, so a group effort is in order here as well. May the Force be with you on all of the numbers require alto sax as well. The Breckers are proponents of multi-level chords and startling meter changes. All very exciting, but definitely not for music school dropouts.

On the other hand, if you happen to have a symphony orchestra, a few synthesizers, and a ten-part vocal choir hangin' out on your back doorstep, you might want to attempt Alan Parsons' "I Robot," a futuristic musical approach to Everyman. The arrangements are by Andrew Powell, the words and music by Parsons and Eric Woolfson, and the printed copyright notices almost full length librettos in themselves. The ELP folio is theoretically notated for piano and voice, but transcribers Keith Emerson and John Curtin have indicated passages for guitar and synthesizer, so a group effort is in order here as well. May the Force be with you on all of the above.

J. Geils: Monkey Island. WBP, 9 songs, $5.95.

In folio form, this usually dynamic band makes a rather tepid excursion. The medium-rock music is intelligently notated but generally lackluster, the lyrics are of the "I'd like to tell you how I feel, baby" school, to which the obvious reply is "So do it, already!" Furthermore, murky black-and-gray photographs printed on black stock do nothing to enhance the appearance of bearded, sun-glassed musicians.

David Bowie: Low. WBP, 17 songs, $9.95.

Is there any truth to the rumor that the Man Who Fell to Earth was really the Warner Bros. executive who made the decision to publish this fiasco? Unless you feel that eight back-to-back photos of Mr. Bowie are worth $6.95, you will find very little of value here.

The Brecker Bros. . . . and All Their Jazz. A.P., 18 songs, $6.95.

The Alan Parsons Project: 1 Robot. A.P., 10 songs, $6.95.

Emerson, Lake & Palmer: ELP. WBP, 7 songs, $6.95.

Several of this month's publications need a little help from your most adept friends. The cover of "The Brecker Bros. . . ." says that all their jazz is transcribed for trumpet, tenor sax, and small ensemble, but I found that at least eight of the numbers require alto sax as well. The Breckers are proponents of multi-level chords and startling meter changes. All very exciting, but definitely not for music school dropouts.

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New Big 76. WBP, 76 songs, $6.95.

Another Warner Bros. giant for the with-it set. I wish "76" referred to the earliest year any of these goodies was published, but unfortunately Warner must still be fulfilling contractual obligations to the Beatles. We greet again for the umpteenth time The Long and Winding Road from 1970 (not on page 220, as the index would have us believe) and early Sixties relics like Hard Day's Night and All My Loving. Not to complain. The folio is crammed with recent chart-busters including Barbra Streisand's Evergreen, ABBA's Dancing Queen, and Alan O'Day's Undercover Angel. This is a good collection, and the price is right.


Oh boy. Shall we be scholarly? Well, then, it's like this: The language of funk is spoken in a combination of percussive effects not obtainable on the piano. Similarly, the sounds of Arps and Moogs contribute to the listener's aural enjoyment but cannot be truly represented in present-day musical notation. For these reasons, groups like Parliament should remain on the turntable or in the concert hall. The exuberance of the performers is commendable but, alas, not contagious.

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