Two New Bette Midler Albums • Pop Music in the Eighties
A Talk with Charlie Daniels • A Dozen Digital Demo Discs

EQUIPMENT TEST REPORTS: Hafler DH-200 Power Amplifier
Polk Model 10 Speaker System • Sanyo Plus 75 AM/FM Stereo Receiver
Technics ST-8077 AM/FM Stereo Tuner • Shure SC39ED Phono Cartridge

Your Audio/Visual Future: the Coming Digital Decade

WITH ONLY ONE EXCEPTION, THIS IS THE MOST REMARKABLE TAPE DECK IN THE WORLD.
But without exception it's the most remarkable cassette deck.

Today, a thousand dollars or more is standard fare for a professional quality cassette deck. But when Pioneer designed the new CT-F1250, they not only raised the performance standards of high quality decks, they also lowered the standard price.

Metal tape capability is something most new high quality cassette decks have in common. But while many of them have just been modified for this advancement, the Pioneer CT-F1250 has been specially designed for it.

Instead of the two heads found in most metal capable tape decks, the CT-F1250 has three. And it's these three heads that keep us way ahead of the competition.

Our new "small window" erase head makes a big difference in making sure all metal tapes are wiped completely clean. And our Uni-Crystal Ferrite recording and playback heads give you greater frequency response and better wear-resistance than the ordinary ferrite and Sendust alloy heads you'll find on most other tape decks.

But you don't get distortion-free recordings just by using your heads.

Instead of the single capstan tape transport system you'll find on some tape decks that are nearly twice the price, the CT-F1250 has a closed-loop dual capstan system, similar to that found in our remarkable RT-909 open-reel deck. This system keeps the tape in perfect contact with the heads at all times. So you are assured of getting everything that's on the tape. Nothing more; nothing less. What's more, the CT-F1250 has a Quartz-Locked Direct Drive capstan motor that senses the slightest deviation in speed and automatically corrects it to keep wow and flutter down to an unbelievable 0.03%.

It's engineering innovations like these that make the CT-F1250 so remarkable. But equally remarkable are the features that make the CT-F1250 so easy to operate.

Like our specially engineered Tape Calibration System that lets you quickly set bias level, Dolby adjustment, and record equalization for the best possible signal-to-noise ratio, the lowest distortion, and the best high frequency response.

And our 24 segment Fluroscan meter that works on Pioneer's own microprocessor to give you a more accurate reading of what you're listening to. It even has Peak, Peak Hold, and Average Buttons that let you record without fear of overload.

In addition Pioneer's CT-F1250 has a digital brain with a memory that controls four different memory functions. Plus pitch control. Mic/line mixing. Independent left/right input/output controls. And more.

By now, it must be obvious that the CT-F1250 was designed to push the limits of cassette deck performance. But only Pioneer would do it, without pushing up cassette deck prices.
But without exception it's the most remarkable reel-to-reel.

Today, many audio manufacturers are putting a lot less into their tape decks and charging a lot more for them. But when Pioneer designed their new RT-909 open-reel tape deck they made certain it had every conceivable feature an audiophile could expect.

And one feature that was totally unexpected. A reasonable price.

Even if you pay $1500 or more for a so-called "professional" quality tape deck, you'll probably still be getting a conventional single capstan tape transport system that is prone to wow and flutter.

Pioneer's RT-909 has a specially designed closed-loop dual capstan system that isolates the tape at the heads from any external interference. So you get constant tape-to-head contact. And constant, clear, accurate sound.

And while many of the expensive new tape decks have old-fashioned drive systems that drive up heat and distortion, the RT-909 doesn't. Instead, it has a far more accurate DC motor that generates its own frequency to correct any variations in tape speed. And keeps wow and flutter down to an unheard of 0.04% at 7½ ips.

What's more, the drive system of the RT-909 is unaffected by fluctuations in voltage. So a drop in voltage doesn't mean a drop in performance. The RT-909 also has a logic system that ensures smooth, accurate speed change.

Most professional quality tape decks are designed for use outside the home. So the convenience features most audiophiles enjoy are nowhere to be found. The RT-909, on the other hand, offers automatic reverse, automatic repeat, and a timer controllable mechanism that lets you record a midnight concert even if you can't stay awake for it.

Examine our heads and you'll see Pioneer engineers at their very best. Our playback heads, for example, have a new "contourless" design that makes them more sensitive. They increase frequency response upwards to 28,000 hertz, and extend it all the way down to 20 hertz. So you not only get greater range than any other tape deck, but also any other musical instrument.

Of course, these features alone would make Pioneer's RT-909 quite a remarkable tape deck.

But the RT-909 also has a Fluroscan metering system that gives you an instantaneous picture of what you're listening to. A pitch control that lets you listen to music in perfect pitch even if it was far from perfectly recorded. Four different bias/equalization selections so you can use many tapes and get maximum performance from them all.

Obviously these advancements are very impressive. But there's still one thing even more remarkable than the technology we feature. It's the price we feature.
Empire's EDR.9
The Phono Cartridge Designed for
Today's Audiophile Recordings

Direct-to-Disc and digital recording have added a fantastic new dimension to the listening experience. Greater dynamic range, detail, stereo imaging, lower distortion and increased signal-to-noise ratio are just a few of the phrases used to describe the advantages of these new technologies.

In order to capture all the benefits of these recordings, you should have a phono cartridge specifically designed to reproduce every bit of information with utmost precision and clarity and the least amount of record wear.

The Empire EDR.9 is that cartridge. Although just recently introduced, it is already being hailed as a breakthrough by audiophiles, not only in the U.S., but in such foreign markets as Japan, Germany, England, France, Switzerland and Sweden.

What makes the EDR.9 different?

1. Within the cantilever tube, we added a mechanical equalizer. It serves two purposes: (1) to cancel the natural resonance of the cantilever tube, and (2) to improve the overall transient response of the cartridge. The end result is a stylus assembly that has a mechanically flat frequency response. The frequency response extends from the 20Hz to 35Hz with a deviation of no more than ±1.75 dB. No other magnetic cartridge has that kind of performance. We call this stylus assembly an "Inertially Damped Tuned Stylus," the refinement of which took over 6 years.

2. In order to reproduce a groove containing extreme high frequency musical overtones, the stylus tip must have small enough dimensions to fit within the high frequency portion of the groove. Yet, the smaller the stylus tip, the greater the pressure applied to the record surface and the more severe the record wear. In the EDR.9, we have responded to these conflicting requirements by developing a stylus that has the proper dimensions from side-to-side, a much smaller dimension from front-to-back, and a very large, low pressure degree of contact between stylus and groove top-to-bottom. The net result of this large contact area, which engineers call a "footprint," is that the stylus of the EDR.9 can track musical signals to the limits of audibility and beyond, yet has the lowest record wear of any cartridge presently available. The stylus shape of the EDR.9 is called L.A.C. for "Large Area of Contact."

3. Conventional cartridges exhibit radical changes in their frequency response when connected to different preamplifiers. This is because the load conditions—the amounts of capacitance and resistance provided by the preamp—vary tremendously from one preamp to another, and from turntable to turntable. Consequently, most phono cartridges, even expensive ones, have their frequency response determined essentially by chance, depending on the system they are connected to.

But the electrical elements of the EDR.9 have been designed to remain unaffected by any normal variations in load capacitance or resistance. Thus, the EDR.9 maintains its smooth frequency response and accurate transient-reproduction ability in any music system, irrespective of loading conditions.

4. Then, as a final test of performance, we listen to every EDR.9 to make certain it sounds as good as it tests. At $200, the EDR.9 is expensive, but then again, so are your records.

For more detailed information and test reports, write to:
Empire Scientific Corp.
Garden City, NY 11530

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COVER: Frederic Marvin

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Bestow a careful gift on someone who likes music.

Record Ecology starts with the DiscKit.

Record Ecology—total record care—is essential for the quality and longevity of phonograph records. Discwasher products protect valuable record collections worldwide, and these same products are packaged together as the DiscKit.

DiscKit combines, in an elegant package, four of the renowned Discwasher record care products that provide Record Ecology:

- the Discwasher D3 Record Cleaning System
- the SC-1 Precision Stylus Cleaner for quality phonograph needles
- the Zerostat Anti-Static Instrument with test bulb
- the Discorganizer walnut tray and cover for dust-free storage

(All available separately)

There are no substitutes for Discwasher products. Ask for DiscKit at quality record and audio dealers. When music counts, Discwasher cares.
A VIDEODISC JUKEBOX is one of the new things coming up in the Digital Decade. It will contain fifty 7-inch videodiscs, each providing ten minutes of sight and sound. Developed by General Corp. of Japan and distributed here by Showtime Systems International, the jukebox will have a 25- or 30-inch screen (measured diagonally), and sound of hi-fi quality is claimed for it. It will be test marketed under several trade names early in 1980, and will probably be seen first in record stores, where it will show promotional material for a wide variety of popular musicians.

EXXON'S GREAT PERFORMANCES ON PBS include Gounod's Faust from Lyric Opera of Chicago on January 2. Alfredo Kraus, Mirella Freni, and Nicolai Ghiaurov head the cast; Bruno Bartoletti conducts. On January 14, Luciano Pavarotti will sing a program of arias with the New York Philharmonic conducted by Zubin Mehta in the Live from Lincoln Center series. In mid-January most Public Broadcasting Service stations will carry a series of six master classes Pavarotti taught at the Juilliard School. Check your local station for dates and times.

VIDEO NEWS: Imports of home videotape recorder/players in the first nine months of 1979 totaled 407,338 units, up 8.5 per cent over the same period in 1978. That must be why Billboard, the leading trade magazine for the record industry, has begun publishing a chart of sales of prerecorded videocassettes. Leading the Top Forty are Butch Cassidy and the Sundance Kid, M*A*S*H, The Sound of Music, The African Queen, The Godfather, and Saturday Night Fever. Usefulness of the chart may be moot since all X-rated product is excluded.

ROSA PONSELLE'S FAREWELL PERFORMANCE with the Metropolitan Opera, singing the title role in Bizet's Carmen, has been issued as the seventh in the Met's series of Historic Broadcast Recordings. The performance was broadcast April 17, 1937. The cast includes René Maizon, Hilda Burke, and Julius Huenh. Gennaro Papi conducts. The set is available as a bonus to those who contribute $125 or more to the Metropolitan Opera Fund, Box 930, New York, N.Y. 10023.

THE INSTITUTE OF HIGH FIDELITY has merged with the Electronic Industries Association, becoming a part of EIA's Consumer Electronics Group. All present IHF programs will be maintained, and the public benefit from the merger is that more strength can be given by the larger organization to the promulgation of present IHF standards for measurement and specifications of audio components as well as to the generation of new standards.

ALBUMS CERTIFIED PLATINUM BY THE RIAA recently include the movie soundtrack "The Kids Are Alright" (MCA) by the Who, "Disco Nights" (Arista) by QG, and "Evolution" (CBS) by Journey. Recent gold certifications have gone to "Ronnie Milsap Live" (RCA), "Devotion" (A&M) by LTD, and "The Joy of Christmas" (CBS) by the Mormon Tabernacle Choir. Of course.

SEVERAL 13-WEEK CLASSICAL MUSIC SERIES begin on National Public Radio stations in January. "Grand Piano" will feature interviews and performances by Dickran Atamian, Jorge Bolet, Aldo Ciccolini, and others. "International Concert Hall" features orchestras from such cities as Sydney, Zurich, and Helsinki. Chamber groups and soloists are heard on "NPR Recital Hall." And there is a series of five concerts by the Berlin Philharmonic led by Stanislaw Skrowaczewski, Zubin Mehta, Bernard Haitink, and others.

MARIANNE FAITHFULL'S COMEBACK ALBUM "Broken English," just out on Island Records, has had distribution problems in Europe because neither EMI nor CBS, which usually handle Island releases, will touch it. The reason? One of the songs, Why D'Ya Do It?, features the Sixties star in a jealous rage uttering the kind of English we can't print here. Undaunted, Island plans to release the track as a 12-inch disco single.

EIGHTEEN DAILY/WEEKLY TIMER SETTINGS can be provided by Texas Instruments' TMS1121, an integrated circuit that acts both as a digital clock and a timer. Soon to be used in the next generation of audio-control accessories and home videotape recorders, it also displays time (a.m. or p.m.), days of the week, and the timer settings.
Speaking of Music...

By William Anderson

DIGITAL DECADE

Victor Hugo may have been the first to point out that nothing is stronger than an idea whose time has come, but he didn't volunteer to explain what it is that makes that time come. In the case of the digital technology that is about to revolutionize both audio and video recording, there are several possibilities. The recording industry may, for example, have tired of fighting a losing battle to produce quality discs by the analog method and decided to change over to a technology that would solve many problems (partly technical, partly economic) all at once. Or it may have decided to do something irrevocable about piracy and counterfeiting by embracing a format that will (so far, anyway) foil about piracy and counterfeiting by embracing a format that will (so far, anyway) foil

Whatever the reason, the Big Change is upon us, perhaps a little sooner than even the most sanguine prophets had expected. At least one devil's advocate has suggested to me that the arrival of sonically faultless discs that are digitally recorded and pressed for decoding and playback in the home will mean the end of component audio as we have known it. Not on your tintype. For one thing. The move to all-digital (and particularly to audio/video) recording will take a little time and may never be total anyway. Popular superstars can confidently expect to be recorded first, and basic-repertoire warhorses will get the nod in the classical area. Don't, in other words, hold your breath until, say, the Masses of Josquin des Prez reach videodisc, and don't expect to see any fresh-from-the-garage rock groups so honored either. A lot of recording, for some time to come and for reasons largely economic, will continue to be either of the straight-analog or the digital-tape to analog-disc variety, and there will be plenty for component hi-fi to do.

More important, however, is the central role component audio will necessarily play within the new videodisc technology. Videodisc machines are designed to play back through ordinary TV sets whose sonic inwards—amplifiers and speakers—leave much to be desired. But TV manufacturers are wed (for better or worse) to a mass market that is quite content with the sound it gets already. The sonically particular audiophile who wants to make the most of the videodisc's splendid digital potential will therefore have to color in that part of the picture himself with high-quality speakers and amplifiers, equalizers, reverb units, and what not else, making both the video turntable and the TV screen just two more components in his total setup.

My devil's advocate was also of the opinion that the videodisc is a threat to free TV. Not likely, though it will change it somewhat. There will continue to be news/weather-sports, presidential tubechats, soap, game shows, and other natural disasters that will never see videodisc, but broadcasters will be delighted to shrug off the heavy burden of all that "cultural" and "public interest" programming that only guilt or the growing of FCC watchdogs has persuaded them to pick up in the first place.

What I would like to know, however, is who will be the first manufacturer to market a stereo TV tuner for the American audiophile, and who will be the first domestic broadcaster to put out a low-distortion, 15-kHz-bandwidth stereo signal to pacify me during the time it's going to take me to build up a videodisc library?

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STEREO REVIEW
MEMOREX HIGH BIAS TEST NO. 2.

WHICH HIGH BIAS TAPE WINS WITH “LUCILLE”?

Select any blues solo where B.B. King really lets "Lucille" sing, and record it on your favorite high bias tape.

Now record the same solo on MEMOREX HIGH BIAS tape, and listen to the two tapes back to back.

We're convinced you'll have a new favorite for two important reasons:

1. At standard record levels, no high bias tape has a flatter response across the entire frequency range.
2. The signal/noise ratio of MEMOREX HIGH BIAS is unsurpassed by any other high bias tape at the critical high end.

In short, you can't find a high bias cassette that gives you truer reproduction. And, after all, isn't that what you buy a high bias tape for?

Is it live, or is it MEMOREX

The legendary "Lucille" is a Gibson ES 355 made specially for B.B. King.

For unbeatable performance in a normal bias tape, look for Memorex with MRX Oxide in the black package.
Recent developments have revolutionized tape technology. The new Fisher CR4029 cassette deck, with an array of features you thought were still in the future, can now make recordings in your home that rival the product of professional studios. Equally important, the CR4029 offers a wide range of choices that, until now, were unavailable. Some of the new cassette decks offer one or two of these technological innovations—Fisher offers them all in one integrated package.

**TWO SPEED OPERATION.**
You can use the CR4029 at the standard 1 7/8 ips speed and you'll have outstanding recordings. But that's just the beginning. Switch to the new high-speed 33/4 ips and the CR4029 delivers an incredible 30Hz-20kHz ± 3 dB frequency response (using normal tape). What's more, recording at high speed drastically reduces wow and flutter and tape dropout. Off-the-air and off-the-disc recordings will astound you, and even surprise your friends who own reel to reel recorders. (Since a C90 cassette will record a full album at 3 3/4 ips, high speed recording is still economical.) But—there's more.

**METAL TAPE.** Another of the marvelous innovations is metal tape. Why has it become so important? Our chart shows why. Metal tape demonstrably improves frequency response. Combine it with the new high speed and you'll get a hard-to-believe 30Hz-25kHz ± 3 dB frequency response with virtual freedom from distortion. You'll also be able to record at higher levels. (With normal tape and standard speed, you have to record at lower levels to prevent tape saturation and consequent distortion.)

**THREE VHT/SENDUST HEADS WITH DUAL PROCESS DOLBY.** All this new technology requires new recording, playback and erase heads. So Fisher engineers came up with our new VHT heads. Made of a special micro-fine, high density particle formulation, they bring out the best potential of metal tape and high speed. Because the
THE CR4029 HAS ALL THE OPTIONS. Why have only part of the new tape technology when you can have all of it? Using the CR4029 three-head system you can use metal tape at the standard 1 1/4 ips speed, combining high performance with long play. Or use normal tape at the new 3 3/4 ips speed for both economy and superior performance. Or choose the ultimate: metal tape at high speed 3 3/4 ips, and exceed the expectations of the most critical enthusiasts.

IT'S WHAT YOU'D EXPECT FROM THE NEW FISHER. We invented High Fidelity over 40 years ago. We've never stopped moving ahead. The CR4029 is a perfect example. Part of the new Fisher. Where the only thing about us that's old is our tradition of quality and craftsmanship.

CR4029 is a three-head design, each head can be optimized for a specific function. There's a wide 4 μm gap VHT record head for the best possible signal-to-noise ratio. A narrow 1 μm gap VHT playback head improves frequency response. And a Sendust alloy erase head overcomes the problem of hard-to-erase metal tape. The separate record and playback heads allow you to monitor as you record—an absolute must for serious recording. And Dual Process Dolby gives you the advantage of Dolby noise reduction in both the record/playback and off-the-tape monitoring mode.

**SPECIFICATIONS:**
- **Frequency Response 1 1/4 ips**: 30 Hz - 16 kHz
- **Total Harmonic Distortion at OVU**:
  - 1 1/4 ips: 1.5%
  - 3 3/4 ips: 1.2%

**Tape Selector Switch**: Normal, CrO₂, FeCr, Metal

**Bias Fine Adjustment**: ± 20%
Never has one speaker system incorporated so many aspects of the state of the art.

The Infinity Reference Standard 4.5

This is a system of breathtaking clarity and detail, yet capable of the awesome punch and power demanded by the finest contemporary digital and direct-to-disc recordings.

The Reference Standard 4.5 frees the intimate warmth of the human voice, the robust sheen of the strings, the fiery attack of the brass, the stab and snap of the bass. The speakers seem to disappear, revealing a concert stage breathing life, delicacy and fury. You hear the musicians, not the speakers.

How does the 4.5 work its musical miracles? The profoundly accurate bass and midbass are partly the result of a remarkable new cone material, polypropylene. It has dramatically less mass, yet significantly greater internal damping than paper cones or other exotic materials. Our polypropylene piston, combined with our exclusive Infinity/Watkins dual-voice-coil woofer principle creates bass frequencies with the snap and definition of the finest dipoles, yet retains the ultra-low frequency response (flat to 23 Hz) that has made Infinity famous.

The transparent crystalline treble issues from our world-acclaimed EMIT Tweeters in dipole array. Midrange warmth, smoothness and unprecedented definition are the progeny of our lustrous new dipole EMIM Electromagnetic Induction Midranges. Like the EMITs, they employ powerful magnets of rare-earth samarium cobalt and etched voice-coils on low-mass diaphragms.

A separate electronic crossover/equalization unit allows you control over variable source material and room anomalies, either in single or bi-amp mode.

A remarkable technological story. And like all great stories, this one ends where it began: with the music. Which is the real reason you should spend $3000 on the Infinity state-of-the-art Reference Standard 4.5.

We get you back to what it's all about. Music.

For the nearest dealer's name and address, phone toll-free 800-623-5244, or from California, 800-382-3372.
CIRCLE NO. 29 ON READER SERVICE CARD
FM Broadcast Quality

- Robert Orban's fine and timely November article on FM signal quality seems to make the point that greater loudness will get higher ratings. He can't mean that. It has been my experience (and probably his too) that the reverse is true: "loudness wars" kill ratings. The fact is that quality sells. The only problem is that the very people who say they "live by the rating book" don't really believe in it; they want loudness.

I was chief engineer for a "beautiful music" station in Louisville, and my experience was that every improvement in signal quality and increase in dynamic range produced higher ratings, though management perceived these increases as due to some other factor. Most of the listeners to stations with this type of format are women who listen for very long periods of time. To keep them tuned in, the distortion must be far below the minimum FCC requirements and pumping/limiting must be inaudible. (I might add that we used the Optimod/FM system designed by Mr. Orban and described in the article. It was beyond compare: truly state-of-the-art.)

LOUIS BORNWASSER
Prospect, Ky.

Mr. Orban's point was not that greater loudness produces higher ratings, but the same as reader Bornwasser's—to wit, that many advertisers and broadcasters mistakenly think loudness sells.

Led Zeppelin

- My favorite part of Stereo Review is the record reviews, but Steve Simels seems to destroy the section each month with something horrendous. For instance, there's his November review of Led Zeppelin's "In Through the Out Door." I agree that this is a "Recording of Special Merit," but that doesn't mean to be the only point we agree on. Mr. Simels began by admitting his prejudice against Led Zeppelin, calling them "a band I've never been able to enjoy except in small doses" and describing Robert Plant's vocal efforts as "cartoonish macho yowling." Then he calls the new album "the most consistently listenable, inventive, and entertaining record they've ever made" BULL! It's an excellent album, but if Mr. Simels would bring his head down from the clouds long enough to listen to some of the original Jimmy Page guitar work on "Led Zeppelin IV," the eloquent Page acoustics on "Led Zeppelin III," or the catchy melodies of "Houses of the Holy," he might form a different opinion of the group, which he says "previously dealt almost solely in excess."

DICK MCDONALD
Southern Pines, N.C.

- I'm worried about Steve Simels. First he writes off Lou Reed's brilliant "The Bells" and then the very entertaining B-52's. Now he endorses Led Zeppelin.

The best comment I know of on Led Zeppelin comes from the Clash's Paul Simonon: "All I have to do is look at one of their album covers and I feel like throwing up!" Self-indulgent, blustery, pushy—that's Led Zeppelin. Their macho pose is tired (and tiring). They haven't changed, Steve. Page just wasn't up to spending a year in the studio overdubbing his guitar parts this time out, figuring that the sooner they got "In Through the Out Door" released the sooner they could replenish their bank accounts with a tour of America's more intimate football stadiums.

But I don't care a bit about Led Zeppelin; it's what the review suggests about Steve Simels that bothers me. What's next? "Best of the Month" honors for Chicago or Queen? A full-page review of Bad Company's latest?

JIM Mc Donald
Flint, Mich.

JIM. meet Dick; Dick, Jim.

FM Broadcast Quality

- As the November Stereo Review "Bulletin" pointed out, there are many outstanding musical telecasts on PBS. The sad part, of course, is the poor audio quality of nearly all TV sets. Recently, during a Charlie Daniels concert on PBS, I found a solution. The FM band falls between the frequencies of TV channels 6 and 7, and our local PBS station is channel 6. By tuning slightly below 88 MHz on my FM receiver and turning down the TV sound, I was able to hear the show in magnificent mono. There may be few PBS stations around the country on channel 6, but where they are this is a worthwhile alternative.

ROD SWEETLAND
Sacramento, Calif.

Yes—but it's even better if there's an FM station in the area simulcasting the program in magnificent stereo!

- I was very much interested in Eric Salzman's article in November on National Public Radio programming. I would like to know if there is an NPR station in my area. I live in Bishop, California, in the Eastern High Sierras. Our local FM station is KIOQ, and the music is mostly classical and jazz. All but a few of the programs that did not fit this format were eliminated. (One interesting exception is broadcasts of every game played by the local minor-league triple-A baseball team. I bet there are few other NPR stations that do that!) We can expect, for instance, that a classical program transmitted live at night will be heard later on tape during the day, but programs that aren't either classical or jazz won't be heard at all, making the satellite link of little local benefit.

The reason the station has given for the strict format is its hope of attracting more listeners, and thus more contributors, which is essentially the same reason for a format on a commercial station (which uses the increased numbers of listeners to sell more advertising). I can only hope that, with the elimination of ground-line costs, college stations able to pay for the receiving equipment will be allowed to carry live satellite-transmitted programs that the local NPR station does not choose to broadcast.

DICK THOMAS
Whitesboro, N.Y.

NPR and PBS

- The potential of expanded live programming via the National Public Radio (NPR) satellite (November 1978 Stereo Review) may be long in being realized for many of us. The station serving my area will have a "downlink" to receive satellite transmissions, but last fall they went to a format that offers mostly classical music during the day and jazz at night. All but a few of the programs that did not fit this format were eliminated. (One interesting exception is broadcasts of every game played by the local minor-league triple-A baseball team. I bet there are few other NPR stations that do that!) We can expect, for instance, that a classical program transmitted live at night will be heard later on tape during the day, but programs that aren't either classical or jazz won't be heard at all, making the satellite link of little local benefit.

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WEBERN and BERG

- Reviewing biographies of Anton Webern and Alban Berg ("Going on Record," November 1979), James Goodfriend offers the comment that these composers have their detractors, but, after all, so does Brahms. To suggest such an equivalence is absurd. Those who dislike Brahms (and they are relatively few) write off his music, but most of us respect him and take pleasure in it; they want loudness.

Now Mr. Goodfriend says: "But the reason the station has given for the strict format is its hope of attracting more listeners, and thus more contributors, which is essentially the same reason for a format on a commercial station (which uses the increased numbers of listeners to sell more advertising). I can only hope that, with the elimination of ground-line costs, college stations able to pay for the receiving equipment will be allowed to carry live satellite-transmitted programs that the local NPR station does not choose to broadcast.

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DICK THOMAS
Whitesboro, N.Y.
THE DIGITAL READOUTS ON THE NEW SANSUI RECEIVERS ARE NOT WHAT COUNT.
James Goodfriend replies: The thought—or
even the fact—that those who dislike the
music of the "Second Viennese School" con-
sider it not to be "authentic musical speech"
whatever that may be—does not necessarily
make it "inauthentic musical speech." It
merely says that they dislike it and do not
understand it. On the other hand, for the
most part, like it, so to me it is quite
authentic. And comparisons with Brahms
are not quite as illuminating, even to the
"inauthentic speech" point. I quote the eminent B. H. Huginn on Brahms' "chamber music" as it
represents not real creative activity but the
pretense of such activity in synthetically
conceived, "anaesthetic" subjects which are
manipulated by formula to fill out a pre-
scribed pattern. Boldredge. Of course. So
is similar criticism of Schonberg, Berg, and
Webern. You reject the music—if you're
going to—because you don't like the music,
not because you don't like the idea of it.
Furthermore, to blame Schonberg, Berg,
and Webern for the lack of genius of most of
the composers who choose to follow them is
also, it seems to me, off base. To say that
their music has been important and influen-
tial is only to cite a fact, not to make a
judgment. Far be it from me to deny the
current alienation of composers from au-
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...
DIGITAL READOUTS
While digital readouts may improve the looks of a receiver and make it easier to use, only digital circuitry can improve the receiver's performance. That's why all new Sansui Double-Digital receivers use our patented Digitally Quartz-Locked Tuning System, too.

DIGITALLY QUARTZ-LOCKED TUNING
To meet its rated distortion specifications, a receiver's tuner section must be perfectly centered. The slightest mistuning causes distortion of the final signal to increase rapidly. And even if a tuner is accurately tuned initially, it may drift away from the desired frequency within a short time. Sansui's Digitally Quartz-Locked Tuning System automatically provides optimum tuning for instant corrections.

When you listen to any of the new Sansui Double-Digital receivers, you're immediately aware of the difference that perfect tuning makes. You'll also see the difference in the music. The musical sections are extremely sensitive, with unusually high signal-to-noise and spurious response ratios.

PURE POWER DC AMPLIFICATION
A great receiver needs more than a superb tuner section. The amplifier must be first rate, too. That's why Sansui uses our unique Pure Power DC amplification system in all of our Double-Digital receivers.

While some other receivers have low Total Harmonic Distortion (THD), a Sansui receiver can achieve lowest Transient Intermodulation Distortion (TIM) simultaneously. That's because our high slew rate, fast rise time DC circuits provide sufficient drive current to respond instantaneously to even the most fleeting musical transients. The music reproduction is remarkably life-like, crisp and clean.

ELECTRONIC LED POWER METERS
The all-new peak power level LED display gives you an instantaneous reading of the power output of each channel, so you can continuously monitor the power you're sending to your speakers. This electronic indicator responds much faster and more accurately than any conventional needle-type meter.

ALL THE EXTRAS, TOO
The new Sansui receivers are high technology through and through. So we've designed them with special protection devices to prevent any mishap. Protective circuits save your speakers. This electronic indicator responds much faster and more accurately than any conventional needle-type meter.

SANSUI ELECTRONICS CORP.
Sanford, New Jersey 07090 - Chicago, Ill. 1014-
Los Angeles, Ca. 90036 - Tokyo, Japan
Sansui Audio Europe S.A., Antwerp, Belgium
In Canada, Electronic Distributors Ltd., Toronto, Ont.
CIRCLE NO. 38 ON READER SERVICE CARD
SONIC HOLOGRAPHY!

Carver Sonic Holography™ - it is absolutely astonishing.

Sonic Holography™ technology provides a dimensionally realistic sonic image from any stereo tape, record, or broadcast. Instruments and voices appear naturally and convincingly within a wide and deep sonic stage, behind, in front of, and off to the sides of the two front speakers. This remarkable achievement until recently has been a laboratory curiosity demonstrated with special recordings or in anechoic chambers. Carver research brought Sonic Holography out of the laboratory and into the listening room.

Here's what the experts said about Carver Sonic Holography:

"The results were positively breathtaking... With the lights out, we could almost have sworn we were in the presence of a real-live orchestra."

Harold A. Rodgers
Senior Editor, Popular Electronics, May 1979

"The instrumental sounds, originally heard in a more or less narrow line between the speakers, were suddenly located down the side walls of the room to a point nearly as far back as we were sitting (about 12 feet from the speakers). The sound took on a rich, solid quality . . . ."

Julian Hirsch
Hirsch-Houck Laboratories
Stereo Review May 1979

"My listening experiences leave no doubt that the technique produces a far more plausible sonic illusion of space and localization than is produced by normal stereo... it brings the listener substantially closer to that elusive sonic illusion of being in the presence of a live performance."

Larry Klein, Technical Director
Stereo Review, May 1979

"In sum, listening to the C-4000 in its hologram position was a thrilling sound experience for me. Plain old stereo will never be the same."

Arthur Salsberg, Editorial Director
Popular Electronics, May 1979

Sonic Holography is now available in the Carver C-4000. It is a versatile control console that also includes a sophisticated preamplifier, third generation Autocorrelator for noise reduction, Peak Unlimiter for restoration of dynamic range & Time Delay with built-in power amplification. For copies of the complete reports write to the Carver Corporation or use the reader service card.

CARVER CORPORATION
P.O. Box 664
Woodinville, Washington 98072
CIRCLE NO. 13 ON READER SERVICE CARD
New Products

Toshiba Preamp with Moving-coil Input

- The SY-665 stereo preamplifier from Toshiba has a built-in moving-coil cartridge preamp with a 39-ohm input impedance and a 65-dB signal-to-noise ratio (S/N). The conventional phono input has a 47,000-ohm input impedance and an 80-dB S/N. RIAA-equalization accuracy for both phono inputs is ±0.3 dB from 20 to 20,000 Hz. Distortion through the high-level stage—which includes inputs and switching for two tape decks, a tuner, and an auxiliary signal source—is specified as 0.01 per cent. Other features include a stepped volume control, a 16-Hz subsonic filter, bass and treble controls, and a microphone input. Dimensions are 16 1/2 x 3 3/4 x 9 1/4 inches and weight is 1/2 pounds. Price: $199.95.

Circle 120 on reader service card

Celestion Speaker Uses a New Woofer Design

- The woofer of Celestion's Ditton 332 speaker system incorporates a long voice coil and a 4-pound magnet that has a flux density of 1.05 teslas. A mechanical limiting element protects the woofer coil from mechanical damage in cases of accidental overdrive; the tweeter is fuse-protected. The 8-ohm, three-way system has a rated frequency response of 50 to 20,000 Hz ± 2 dB. The unit's crossover network employs crossover frequencies of 600 and 4,500 Hz. With the Ditton 332, a pink-noise input of 2.8 watts produces a 90-DB sound-pressure level at a distance of 1 meter. The walls of the cabinet, which measures 14 1/2 x 11 1/2 inches, are made of high-density particle board with either oiled American-walnut or elm veneers. The enclosure also contains bracings to reduce panel resonances. Total weight is 37 1/2 pounds. Price: $369.50.

Circle 121 on reader service card

TDK Introduces Two Tape-head Demagnetizers

- TDK's new HD-11 hand-held demagnetizer (top) is suitable for use with either open-reel or cassette tape decks. It is said to do its job in about 1 second by producing a burst of oscillating magnetic energy that automatically diminishes at a controlled rate, thus eliminating the usual need for careful removal of the demagnetizer from the head area. Colored LEDs indicate when the unit is on, ready for use, and when the demagnetization is completed. The HD-11's metal tips are covered with plastic to prevent their scratching the tape heads, and its entire front end pivots for easy access to heads in hard-to-reach positions. Self-contained, the HD-11 operates on supplied batteries. Price: $34.99.

The HD-01 (bottom) is a demagnetizer specifically designed for cassette decks. The unit consists of an eight-transistor generating circuit built into a transparent plastic cassette case. For use, the HD-01 is inserted into the deck like a regular cassette, and its entire front end pivots for easy access to heads in hard-to-reach positions. Self-contained, the HD-11 operates on supplied batteries. Price: $34.99.

Circle 122 on reader service card

Turntable Sub-base Reduces Acoustic Feedback

- The Iso-Base Model RD-1 turntable isolator is claimed to reduce acoustic feedback and to increase low-frequency headroom. It is made of two particle-board panels separated by several carefully designed springs with polyurethane damping. The base measures 3 x 21 x 15 inches, weighs 16 pounds, and can support turntables weighing up to 50 pounds, depending on how many springs the user installs (either four or six). Replacement isolation springs are available from the manufacturer. The external finish of the base is natural walnut. The unit comes partially assembled and includes assembly instructions and a limited three-year warranty. Price: $39 95. Whiting Products, Depri. SR, 57 Unquowa Road, Fairfield, Conn. 06430.

Circle 123 on reader service card

RG Dynamics Preamp Has Better Phono Overload

- RG Dynamics claims to have reduced distortions caused by slew-rate limiting and amplitude overload in the RG D3 control preamplifier. The phono section, which has gold-plated input jacks, has a rated total harmonic distortion of 0.015 per cent at 20,000 Hz. Sensitivity for a 1-volt output is 2 millivolts, and maximum phono-section output is 7 volts rms. The RIAA equalization is accurate to within 0.75 dB, and the signal-to-noise ratio is 78 dB. A-weighted. Input capacitance on each of the two phono inputs can be switched to 50, 150, or 300 picofarads. The phono circuit is specifically designed to be free of cartridge-preamp interaction. The line-amplifier section has a total harmonic distortion of 0.02 per cent from 10 Hz

(Continued on page 20)

STEREO REVIEW
In the past few years, these fine deck manufacturers have helped to push the cassette medium ever closer to the ultimate boundaries of high fidelity. Today, their best decks can produce results that are virtually indistinguishable from those of the best reel-to-reel machines.

Through all of their technical breakthroughs, they've had one thing in common. They all use TDK SA as their reference tape for the high bias position. These manufacturers wanted a tape that could extract every last drop of performance from their decks and they chose SA.

And to make sure that kind of performance is duplicated by each and every deck that comes off the assembly line, these manufacturers use SA to align their decks before they leave the factory.

Which makes SA the logical choice for home use; the best way to be sure you get all the sound you've paid for.

But sound isn't the only reason SA is the high bias standard. Its super-precision mechanism is the most advanced and reliable TDK has ever made—and we've been backing our cassettes with a full lifetime warranty longer than anyone else in hi fi—more than 10 years.

So if you would like to raise your own recording standards, simply switch to the tape that's become a recording legend—TDK SA. TDK Electronics Corp., Garden City, NY 11530.

The machine for your machine.
**New Products**

**latest audio equipment and accessories**

**to 100 kHz at a 1-volt output level. The treble and bass control ranges are ±12 dB at 15,000 and 20 Hz, respectively. A switchable subsonic filter has a 12-dB-per-octave slope below 20 Hz, and a front-panel switch defeats the tone controls. There are controls for monitoring and deck-to-deck copying for two tape decks. The recorder outputs are buffered to prevent interactions between recorder-input circuitry and the preamp. The thirty-two-step volume control is designed to maintain precise channel balance. The RG D3-W (shown) has solid-walnut end blocks and a silver-color face plate; dimensions are 18 x 3 3/4 x 12 inches. The rack-mounting Model D3-B has a 19-inch-wide black front panel. Both are priced at $595. For more information, write to RG Dynamics, Inc., 4448 West Howard Street, Skokie, Ill. 60076.**

**Circle 124 on reader service card**

**ADC Equalizer Has Switchable Filter Frequencies**

**Circle 126 on reader service card**

**ADC’s Sound Shaper Three stereo equalizer offers twelve primary frequency controls and twenty-four ancillary control positions per channel. Switches below each of the frequency-control sliders vary the slider’s filter frequency by nearly ±20 percent. The control range of each filter is a minimum of ±12 dB. Rated harmonic distortion with a 1-volt input is 0.018 percent from 20 to 20,000 Hz. The unit has two threensegment LED signal-level meters for monitoring and balancing plus connections for a tape recorder, an equalizer-bypass switch, overall gain controls, and indicator-level controls. The Sound Shaper Three is rack-mountable and measures 19 x 6 1/2 x 12 inches. Price: $499.95.**

**Circle 126 on reader service card**

**Allison Acoustics’ Smaller Speakers**

**From Sansui**

**Cassette Deck From Sansui**

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**t**he biggest bargain in hi-fi

We strongly urge you to check your styli for wear at least once a year to protect your turntable. Regardless of when (or where) you purchased your Shure cartridge, there is a Genuine Shure replacement stylus available which will bring your cartridge right back to its original specifications. Even better, you may actually be able to improve its performance significantly over the original with a Genuine Shure replacement stylus...at surprisingly low cost!

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**IF YOU OWN:**

**UPGRADE WITH:**

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*Before purchasing any replacement stylus be certain your turntable is compatible with the tracking force of the stylus you select.

Always insist on a Genuine Shure replacement stylus. Look for the name "Shure" on the stylus grip.

Shure Brothers Inc., 222 Halmarv Ave., Evanston, Ill. 60204
In Canada, A.C. Simmonds & Sons Limited, Outside the U.S. or Canada, write to Shure Brothers Inc., Attn. Dept. J6 for information on your local Shure distributor. Manufacturers of high fidelity components, microphones, sound systems and related circuitry.

CIRCLE NO. 54 ON READER SERVICE CARD

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**ADC Equalizer Has Switchable Filter Frequencies**

**Circle 126 on reader service card**

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**Circle 126 on reader service card**

**Allison Acoustics’ Smaller Speakers**

**From Sansui**

**Cassette Deck From Sansui**

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**The Allison:Five and Allison:Six speaker systems employ a Stabilized Radiation Loading (SRL) design for a smooth and extended bass power output. Each system contains an 8-inch acoustic-suspension woofer crossed over at 2,000 Hz to a 1-inch convex-dome tweeter. Both systems are frequency-balanced for use close to one room wall, with the woofer panel either horizontal or vertical. The Allison:Five's dimensions are 11 x 18 1/4 x 31/2 inches. The rack-mountable and measures 19 x 6 1/2 x 12 inches. Price: $499.95.**

**Circle 126 on reader service card**

**The front-loading Sansui SC-3330 metal-capable cassette deck uses integrated circuits for logic touch control of the transport. The transport incorporates a d.c. servomotor for the capstan and a separate d.c. motor for the reels. It also has a holdback-tension mechanism that reduces wow and flutter to a weighted-rms value of 0.04 percent. Other transport features include memory rewind, auto-play, and auto-repeat, plus external timer control. The deck's combination record/play head**

*Continued on page 22*
Why do we make more than one speaker?

Just about everyone who recognizes the name Bose® also knows the Bose® 901® Direct/Reflecting® speaker. They know it as the very unconventional speaker that, soon after its introduction, became internationally the most highly reviewed speaker regardless of size or price. And now, more than 300 design improvements later, it is the standard bearer for the state-of-the-art in our technology.

So why do we manufacture any other speakers? Because we appreciate that not everyone is able to acquire the 901 system as his first investment. And we would like that investment to be in Bose. Toward this end we have adopted a definite design goal for each of our speakers.

Our continuing goal for the 901 is to produce the best speaker regardless of price and our objective for each of our other speakers is to produce the best speaker for its price. We pursue these goals by identifying three price points below the 901 speaker and putting as much of the 901 system technology into each design as the price will allow. Each is a Direct/Reflecting® speaker and each offers a measure of the spaciousness and clarity of sound for which the 901 speaker has become famous.

The Model 601
Direct/Reflecting® speaker is simply the finest speaker we know how to make using woofers and tweeters (rather than the more-expensive full-range drivers used in the 901 speaker). In its elegant walnut enclosure are two high-performance woofers and four tweeters, arranged to provide that balance of reflected and direct sound most suitable for a floor-standing speaker.

The Model 501
Direct/Reflecting® speaker is the Bose economy floor-standing speaker. A long excursion 10" acoustic suspension woofer, two tweeters and a control for directing the energy from one of the tweeters combine to provide a speaker of exceptional value.

The Model 301
Direct/Reflecting® bookshelf speaker represents one of our most challenging designs. The object was to provide a clear and spacious musical sound from an enclosure that fits comfortably on a bookshelf. You can imagine our pride when an independent market survey found the 301 to be the best selling speaker in the U.S.A.

Whatever your price range, if you cannot start with the best speaker, you can own a substantial portion of the technology that makes it the best. And you can own a measure of the special performance benefits that only a Bose Direct/Reflecting® speaker can provide.
fact: the phono cartridge is the heart of hi-fi...

The hi-fi phono cartridge functions as the heart of high fidelity record reproduction. It overcomes such ever-occurring problems as dust, static electricity, "hot" signals, and record warp that cause "clicks" or "pops" and distorted record reproduction. May we send you our brochure?

Shure Brothers Inc., 222 Hartrey Ave., Dept. H1, Evanston, IL 60204
In Canada: A. C. Simmonds & Sons Limited

Manufacturers of high fidelity components, microphones, sound systems and related circuitry.

Shure Brothers Inc. 222 Hartrey Ave., Dept. H1, Evanston, IL 60204

The hi-fi phono cartridge functions as the source of sound (the point at which the recording is linked with the balance of the hi-fi system)—therefore, its role in high fidelity is absolutely critical. Just as the camera can be no better than its lens, not even the finest hi-fi system in the world can transcend the limitations of an inferior cartridge. The cartridge represents a relatively modest investment which can audibly upgrade the sound of your entire record playback system.

Consult with your nearby Shure dealer who will help you select the Shure phono cartridge that is correct for your system and your checkbook. We especially recommend that you audition the Shure V15 Type IV. Discriminating critics throughout the world praise this cartridge as the new standard for faithful reproduction. Discriminating critics throughout the world praise this cartridge as the new standard for faithful reproduction. It overcomes such ever-present problems as dust, static electricity, "hot" signals, and record warp that cause "clicks" or "pops", and distorted record reproduction. May we send you our brochure?

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New Products
latest audio equipment and accessories

makes use of an iron-silicon-aluminum alloy whose wear resistance is claimed to exceed that of permalloy heads. The head was designed to prevent magnetic saturation that could occur with the high bias levels required for pure-metal tapes. With the unit's Dolby circuits on, the signal-to-noise ratio is 69 dB; the frequency response is 20 to 17,000 Hz ± 3 dB with pure-metal tape, 20 to 16,000 Hz ± 3 dB with CrO2 tape. The front panel has sixteen-segment LED peak-level displays, two microphone inputs, and a headphone jack powered by a separate internal amplifier. Dimensions are 19 x 6 1/4 x 12 1/8 inches. There is also a non-rack-mounting version of the SC-3300 that is finished in brushed aluminum and simulated rosewood. Price of either version: $420.

Circle 127 on reader service card

SAE Receiver with Fluorescent Meters

SAE's Model R9 AM/FM stereo receiver delivers 90 watts per channel into an 8-ohm load with no more than 0.05 per cent harmonic or intermodulation distortion over a 20- to 20,000-Hz bandwidth. The phono-preamp section has an RIAA-equalization error of no more than ±0.5 dB and a signal-to-noise ratio (S/N) of 74 dB referred to a 5-millivolt input. The amplifier's bass, midrange, and treble controls have ±10-dB ranges at 100, 1000, and 10,000 Hz.

The AM-tuner section has quartz-locked touch-tuning with a digital frequency readout. Usable mono sensitivity is rated at 10.3 dB with a 50-dB-quieting stereo sensitivity of 36.1 dB. The FM section also has a signal-to-noise ratio of 65 dB, an image-rejection ratio of 78 dB, and alternate-channel selectivity of 65 dB. The AM section has a usable sensitivity of 20 microvolts and a 42-dB S/N. A fluorescent bar graph can be switched to display power-output level, AM or FM signal strength, FM multipath level, or tape-output-jack level. In addition to connections and switching for two tape decks, the R9 has an external processor loop that can be switched into either the line- or tape-output jacks. Dimensions are 18 1/4 x 5 1/4 x 17 1/2 inches and weight is 35 pounds. Price: $800.

Circle 128 on reader service card

(Continued on page 24)

Hegeman Preamp Uses Passive Phono Equalization

The Hapi Two from Hegeman Audio Products is a phono-preamp/control unit designed for relay-rack mounting. The phono-preamp section uses flat gain and passive equalization techniques with the gain coming from operational amplifiers. The control section, which also uses operational amplifiers, includes switching for three high-level inputs, gain and balance controls, an output-mode selector (either channel through both speakers, mono, or stereo), a tape-monitor switch, switchable loudness compensation, a rumble filter, and a 3-second turn-on delay. The Hapi Two measures 19 1/2 x 9 inches and weighs six pounds. Price: $900. Hegeman Audio Products, Inc., 176 Linden Avenue, Glen Ridge, N.J. 07028.

Sony Produces a Pure-metal Cassette

Sony's Metallic 46 cassette contains a 46-minute length of pure-metal recording tape that provides greatly extended dynamic range over the audio-frequency spectrum. The use of pure-metal tape-coating particles also reduces modulation noise and print-through problems. The tape is enclosed in Sony's SP shell mechanism, whose construction has two features designed for improved tape travel: the tape hubs have raised rims for more intimate contact with the internal slip-sheets, and the slip-sheets themselves have raised guard rails to keep the tape's distance from both shell halves even. Price: $8.

Circle 129 on reader service card

(Continued on page 24)
Introducing Accuglide™: The computerized remote control turntable.

It provides hours of viewing pleasure. (You read it right. Viewing pleasure.)

Even before you enjoy listening to Accuglide, you’re going to want to spend time just watching it. Because Accuglide performs like no other turntable you’ve ever seen.

Watch Accuglide’s unique rotary spindle raise and lower your records like an elevator. So your hard rock doesn’t drop on “Madame Butterfly.”

You’ll see Accuglide’s spindle rotate its way to the top to pick up your record, carefully lower it, then gently place it onto the platter. Unlike other multiplay turntables, it doesn’t drop them.

Accuglide’s remote control lets you play the “Hallelujah Chorus” from across your living room. Hallelujah!

Now, listening to relaxing music can really be relaxing. Thanks to Accuglide’s remote control you can play your favorite music without jumping up and down.

In fact, you can even raise and lower the volume from 40 feet away. So you won’t be hassled by your neighbors if you want to play a hustle at 11 PM.

Play it again, Sam, is only one of 27 commands you can give Accuglide.

Simply press the right buttons on the Accuglide turntable or its remote control, and Accuglide’s built-in computer stores up to 27 different commands.

So, you can change a record, reject it (you didn’t like that one anyway), raise the tone arm (so you can answer the phone), then resume play without missing a beat, repeat it (because now you want to hear it without any interruptions), then raise your records back to starting position so you can start all over again.

Accuglide’s tubular “J” shaped tone arm is superbly balanced for exceptional tracking. And comes with a precision ADC magnetic cartridge with elliptical diamond stylus. Plus, the belt-drive Accuglide has the kind of specs you’d expect to find in the finest turntables. Like Wow and Flutter that’s less than .04% WRMS and Rumble that’s better than -66dB (DIN 45539B).

And if you think all this sounds good, how does this sound?

You can have all this viewing and listening pleasure for a song.

BSR (USA) LTD Blauvelt, NY 10913

JANUARY 1980
**New Autosound Products**
latest audio equipment and accessories

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**SHURE**

**SME Series III S tone arm**

The designers of the award-winning Series III tone arm took on the challenge of developing a tone arm with essentially the same outstanding performance characteristics as the Series III, but at a significant reduction in price.

The Series III S tone arm is an instrument that is still definitely in the connoisseur class employing state-of-the-art materials and technology for unsurpassed strength-to-weight ratios in critical areas. Perfectionists will achieve the same flawless performance they have come to expect only in the SME Series III.

The tone arm and shell are combined into a one-piece “cartridge carrier,” which is removable and interchangeable. Coupling is close to the fulcrum so the carrying arm makes a minimum contribution to the Series III S total effective mass.

Tracking force and bias adjustments are controlled by a sliding weight adjustment. A fluid damping system is available separately.

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**New Slimline Car Speakers From ADS**

- Requiring a clearance of only 1½ inches behind a 4-inch cutout, the ADS L300i is a two-way loudspeaker system with a 1-inch dome tweeter and a long-exursion 5-inch woofer. Completely self-contained in its own metal cabinet, the L300i is designed for door mounting (besides standard cars, it will fit the doors of most new imports and GM’s new X-bodies), but it will also fit most rear package shelves. The mounted unit protrudes from the surface only ¾ of an inch, a mounting surface area of 8½ x 5¾ inches is required. Maximum power-handling capacity is 100 watts, frequency response is 50 to 20,000 Hz ±3 dB, impedance is 4 ohms, and sensitivity is 90 dB output measured at 1 meter for a 1-watt input. Sold in pairs only, the price per unit is $117.50.

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**Audiovox AM/FM Stereo Cassette Player**

- The Audiovox ID-675/CAS-350 in-dash car stereo unit includes a cassette player, an AM/FM tuner, and a 20-watt-per-channel amplifier. The cassette player features locking fast-forward and rewind, automatic eject at end of play or with ignition turn-off, and manual eject. Controls provided are left-right balance, front-rear balance, bass, treble, volume, mono/stereo, and tape function. Frequency response is 50 to 10,000 Hz, sensitivity 15 microvolts for AM and 5 microvolts (30-dB quieting) for FM. The unit can handle four 8-ohm speakers. Adjustable shafts are provided. The ID-675/CAS-350 measures 7⅛ x 2 x 5⅜ inches. Price: $258.

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**NOTICE:** All product descriptions and specifications quoted in these columns are based on materials supplied by the manufacturers. Domestic inflation and fluctuations in the value of the dollar overseas affect the price of merchandise imported into this country. Therefore, please be aware that the prices quoted in this issue are subject to change.

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**Sonic Cushions Conduct Sound Directly to the Body**

- Pioneer Electronics of America’s Bodysonic systems consist of two parts: a cushion containing transducers that transmit low-frequency musical vibrations directly into the body of the person sitting against it, and a separate power amplifier that hooks up to any music system. The Bodysonic for cars (shown) offers a corduroy-covered cushion in either brown or silver-grey. The cushion contains two transducers and has a 4-ohm impedance. It connects to either a car-stereo power amplifier or a Bodysonic car amplifier. The Bodysonic car amp delivers 15 watts per cushion (it can drive two cushions) through a frequency range of 20 to 150 Hz.

For use in chairs, sofas, or beds, the Centrex Bodysonic for home use has both back- and seat-cushion sections, each with two Bodysonic transducers. The home amplifier, which connects to any sound system, mixes the left and right channels together and delivers a maximum of 12 watts into a home cushion’s 8-ohm impedance. One home amplifier can drive two cushions in addition to the headphone that Pioneer recommends for the optimum home Bodysonic effect. Prices: car Bodysonic cushion, $69.95; car Bodysonic amplifier, $70.95; home Bodysonic complete system, $199.95; extra home cushion, $99.95.

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**Audiovox AM/FM Stereo Cassette Player**

Circle 130 on reader service card

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**Audiovox AM/FM Stereo Cassette Player**

Circle 131 on reader service card

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**Audiovox AM/FM Stereo Cassette Player**

Circle 132 on reader service card

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**NOTICE:** All product descriptions and specifications quoted in these columns are based on materials supplied by the manufacturers. Domestic inflation and fluctuations in the value of the dollar overseas affect the price of merchandise imported into this country. Therefore, please be aware that the prices quoted in this issue are subject to change.
If you don’t have at least $1,000 to spend on an Audiovox Hi-Comp autosound system, read no further.

By Robert Harris, Technical Director

There are few things in this world that can take a driver out of the traffic jam or away from a gas line, better than great music, well reproduced.

Audiovox understands this. That's why they engineered the Hi-Comp range of high fidelity stereo components designed to produce exemplary sound in automobiles.

A total range of exotic amplifiers/receivers.

Each model builds on the one before it until you reach the HCM-0010 - the “master system.”

HCE-750 HiComp Semi-parametric graphic equalizer

It’s an electronically-tuned AM/FM multiplex receiver with a built-in auto-reverse cassette deck. The HCM-0010 has 12-station memory, LED display, built-in quartz clock and an automatic station seek. It also features a CrO₂ switch, Dolby®, FM muting, 4-way stereo balance controls, separate bass and treble controls and a Hard Permalloy tape head. Its looks are straight out of a stereo buff’s music room.

The ultimate is the Hi-Comp 362 system: 6” x 9” three way speakers with 1½” Strontium horn tweeters, 3” mid-ranges, 20-ounce Strontium magnet woofers, 1½” heat proof aluminum voice coils, and a 70 to 18,000 Hz response range with crossovers at 2,900 and 9,000 Hz, and a power capacity of 70 watts. Hook these up to the HCM-0010 with the Hi-Comp power amplifier, HCB-830, 120 watts RMS at less than 0.3% distortion, and you’ve got enough sound to pop a moon roof.

4 power-matched speaker systems.

HCS-362 HiComp 6” x 9” 3-way speaker system.

Now for the equalizer.

Apart from a heavy-duty fader control or a dual slide-bar pre-amp, the only other Audiovox Hi-Comp component you might buy is the HCE-750 semi-parametric graphic equalizer with 5 slide-bar response controls and bi-amp capability.

You spend $1,000 and what do you get?

Probably the finest sound you’ve heard, anywhere. It takes money to get it. But it also takes a lot of specialized dedication. Audiovox only knows how to do just one thing: How to engineer the finest automobile sound systems you’ve ever heard.

For further information, write to: Robert Harris, Technical Director, Dept. SR, Audiovox, 150 Marcus Blvd. Hauppauge, New York 11787.

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CIRCLE NO. 6 ON READER SERVICE CARD
"THE MISSING LINK IN STEREO"
"The Koss K/4DS Digital Delay System turns your room into a cabaret, theatre, auditorium or concert hall."

"From the beginning, Koss has been involved in creating unique listening environments to enhance the enjoyment of recorded music. With the invention of Koss stereophones, we created a uniquely private and singularly personal listening environment.

"Now, we are delighted to utilize our in-depth experience in acoustic and psycho-acoustic phenomena in the development of a home listening environment that is virtually a perfect replica of the actual environment in which the live performance took place. In other words, we've brought home not only the orchestra but your seat in the concert hall as well.

"Through the magic of the latest computer technology, Koss engineers have developed a 16,384 bit computer circuitry system that has been programmed to permanently store, in digital format, four ideal live performance rooms: a club, a theatre, a concert hall and an auditorium. Thus, with the K/4DS hooked into your system, all you have to do is simply turn the selector switch to the setting that corresponds to the most natural environment of your recorded material. The K/4DS will automatically delay the recorded material to conform with the optimized ideal room stored in the computer and play it back through a set of secondary or ambience speakers located at the sides of your listening room. Believe me, what you'll hear is the most life-like and realistic illusion of a live performance you've ever heard.

"To further match, as accurately as possible, the acoustics of a live situation, the K/4DS features a special cross channel circuitry that delays and channels portions of the right audio signal to the left ambience speaker and vice versa. In addition, portions of the delayed signal are recirculated through the system again and again to simulate the actual decay rate that occurs during a live performance.

"Unlike most delay systems on the market, we've designed the Koss K/4DS with its own built-in amplifier. You need only add a pair of speakers that operate adequately up to 8,000 Hz to transform your current stereo system into an unbelievably exciting sound experience.

"For versatility, we've provided a speaker selector with three settings: K/4DS 4th dimension sound, stereo only, and stereophones only. There's also an EQ switch to enhance the bass response of your ambience speakers and to roll-off the bass response below 30 Hz in order to eliminate possible distortion. And, of course, the K/4DS wouldn't be Koss without dual stereophone jacks, special built-in phone amps, and a 4th dimension to stereo comparator switch.

"Our new Koss K/4DS Digital Delay System has been carefully designed to offer the best possible in-home live sound experience at an affordable price. To achieve this goal, we've made the K/4DS an easy-to-operate, factory optimized digital delay system. You won't need to be an audio engineer to recreate at home the realism of the live performance.

"I urge you to hear the Koss K/4DS Digital Delay System at any of these exclusive dealers. And to take advantage of our special $20 introductory discount. Never since the introduction of stereo has a product so dramatically increased the listening enjoyment of recorded music. It's truly a remarkable achievement in sound reproduction and one I know you won't want to miss!"

Write c/o Virginia Lamm, for more information about the Koss K/4DS Digital Delay System or about our world famous line of stereophones and loudspeakers.

KOSS K/4DS Digital Delay System
hearing is believing™

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CIRCLE NO. 36 ON READER SERVICE CARD
Audio News Views and Comment

By David Ranada

CAR-STereo STANDARDS

After little more than a year's work, the large and highly competitive car-stereo industry has agreed to set standards for itself. Twenty-two major car-stereo manufacturers and importers, who together represent more than 90 per cent of the industry's sales, have endorsed the standards and specifications developed by a group called the Ad Hoc Committee of Car Stereo Manufacturers. The endorsing manufacturers have promised to present information according to the agreed-upon standards in all their catalogs, spec sheets, advertisements, and other promotional materials. All this should occur by June 1 of this year, although previously printed literature need only be revised when present supplies are exhausted. The intention of the standard is to allow the consumer to make valid specification comparisons among different models and brands of car-stereo components.

The problem of non-comparable car-stereo specs came about because the FTC regulations on amplifier specifications apply only to home equipment, not to car-stereo gear. Thus manufacturers have previously been free to rate—or inflate—output powers (and FM sensitivities) in different and mutually incompatible ways. The new standards should go a long way toward eliminating the numerological hanky-panky that used to be so prevalent in the home-equipment market and which still exists to some degree in the car-stereo field. But buyers should still be wary, for not all manufacturers have endorsed the standards and, unlike the FTC rule on home equipment, this one lacks legal teeth. So, unless you're careful, you may unwittingly be comparing apples with oranges—and ending up with a lemon. The products whose specs conform to the committee's standards will indicate that fact in print.

What do the standards standardize? For amplifiers and receivers, they basically impose the specifications, measurement techniques, and disclosure formats developed for home equipment as currently embodied in the standards issued by the Institute of High Fidelity. Since there are no IHF standards yet for tape equipment, the Ad Hoc Committee devised its own.

The standard rating methods for car and home amplifiers and receivers are now identical except in minor details.

- Amplifiers. Several measurements are standardized for car-stereo amplifiers, and all are equivalent to those for home equipment. The endorsers of the standard are required to state in their manuals—if not in their ads—continuous power output, frequency response, A-weighted signal-to-noise ratio, amplifier sensitivity, minimum input impedance, and tone-control characteristics. The first two specifications should help you assess compatibility if you are buying car-stereo separates. The power-output specification has an interesting aspect that is caused by the changing power-supply voltage in a car. The nominal 12-volt supply of a car can vary from 11 to 16 volts under driving conditions. The Ad Hoc Committee has agreed on 14.4 volts as the normal power-supply voltage to be used in testing a piece of car equipment.

- Tuners. While no single measurement can adequately describe the sensitivity of an FM tuner, the agreed-upon standards include the IHF's specifications for monophonic usable sensitivity and mono 50-dB quieting sensitivity. Direct comparisons of sensitivity specifications will be possible because they will be expressed in dB. (A car antenna's impedance will also influence a sensitivity rating expressed in microvolts.) Other FM specifications are audio-frequency response, capture ratio, alternate-channel selectivity, image rejection, i.f. rejection, and maximum output voltage. (See the December 1975 issue of STEREO REVIEW for more on the dBf measure and the IHF tuner standards.)

- Tape players. The committee's tape-player standards include frequency response, weighted-rms wow and flutter, stereo separation, A-weighted signal-to-noise ratio, and maximum output voltage. A ±3-dB tolerance limit is recommended by the committee for the frequency-response specification because it "should result in a more meaningful comparative performance measurement without placing any undue hardship." The standards also allow the averaging of low-frequency head-contour frequency-response aberrations.

These standards, though a giant step forward for such a young industry, may not necessarily provide all the information you need to decide which piece of equipment to buy. In some cases, the most such specifications will reveal is comparative performance under certain laboratory conditions. And here we encounter the basic question that lies behind all standards: Do they embody a reasonable attempt to characterize and describe all the factors which lead to satisfactory performance in situ? As designers of the new electronic control systems for automobiles know very well, the car environment is one of the most difficult to design for. Not only must automotive electronics withstand extremes of temperatures rarely found in the home, they must also stand up to constant and heavy vibration and physical abuse. With radio reception, the problem becomes even more difficult. The equipment's designer has no control over the antenna, its effectiveness, its mounting, or, for that matter, over the whole receiving environment itself. A tuner engineered for the open-wide spaces might have considerable difficulty coping with the hilly, crowded (in the radio-frequency sense), overloaded (in the signal-strength sense), and multipath-ridden city regions. Indeed, a tuner that produces good results on a test bench can fail to provide acceptable on-the-street reception.

It's obvious that further studies must be made to determine just which characteristics of FM receivers affect the quality of in-car reception. Only when these have been defined and standard tests for them developed can really meaningful comparisons be made between products. Nonetheless, the Ad Hoc Committee is now working on standards for AM radios and, believe it or not, car loudspeakers. Just imagine the meeting at which they will discuss the "standard" test dash-board, door panel, or back seat!

In any case, we applaud and support the work of the Ad Hoc Committee and look forward to industry-wide acceptance of the new standards it has promulgated.
High fidelity is the sum total of audio experience. It means not only superb styling but ease of operation. It also means the joy of listening, even in the midst of a frenetic work schedule. Just turn on the system, relax and forget your problems and experience an audio happening.

The total audio experience can't be gleaned from specifications. It must be heard and felt. Because many Lux original technical developments enhance the experience, they are not easily specified.

The Lux L-11 Integrated Amplifier uses Realtime Processed DC Amplification. In a conventional amplifier, a capacitor is used in the negative feedback loop to eliminate waveform distortion, but it in turn triggers time lag causing phase distortion in the lower frequency and transient distortion in the higher frequency. Lux's approach to this problem as seen in the Model L-11 was to drop the capacitor from the negative feedback loop, thus erasing the time lag causing phase and transient distortion. DC drift was solved by the use of Lux's exclusive DMLIC (dual monolithic linear integrated circuit).

Lux 5K50 Cassette Deck uses Our BRBS System. Building a superb cassette deck needs more technology than standard decks. To make the most of the unit's 3-head design, the BRBS variable bias system is provided. This Bridge Reconciling DC Current and Signal Current avoids transient and phase shift distortion.

Lux R-112CP Tuner/Amplifier and our T-12 Tuner both use the Closed Loop Lock Loop Tuning System. Since it's impossible to enjoy finetuned FM or relax when you have to jump up and turn on, Lux has perfected frequency control.

While most quartz lock systems operate on the front end only, Lux goes further, with Closed Lock Loop controlling the front end, the IF and detector circuits, with strong instant corrective feedback to the exact center of the desired frequency range. Another locking circuit, AccuLock, physically locks the tuning knob at the desired point. Not only does Lux's system deliver perfect tuning, it retains the last tuned frequency, even when the power is turned off and on.

Lux PD 277 offers quality and convenience. Using a Lux designed, servo-controlled brushless, slip-less motor shaft and flutter is extraordinarily low at 0.002%, while signal-to-noise ratio is 60dB.

Other outstanding features are a straight low mass tonearm and vertical pivot construction for minimizing resonance and instability.

Quality and convenience are evident by electronic controls for all major functions and a separate motor for the arm eliminates noisy, friction-producing linkage.

These and other innovations are typical of Lux's outlook. But none of this shows up on specifications. Only listening will prove that all of Lux is for your pleasure.

See your nearest Lux dealer for a unique listening experience.

LUX AUDIO OF AMERICA, LTD.
160 Dupont Street, Plainview, NY 11803 (516) 349-7070
11200 Chandler Blvd., North Hollywood, CA 91603 (213) 985-5500
In Canada: Lux Audio of Canada, Ltd., Ontario
Due to the tremendous response from consumers, Lux has decided to extend the Great Rebate Program from December 31, 1979 to January 31, 1980.

CIRCLE NO. 39 ON READER SERVICE CARD
The Real Thing

Q. I have eclectic musical tastes and high-quality audio equipment, including speakers whose response is smooth and flat, as far as I can tell, from about 16,000 Hz down to 40 Hz or so. The trouble is that my system provides a reasonable facsimile of what I hear at a classical-music concert, but with my rock and disco records it doesn't even come close to sounding like the live experience. Why is this?

A. You actually have two separate problems—similar root causes. Let's look at the rock-concert situation first.

In general, speakers for amplified instruments have to withstand enormous power inputs, hence they are built with rather stiff, low-compliance suspensions. Such a speaker system's low-frequency resonance is generally designed to fall somewhere between 75 and 100 Hz and will roll off fast below that frequency. A bass guitar feeding such a speaker will sound especially crisp and articulate because of the lack of low bass to round out the tone. That's why an electric bass guitar is usually recorded from the output of its pickup (via a microphone) instead of being plugged directly into the mixer. Whatever bass finds its way onto the record may nevertheless be too strong around 40 to 50 Hz and too weak between 70 and 100 Hz to enable a good home speaker to replicate the sound heard at a rock concert.

In addition, it is likely that good home speakers will reproduce the recorded signal with much less distortion than you are accustomed to hearing at a live concert. (Think about it—when was the last time you could make out the words sung during a rock performance? You usually can't on a record.)

Two other important sonic qualities of a rock concert are also usually lacking even in high-quality home reproduction: (1) the sheer physical impact of the dangerously high acoustic-energy levels, and (2) the distribution of that energy in a large hall, which creates the feeling that one is being bathed in a sea of sound. How far you're able to go in re-creating the first quality depends on your equipment budget, pain threshold, and the tolerance of your neighbors. A rear-channel ambiance synthesizer or time-delay unit will help take care of the second.

Trying to reproduce "live" disco sound in the home is something else again. The characteristics and quality of disco sound vary, of course, from one discothèque to another. The way disco music is currently recorded, it usually sounds best played with a 5- or 6-DB boost centered at about 70 Hz, with a fast rolloff below that. The high frequencies usually sound better with a small (3- to 4-DB) lift from 7,000 Hz on up. (The high-frequency content of disco records varies much more than the bass, so experimentation is required.) Commercial disco installations have such curves built in.

As I'm sure you've found by ear, ordinary tone controls—even the three-band ones with a separate midrange adjustment—are not capable of providing the desired response-curve shapes. For that you need at least a five-band equalizer with which you can apply a substantial boost at about 70 Hz, roll off the signal below that point, and make it rise gently above 7,000 or 8,000 Hz. This same

Typical rock and disco curves. The 70-Hz bump produces the illusion of a stronger, lower bass than the system actually has, without causing boominess or a barrel effect on male voices. The treble curves (A, B, and C) are intended to achieve a "hot" high end without excessive shrillness.
At last a moving coil cartridge you can recommend to your best friend!

New AT30E
Stereo Phono Cartridge with Vector-Aligned™ Dual Moving MicroCoils™ and user-replaceable Stylus

The subtle, yet unique characteristics of moving coil cartridges have had their admirers for years. A top-quality moving coil cartridge exhibits remarkable sonic clarity and transparency. This performance can be attributed to the very low mass, and low inductance of the tiny coils used to sense the stylus motion. But until now, moving coil cartridge popularity has been limited by three major problems which seemed almost inherent to moving coil designs.

1) It seemed impossible to make a user-replaceable stylus assembly without compromising performance; 2) most moving coil cartridges exhibited relatively low tracking ability due to rather stiff cantilever mounting systems; and 3) output of the cartridge was below the level needed for commonly available amplifier inputs.

Introduction of the Audio-Technica AT30E and the end to all three problems! Our design approach is simple and direct. Rather than locate the coils in the cartridge body, they are integral with the stylus assembly. If the stylus becomes worn or damaged, the entire moving system, cantilever and all, is simply unplugged and replaced, just like a moving magnet cartridge. Large, gold-plated connectors insure loss-free connections so vital at the low voltages generated by a good moving coil cartridge. The result is easy field replacement with no penalty in terms of performance.

Careful research indicated that good tracking and moving coil design were indeed compatible. By controlling effective mass and utilizing a radial damping system similar to our famed Dual Magnet™ cartridges, we have achieved excellent tracking ability throughout the audio range. Compliance is individually controlled during manufacture of each assembly to optimize performance. This extra step, impossible with most other designs, coupled with our unique radial damping ring, insures excellent tracking of the high-energy modulation found in many of the top-quality recordings now available.

Each coil is located in the ideal geometric relationship to reproduce "its" side of the record groove. This Vector-Aligned™ design assures excellent stereo separation, minimum moving mass, and the highest possible efficiency. It's a design concept which is exclusive to Audio-Technica, and is a major contributor to the outstanding performance of the AT30E.

We can't take credit for solving the low output problem. The AT30E output is similar to many other fine moving coil cartridges. But an increasing number of amplifiers and receivers are featuring built-in "pre-preamplifiers" or "head amplifiers" to accommodate moving coil cartridges directly. Thus the new systems buyer can make a cartridge choice based on sonic characteristics rather than on input compatibility.

In addition, Audio-Technica offers the Model AT630 Transformer for matching to conventional amplifier inputs.

The new Audio-Technica AT30E Dual Moving Micro-Coil Stereo Phono Cartridge. With the introduction of this remarkable new design, every important barrier to full enjoyment of the moving coil listening experience has been removed. Progress in sound reproduction from Audio-Technica... a leader in advanced technology.
WHY BUY COMPONENTS?

My last column was devoted mostly to the historical beginnings of component high fidelity, a subject that leads, logically enough, to the question of why separate components displaced the console radio and radio-phonograph in the homes of exacting listeners.

Early hobbyists—engineers and assorted tinkerers (the term "audiophile" had not yet been invented)—could go out to their neighborhood audio salon or discount house and pick up the latest Yakumara integrated amplifier; neither the stores nor the amplifiers were there, so it was a matter of making do with the materials at hand. The only high-quality equipment available was intended not for the home but for professional use—radio-broadcast and recording studios, movie theaters, and the like. These units, built to industrial standards, were generally large, rugged, and heavy, but they could be used in the home with a bit of clever modifying—or floor bracing! Turntables designed for radio studios, for example, had to accommodate the 16-inch, 78-rpm, 15-minute-per-side "electrical transcriptions" then in use. As a matter of fact, even after turntable "separates" became available to the average consumer, 12-inch tone arms designed for the 16-inch discs were sold for home use; having one of those rather than a "little" 9-inch arm for 12-inch records was the "in" thing for many people who probably never even saw a 16-inch disc. And not only were the tables and tone arms large, they were also extremely massive, having very powerful motors to provide adequate torque for starting those big platters quickly. Sometimes they were even mounted in concrete. The dead weight helping to damp out vibration, both external and internal. There were few, if any, tape decks made specifically for the home, either; those available were professional 10$\frac{1}{2}$-inch reel Magnecords and Concertones (and woe unto him who got entangled with one of them while it was in fast forward or rewind!). Quality loudspeakers were those intended originally for studio or movie-theater use; they ranged in size from huge to monstrous. Even so, a number of these giants, such as the Acme "Voice of the Theater," made their way into private homes, as did studio and public-address amplifiers. At the outset, then, separate components were used simply because they were there. Eventually, interest in this equipment began to extend beyond the professionals who had access to it, and home experimenters began building their own.

The large console radio-phonograph was still the mainstay of the home market, but a few manufacturers began—at least cosmetically—to upgrade their equipment, perhaps to give the impression they were supplying the same audio quality as the separate components were. In fact, true upgrading would have been too expensive, and the large, impressive pieces of console furniture often housed electronics that were not much superior to those found in a table radio. The only real improvement in many cases was the use of larger speakers to provide a "better" (usually just boomer) bass. And this created a new problem—acoustic feedback. In general, it is not practical to house loudspeakers and record player in the same cabinet. If the bass response is of a magnitude worth mentioning, it will cause the entire cabinet to vibrate (especially the relatively light cabinets used for most consoles), which vibration will, in turn, shake hell out of the record player, thus creating the classic howl of acoustic feedback.

Once real components began to be available (in the late Forties or early Fifties), they were quickly accepted for home use by a small group of somewhat "premature" audiophiles and became the symbol of high-quality audio. The market for consoles continued, but manufacturers wanted to give the impression that these furniture pieces delivered component-quality sound too. What at least one of the more highly respected companies did was to mount units from their line of high-level components into cabinets with speakers. The point was for the customer to think he was getting the best of both worlds—component hi-fi ready-installed in a console. There was no mention, however, of the fact that the components had been specially modified—among other things, the bass response had been rolled off considerably to avoid the acoustic feedback that would otherwise have been severe enough to render the units useless at anything above low volume. Later, other manufacturers put out consoles that attacked the problem more legitimately by providing special isolation of the turntable and/or speaker assembly.

With the advent of stereo (circa 1958), another sound reason for separate developments: speaker placement, which in the mono format was relatively simple, became much more critical. Pre-bookshelf speakers were generally housed in large enclosures, many of which were designed for corner placement. In stereo, of course, speaker position is critical, and having the speakers fixed in a console can be a decided disadvantage.

Not least among the reasons for using separate components is simple convenience and practicality. For example, when amplifier controls began appearing on a separate chassis—the amplifier—they were at first thought of as remote-control units. The number of controls on them wasn't all that great—certainly nothing like we have today—but they were small and could, unlike bulky integrated amplifiers, be placed on an end table near one's chair.

Another convenience lies in the fact that having each component separate permits easier (and cheaper) alteration of a system. If you decide, for example, to upgrade your turner, it's the only piece involved—you don't have to replace the amplifier and record player at the same time. The same goes for servicing as well; if one unit develops a problem, they don't all have to be hauled off to the repair shop. (Of course, there's sometimes the question of which unit is the culprit—but that's another story.)

In a way, then, things have come full circle. Separate components became larger and more complex until they were too cumbersome or too intimidating for the general consumer. They were also rather expensive. The all-in-one unit known as a receiver, incorporating most of the electronic functions of the separates on a single chassis (and at a lower price) seemed like a good solution—even though initially they didn't work out too well. A 50-watt-per-channel tube receiver was virtually unlistifiable, and it could easily double as a hot plate if your stove broke down. Aside from these problems, they couldn't (mostly because of output-transformer limitations) match the frequency performance or distortion levels of the separate components of the day. With modern solid-state equipment, however, a 200-watt-per-channel receiver works better, runs cooler, and is even likely to be slightly smaller and lighter than yesteryear's 50-watt-per-channel unit. But if you are considering amplifier power much over 100 watts per channel, your interior decorator and your osteopath would both probably suggest that it's best to stick to separate components.
NO RUM REFLECTS PUERTO RICO LIKE RONRICO.

Puerto Rico is the Rum Island, the world’s foremost rum-producing region. And Ronrico is the rum—authentic Puerto Rican rum since 1860. Ronrico’s smooth, light taste has been the pride of six generations of Puerto Rican rum masters. One sip will tell you why.

RONRICO: AUTHENTIC RUM OF PUERTO RICO.
Demagnetizing

Q. How can I tell when my tape heads need to be demagnetized and whether, after they've gone through the ritual, my degauss er has done an adequate job?

KENNETH F. KELLY Warrenton, Va.

A. These are but two of the many recent inquiries I've received about the general topic of head demagnetization, so it seems time to take it up again.

In normal use, while recording and playing back tapes, record and playback heads, steel guides, and capstans acquire not only a film of loose oxide particles and other contaminants, but also a certain amount of "permanent" magnetism. I put the word "permanent" in quotation marks because, unlike the constantly changing magnetic fields impressed upon the tape itself, this residual magnetic force will stay with the heads, guides, etc. unless it is periodically removed by means of an inexpensive ($6 to $25) audio accessory called a "head demagnetizer." Further, if a recorded tape comes in contact with a magnetized part in the tape deck, the effects will be similar to those of exposing the tape to a magnet.

What are these effects? At a high enough level of magnetic strength, a permanent magnet can completely erase a tape. Indeed, some levels of magnetic strength, a permanent magnet pressed against the moving tape instead of an erase head. At the more typical levels of residual permanent magnetism encountered in home recording equipment, the effects are more subtle: the high frequencies tend to be erased somewhat, and in their place a certain amount of increased tape hiss is recorded on the tape as it passes across the magnetized part.

Removing this gradual magnetic build-up is very simple, as you'll see in a moment. But knowing when demagnetizing is needed and whether your procedure has been successful is more difficult, since the residual magnetism is invisible. There is a device called a "magnetometer" that is available in an inexpensive ($8.20) version from the R. B. Annis Company, 1101 North Delaware Street, Indianapolis, Ind. 46202 (part number ANN 2085) which will read residual magnetism directly (for use on tape recorders, I would strongly recommend adding $2.55 for the ANN 1 clip-on extension probe). Without such an instrument, you can carry out the recommended degaussing procedure only on a "rule-of-thumb" basis—that is, after every eight to twelve hours of use, which is about the same time it takes the heads to get dirty enough to require cleaning.

As to the proper demagnetizing procedure, begin by turning your tape deck off, removing all recorded tapes to a distance of 3 to 4 feet, and detaching any removable head covers that would otherwise obstruct access to the head area in the recorder. Plug in the demagnetizing unit (turning it on if an additional switch is provided) and slowly bring it up to each head (except the erase head, which doesn't require demagnetizing), tape guide, and capstan that lies in the normal tape path, moving the tip of the demagnetizer slowly up and down the exposed surface. If your degaussing unit does not have a soft plastic covering over its tip(s), cover it with a layer of plastic tape so that you will not scratch the delicate head surfaces. Then slowly (3 to 4 inches per second) withdraw the demagnetizer until it is several feet away from the machine before turning its power off. Failure to observe this last precaution can "zap" the heads with a powerful magnetic force that may leave them even more magnetized than they were before.

With a little practice, the whole operation won't take more than a minute. As for your question, Mr. Peterson, there is a high probability that the tapes in your collection may have suffered some sonic damage (beyond that imposed by your having recorded them on a poor deck to start with), and this will show up as excessive hiss and deficient treble when you play them on your new, more adequate machine. Playing these tapes will not cause any damage or measurably increase head magnetism on the new recorder. But, for the future, remember that better machine care gives better sonic results.

Counterfeit Cassettes

Q. I recently bought a carton of ten TDK SA cassettes by mail order, but they don't seem to perform as well as those I've used in the past, and the tape itself is dark gray instead of brown, making me think it is a different formulation. Is it?

ROBERT GRIFFITH New York, N.Y.

A. TDK has not changed its SA formulation. The tapes you bought are counterfeits, plain and simple. The labels say they are TDK SA cassettes, and they have been advertised as such in several newspapers in the New York metropolitan area at a mail-order price of $2.59 each in cartons of ten. There have been various tape rip-offs in the past in which unscrupulous manufacturers have packaged their counterfeit tapes to look as much like the real product as possible but have used slightly different names—such as "DKD," "Memmex," "Maxelite," or "Sonny"—so they could claim not to be really guilty of deception. The present case is the first one I have encountered in which the counterfeit has gone all the way in trying to pass his phony off as the original.

TDK and the legal authorities are, of course, taking steps to close down this brazen operator, but audiophiles themselves should realize that they contribute to the problem if they buy merchandise so clearly underpriced that there has to be something wrong with it. Besides sounding bad, counterfeit tapes could damage a tape machine either by jamming or through excessive head wear.

Flip-side Woes

Q. Why is it that on some of my tapes side one sounds better than side two and on others the reverse is true? On most I can't hear any difference between sides. Since the tape is the same, shouldn't that be true of all my cassettes?

SHELLY MASSEY Orlando, Fla.

A. Certainly there should be no difference in performance between the two sides of the same cassette; but, as your ears have detected, sometimes there is. The explanation is that certain "tolerances" are involved in molding the parts and assembling the shells of cassettes. To put it less delicately, there is a "slop" factor. Even with full-track calibrated test tapes, where care has been exercised to use the best available cassette shells and you would expect to get the same frequency response from both sides, you usually don't. At cassette speed even the slightest difference in the molding of the two halves of the shell can cause the tape to be presented to the deck's playback head at a different angle when playing the different sides; but unless the head is perfectly perpendicular to the edge of the tape, there will be high-frequency losses from what is known as "azimuth error." There's nothing much you can do about the problem except to use the best cassettes you can find.
The facts are stacked for Sony's metalists.

Metal's mellow. Metal sings. Metal soars in frequency response and rockets the dynamic range upwards. The new metal tapes are a multi-decibel boost to serious ears. But it takes a very special cassette deck to give you this higher-fi.

Two special "metalists" from Sony: The new TC-K65 and the new TC-K55II.

**Head Facts**

Sony’s new Sendust & Ferrite heads in our new decks are uniquely composed of ideal electromagnetic properties to give you maximum performance with any tape. Regular-fi, chrome, FeCr or metal.

Sendust, Ferrite and a head gap spacer of extremely hard quartz are engineered together for a mirror-like surface, long head life, sharp gap edges and no asymmetrical wear.

**Two-Motor Facts**

A linear-torque BSL (Brushless & Slotless) motor precisely maintains the all-important capstan speed. And an FG Servo-controlled motor drives the supply and take-up reels.

The BSL motor, in a major design breakthrough, has no slots to cause uneven torque distribution.

**Microcomputer Facts**

Sony's new microcomputer logic control lets you speed through any operation sequence by merely pressing the appropriate feather-touch bar.

This digital technology in each of our decks even allows you to record at any moment during playback.

**Other Facts**

Other distinguished features: The TC-K65 has a Random Music Sensor (RMS) that lets you preprogram any desired selections in any desired order.

A computer-like display signals your selections in bright LED lights. Clearly revolutionary LED Peak Meters display recording and playback levels with sixteen digits per channel. These new meters "hold" peak levels and respond instantly for truer recording.

The TC-K55II utilizes two large VU meters, and a five-element LED display indicates peak levels for more accurate recording.

The new Sony TC-K65 and the new Sony TC-K55II. The facts are in.
Put Sound Guard on trial.
Take up to 30 days
to try Sound Guard on your records.
Get your money back if not fully satisfied.

Judge the effectiveness of Sound Guard Record Preservative for yourself. Use it on your records for up to 30 days. Discover the long-lasting anti-static properties that work to reduce surface dust accumulation... and the newly designed buffer pad that more efficiently distributes the ultra-thin lubricant across the record to cut down friction, virtually eliminate record wear—and provide your music with long-lasting protection.

We're so confident you'll be pleased with Sound Guard Record Preservative that we can dare to give you a 30-day, money back offer. If you don't like what you hear, or for any reason are dissatisfied, send us your preservative kit,* a copy of your dated sales slip and we'll refund your money—no questions asked. That's an offer no other record care product seems to be making.

Our confidence also extends to the entire line of Sound Guard record care products: like the Record Cleaning Kit, Stylus Care Kit and Total Record Care System that contains both the preservative and cleaning kits.

You could spend your hard-earned money on all those other record cleaners, preeners, washers and brushes—or you can try Sound Guard at absolutely no risk. We think our offer is the best way to decide which one to try. You've got everything to gain—clean, better-sounding records—and best of all, nothing to lose.

*Return to: Sound Guard, P.O. Box 5003, Muncie, IN 47302. Offer expires April 30, 1980.
THE PHASE 8000 IS AS CLOSE TO PERFECT AS YOU CAN GET.

No other turntable can match the Phase 8000, because no other turntable has such advanced motors. You can't buy a quieter turntable. Or one with as low wow & flutter. Or one that tracks better.

The Phase 8000’s tangential tracking tone arm keeps the stylus in perfect 90° tangent with the grooves. It's the same way the master disc was cut, so the motion of your stylus is identical to the cutterhead stylus. There's absolutely no tracking distortion. No crosstalk. No skating force that can actually re-cut your grooves.

NEW LINEAR MOTOR ELIMINATES MECHANICAL LINKAGE
Other manufacturers have tried to move tangential tone arms with worm gears. Belts. Rollers. All with the same sad result: Mechanical connections pass on the noise and vibration of the motor.

The Phase 8000 solves this problem with an ingenious Linear Motor. The tone arm base is a permanently magnetized armature that glides along guide bars above electro-magnetic coils. The arm moves by direct induction — not mechanical connection. So there's virtually no noise.

Inside the tone arm. an opto-electronic detector cell senses the slightest tracking error, and instantly sends correcting signals to keep the arm on track.

NEW QUARTZ-PLL DIRECT DRIVE
Our new slotless, coreless Stable Hanging Rotor DC motor virtually eliminates "platter wobble." Quick start/stop. Speed deviation is lower than 0.002%.

If you want to hear all these technical advantages translated into musical improvements, contact your Phase Linear audio dealer.

Phase Linear Corporation, 20121 48th Ave. W., Lynnwood, WA 98036

CIRCLE NO. 49 ON READER SERVICE CARD
Recentlly came across a newsletter from a small loudspeaker manufacturer (Fried Products Company) in which were analyzed some of the problems that have arisen in the demonstration and use of the company’s loudspeakers with certain amplifiers and other ancillary equipment. Some interesting points were raised that I have been thinking about for a time myself: for example, air-conducted "vibration" from the speaker through the record player. Although, under most conditions, this may not produce obvious feedback, it can still cause a slight ringiness or muddiness in the sound.

My tests of record-player feedback susceptibility have so far been limited to a relative measurement of direct transmission of vibration through the turntable base. But of equal (or even possibly greater) importance is the effect of airborne sound from the speakers acting on the entire record player. This can influence the cartridge’s output over a wide range of audio frequencies instead of the under-200-Hz region to which direct transmission is usually limited. In the near future we will be including an air-transmission sensitivity test in our procedures in addition to base-conduction tests.

A second major disc-playback problem concerns "groove tracing" (often called "tracking"). A stylus that does not maintain full contact with the groove cannot accurately reproduce the recording. An occasional rattle on a bass-drum beat or a shattering on a soprano voice are common examples of mistracking. In my view, moderate deviations from a flat frequency response, or less than "state-of-the-art" channel-separation figures, are at most second-order problems in a phono cartridge or system. The ability to trace the grooves of any record one expects to play is of primary importance, since without this none of the other qualities has any meaning.

And, speaking of records, a portion of the newsletter dealt with potential problems in playing the new wide-range "audiophile" discs (direct-recorded or from digital tape masters). It was suggested that adding 20 or 30 dB to the usual 60-dB dynamic range found on very high-quality discs will require a corresponding increase in amplifier power (as well as speakers that can handle those high-level peaks and remain linear and undamaged). Since 20 or 30 dB represents a power increase of 100 or 1,000 times, the situation may seem somewhat scary, but fortunately things are not quite that bad. Just because a disc system has a potential 90-dB dynamic range is no reason to assume that all of it will be used. Practical limitations of the recorded material and the acoustics of the listening room will usually impose narrower limits. It is a rare home environment that has an ambient-noise level lower than 45 dB. (To achieve this level there must be no cars driving by the house, no radios or conversation in the next room, and no forced-air heating system or air conditioner in operation.) The usable dynamic range of the program—regardless of what it was in the original recording environment—is not likely to exceed 65 dB, and it will usually be less than that.

It would seem, therefore, that the extra amplifier power needed to cope with wide-range discs is not quite so staggering as might be feared. A power increase of about 6 dB over a more conventional installation will usually be sufficient. In other words, if your 50-watt amplifier produces adequate listening levels with conventional records, a disc with wide-range dynamics should be playable with full effect with perhaps a 200-watt-channel amplifier. This is well within the realm of practicality for the home.

The power problem was dramatically illustrated in our recent evaluation of the new dbx encoded-disc system. Played through the dbx decoder, these discs bring the potential of a 90-dB dynamic range into the home. (So far, hiss in the tape masters prevents that full range from being achieved.) If one is foolhardy enough to try to turn the volume up high enough to hear surface noise before the music starts, disaster is swift and certain. On the other hand, if the maximum volume is set during play to what one considers a realistic or "natural" level, the real benefit of a disc with a wide dynamic range becomes apparent. Noise is gone—completely, totally, and with it much of the unmistakably artificial character of recorded music. Operating the system in this manner requires little or no additional power unless you have been playing records at reduced levels to keep the noise from being audible.

Whether your speakers can deliver 110-dB peaks, or whether you would listen at that level if you could, is another matter. As a rough guide for judging the suitability of your speaker and amplifier for this level of performance, use the sensitivity ratings in our test reports (such as "90-dB SPL measured at 1 meter for 2.53 volts input"). If you were using only one speaker, about 3 dB should be subtracted to approximate the level at a normal listening distance; a second speaker will add 3 dB, so the published figure can be used directly. In the example cited, another 20 dB would be needed to reach the desired 110-dB level. This calls for a hundredfold increase in amplifier power, or an actual...
Having set a most impressive standard of performance and value in its initial product, the DH-101 preamplifier, the David Hafler Company has designed a companion power amplifier, the DH-200. The hallmark of Hafler products (Hafler was the founder of Dynaco a quarter century ago) is maximum performance with minimum complication (since complexity is usually synonymous with increased cost and decreased reliability). And so the DH-200, as might be expected, is not "just another power amplifier."

The output stages of the DH-200 feature power MOSFET (metal-oxide silicon field-effect transistor) devices instead of the almost universally used bipolar transistors. Unlike bipolar transistors, which tend to "run away" and self-destruct when they become too hot, thus requiring protective circuits to enable them to survive under rigorous operating conditions, MOSFETs are self-protecting. A number of sonic aberrations have been attributed to some of the protective circuits used in power amplifiers when they are presented with certain low-impedance or reactive loads. In some bipolar power amplifiers the solution has been to use a large number of parallel-connected transistors so that they will never be stressed sufficiently to require current-limiting protection circuits.

The Hafler DH-200 needs no such protection, and it has none. It is, of course, fully protected against damage from component failure or gross misoperation by a power-line fuse, thermal circuit breakers, fuses in the d.c. power supply to the output stages, and speaker-line fuses. None of these has any effect on the dynamic operation of the amplifier or on its sound.

Each output stage uses four MOSFETs in parallel pairs, and, as in the DH-101 preamplifier, the preceding stages are in a balanced-differential configuration. The two channels are constructed on identical individual circuit-board modules screwed to the heat sinks; the modules are factory wired and tested even in the kit version of the amplifier. The heavy-duty power supply occupies most of the center of the amplifier chassis.

Even today, when amplifier distortion ratings are outstripping the ability of laboratory instruments to measure them, the Hafler DH-200 stands out from the crowd. The official power rating of the amplifier is 100 watts per channel into 8-ohm loads from 20 and 20,000 Hz, with total harmonic distortion no more than 0.02 per cent and intermodulation distortion no greater than 0.005 per cent from 1 to 100 watts into 8 ohms. While these figures are very good, they are not unique. The typical distortion figures quoted for the amplifier are another matter: at 1,000 Hz, the typical distortion is 0.0015 per cent, and at 10 kHz it is 0.005 per cent, both at rated power. The rise time and slew rate are specified as 2.5 microseconds and 30 volts per microsecond, respectively.

The Hafler DH-200, finished in flat black like the DH-101 preamplifier, is 16 inches wide, 5 1/8 inches high, and 10 1/2 inches deep. It weighs 26 pounds. The kit is priced at $299.95, and the factory-wired version is $399.95. Several options are available for it: a 19-inch rack-mount panel is $24.95, an input-bridging circuit that converts the DH-200 into a 300-watt mono amplifier is $24.95.

(Continued on page 42)
Nobody's perfect. But Technics quartz-locked, direct-drive Q-Series: the Q-2 semi-automatic and Q-3 fully automatic come incredibly close.

So close that many discos and FM stations choose Technics quartz-locked, direct-drive turntables over any other. It's no wonder, with speed accuracy of 0.002%, wow and flutter of only 0.025% WRMS and rumble of -78dB (DIN B). They're impressive specs.

What's just as impressive is Technics soft-touch in-line controls conveniently mounted on the front panel. You can operate every electronic function without ever lifting the dust cover.

Or Technics statically balanced S-shaped tonearm. With only 7 mg friction on both the vertical and horizontal planes, it's more than sensitive, it's sensational. Even the computer-designed headshell contacts are gold-plated for maximum conductivity.

To help protect against acoustic feedback, Technics Q-Series turntables are all mounted in a precision aluminum diecast base with a unique non-resonant compound, TNRC. It's so effective it resists feedback at the highest music levels.

By this time you might think you have to be rich to afford Technics Q-Series. You don't. Both models are surprisingly reasonable.

Technics Q-Series. We can't say they're perfect. You will.

We can't say the speed accuracy of our new quartz-locked turntables is 100%. Just 99.998%.
and for $25 additional one gets a multitap power transformer for operating the amplifier from 100-120-volt and 200-240-volt, 50/60-Hz overseas power sources. The standard transformer is for 120-volt, 60-Hz operation only.

- **Laboratory Measurements.** The FTC-mandated preconditioning period left the top cover of the DH-200 fairly hot directly above the output transistors, but the heat sinks themselves were relatively cool. The 8-ohm, 1,000-Hz total harmonic distortion (THD) was extraordinarily low—between 0.0005 and 0.006 per cent for power outputs from 0.1 to 30 watts, a mere 0.0016 per cent at the rated 100 watts output, and 0.003 per cent at 130 watts (the outputs clipped at about 135 watts per channel). The intermodulation distortion was close to the residual of our Crown IMA analyzer, reading about 0.003 per cent for all power outputs up to about 10 watts, 0.008 per cent at 100 watts, and 0.012 per cent at 130 watts.

We also measured the distortion of the Hafler DH-200 using 4- and 2-ohm load resistors. The 4-ohm distortion was between 0.0008 and 0.001 per cent from 0.1 watt to 10 watts and increased to 0.008 per cent at 170 watts before clipping at 193 watts. Normally, the speaker-output fuses of the DH-200 are rated at 2 amperes, but they can safely be increased to 5 amperes when low-impedance loads are to be used. The 5-ampere fuses limited the maximum continuous output into 2-ohm loads to 50 watts, but the THD was only 0.001 per cent at 0.1 watt, 0.0016 per cent at 10 watts, and 0.0022 per cent at 50 watts. Clearly, the excellent performance of the amplifier is maintained even with extremely low load impedances. The IHF clipping headroom, relative to the rated 100-watt output, was 1.3 dB at 8 ohms, and the dynamic headroom was 2.56 dB (180 watts). Into 4 ohms, the maximum short-term power output was 31.2 watts, and into 2 ohms it was a staggering 47.8 watts per channel!

The low distortion of the DH-200 was maintained over the full audio bandwidth. Driving 8-ohm loads, the distortion at rated power was typically 0.0015 to 0.002 per cent between 50 and 5,000 Hz, increasing to 0.01 per cent at 20 Hz and 0.012 per cent at 20,000 Hz. At lower power outputs, the distortion was less at all frequencies. At 10 watts, for example, the THD was between 0.0005 and 0.001 per cent from 45 to 4,000 Hz and did not exceed 0.005 per cent over the full 20- to 20,000-Hz range.

The frequency response was as flat as our test instruments, with a variation of less than ±0.25 dB between 20 and 20,000 Hz. The square-wave rise time was 2 microseconds and the slew rate was 33 volts per microsecond, both figures slightly better than the rated performance. The IHF slew factor was 7.5 (with a full-power-input drive level the output waveform began to distort at 150 kHz). The input sensitivity, as rated, was 150 millivolts for a reference output of 1 watt (1.5 volts for the rated 100 watts). The A-weighted noise output was less than 100 microvolts, which is better than the rated –90 dB relative to 1 watt output (or –110 dB referred to rated power output).

- **Comment.** The construction of the Hafler DH-200 from a kit is largely a matter of mechanical assembly, since the two circuit boards are assembled and tested at the factory. Our kit builder tells us that it took her about two evenings to assemble the DH-200 and it worked the first time she switched it on.

The test data for the DH-200 speaks eloquently for the excellence of its performance. Even an approximate measurement of the distortion levels in this amplifier requires the most advanced test equipment and special techniques (not many audio signal sources have inherent distortion levels well below 0.0005 per cent!).

It had been suggested to us that the sound of the Hafler DH-200 was especially "light" in the bass and that it had been designed to minimize a number of the lesser-known distortions, including the "interface intermodulation distortion" that can occur when the voltage generated in the loudspeaker voice coil by its motion (its "back emf") enters the amplifier through its feedback circuit. We did not attempt to verify this, nor did we use any other non-standardized distortion measurements. We have no reason to question the validity of the claims made for the DH-200 in this regard, and it certainly proved itself to be as nearly perfect an amplifier as we have ever seen, by any accepted performance or test criterion.

As for the "sound" of the amplifier, we can only repeat that, to us, a really good, properly operating amplifier has no "sound" of its own. Under any reasonable listening conditions that we could devise, the DH-200 sounded no different from other very high quality amplifiers with which we compared it. One thing is sure, it will never limit the ultimate sound quality of a music system, and it deserves the best signal source and speakers.

One special test situation in which the DH-200 excels (as expected), although it would occur in only a small percentage of
Be possessive. Curl up in the comfort of your favorite chair within a K-340 Concert Hall of your very own. There you can be sensually involved and you disturb no one else.

The new AKG K-340 is the first uniquely engineered headphones to combine the advantages of "electrostatic" and dynamic transducers together with passive diaphragms. The result of intensive studies in psychoacoustics, they are designed to effectively produce sound which precisely simulates the listening experience one enjoys from high quality speakers in free space. Their superior sound offers hours of contentment.

Listen to these "live" performance headphones at your AKG dealer today, or write us directly.

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in microphones, headphones, phonocartridges, reverb units.

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Polk Model 10 Speaker System

Polk Audio is a small loudspeaker manufacturer whose products are distributed principally through high-fidelity specialist dealers. Although these stores often carry very high-price products, Polk speakers are priced competitively with better-known and more widely distributed brands.

The Polk Model 10 "Studio Monitor" is a medium-size floor-standing system, although Polk suggests mounting it on a pedestal (which they also manufacture) that raises the speaker about 9 inches off the floor and tilts it back slightly. The Model 10 is a two-way system with a rather unconventional driver configuration. The bass and much of the midrange is handled by a pair of nominally 6½-inch-diameter midrange/woofers located side-by-side just above the center of the speaker's front panel. Just above them is a 1-inch soft-dome tweeter. Below the woofers, and occupying most of the lower portion of the panel, is a nominally 10-inch-diameter passive-radiator. There are no user-accessible level-balancing adjustments.

The basic design philosophy behind the Model 10 is clearly presented in Polk's literature. Polk sought an "open, boxless, three-dimensional" sound, a smooth, accurate frequency response across the musically relevant audio band (by implication, infrasonic and ultrasonic responses were not part of the goal), excellent transient response across the 30- to 20,000-Hz band, nearly perfect hemispherical dispersion, stable stereo imaging, enough efficiency so that the system could be driven by virtually any high-fidelity amplifier, and reasonable size to permit bookshelf mounting if desired.

It is easy to appreciate the advantages of using a pair of small-diameter (but long-throw) woofers that can radiate much of the midrange as well as the upper- and mid-bass frequencies. Avoiding a crossover in the midrange (the most audibly important part of the musical spectrum) is the best way to eliminate or minimize many of the colorations that have been attributed to crossover networks.

Polk specifies the crossover frequency to the tweeter as 3,000 Hz, but it was not detectable by ear or by measurement. The crossover network uses air-core coils and precision capacitors and resistors to provide 12-dB-per-octave cutoff slopes. The transition from the driven elements to the passive radiator is stated to be at 60 Hz, and this "acoustical crossover" is Polk's basis for describing the system as a "three-way design." The semantic distinctions between "two-way" and "three-way" speaker systems aside, the passive cone does extend the useful range of the Model 10 into the low bass without requiring a conventional woofer or a low-frequency crossover network.

The Polk Model 10 system is 28 inches high, 16 inches wide, and 11⅞ inches deep. It weighs about 45 pounds, a little bulky for bookshelf use. The cabinet is finished in rosewood veneer, and the black-cloth-covered grille assembly is held in place by plastic snaps. The terminals are recessed into the rear of the cabinet together with a fuse that protects only the tweeter from overdrive damage. When mounted on the optional wooden tilt base, the highest point on the speaker cabinet is about 37½ inches above the floor. The suggested retail price of the Polk Model 10 is $250. The stands are $45 a pair.

- Laboratory Measurements. Polk suggests angling the Model 10 speakers slightly inward for best dispersion and stereo effect. We did so for most of our listening (it seemed to give best results) and also measured the frequency response of the speakers with the two both angled and facing forward. The results were absolutely identical. The dispersion of the 1-inch dome tweeter was exceptional, and we could measure no significant difference between the outputs of the left and right speakers with the microphone on the axis of the left unit and about 30 degrees off the axis of the right speaker. The low-frequency crossover networks.

(Continued on page 49)
Our pressure pad is locked into a special four-sided retainer to maintain perfect tape-to-head contact.

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Our leader not only keeps you from making recording errors, it also keeps your tape heads clean.

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The Bose® 901® - past, present, future.

Past  The first Bose 901 Direct/Reflecting® speaker was introduced in 1968. It was the result of research started twelve years before at M.I.T. under the direction of Dr. Bose. This speaker introduced the fundamental advances of a balance of reflected and direct sound, nine matched, full-range speakers, active equalization and uniform power response — all very controversial concepts at the time. But the performance produced by this new technology soon earned for the 901 speaker its international reputation as the most highly reviewed loudspeaker regardless of size or price.

Present  The founders of Bose, all from the field of science, decided that Bose would reinvest 100% of its profits back into the company to maintain the research that was responsible for the birth of the 901 loudspeaker. The unprecedented success of the Bose® 901® in world markets, coupled with this 100% reinvestment policy, has created what we believe is by far the best research team in the industry. This team has made over 300 design improvements in the 901 speaker since its introduction — including such basic developments as the Acoustic Matrix™ Enclosure (illustrated), the helical, low impedance voice coil and the advanced full-range precision drivers. And the new concept of controlling the spatial properties of the 901 speaker has just been introduced via the unique Bose Spatial Control™ Receiver.

Future  At Bose we have decided that “90-” will continue to be the designation of the product that represents the state-of-the-art of our technology — whatever size, shape or form that product may take. In our research we continue to look at any and all technologies and product concepts that might hold possibilities for better sound reproduction. Consistent with the past, we will introduce new technology into the 901 speaker as it is developed — often without announcement. This is our dedication to the goal that whenever you invest in the Bose® 901® system you will receive the latest technology and the best in music reproduction.

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Better sound through research.
frequency response was measured with the microphone close to the cone of one driven woofer (the two are in parallel) and again in front of the passive radiator. The two curves were combined, after correcting for the total radiating areas of the direct and passive cones, and the bass curve was spliced to the higher-frequency curve (which was made in the reverberant field of the room).

The bass response in the composite curve was gently emphasized, peaking at +2.5 dB in the 60- to 80-Hz range, compared with the midrange level. The output fell at 6 dB per octave below 60 Hz, and at 20 Hz it was only 6 dB below the 1,000-Hz level. The passive-cone output was predominant below 55 Hz. (There were minor irregularities in the midrange response, but our measurement method does not permit us to separate the contributions of the room and the speaker in this frequency range clearly.) The output then rose smoothly above 8,000 Hz to a maximum of +5 dB at 15,000 Hz. Overall output variation, relative to the 1,000-Hz level, was ±5 dB from 23 to 20,000 Hz.

The low-frequency distortion was measured separately for the driven and passive cones at nominal drive levels of 1 and 10 watts (based on a nominal 8-ohm impedance). At 1 watt, distortion was about 1 per cent from 100 to below 40 Hz, increasing to 5.5 per cent at 25 Hz (the distortion percentages at the passive and driven cones were taken at frequencies where each was dominant). A 10-watt drive level increased the distortion considerably, to between 2 and 5 per cent in the range from 100 to 33 Hz and to 12 per cent at 30 Hz.

The speaker impedance reached a minimum of 4 ohms at 33 and 150 Hz, and a maximum of about 15 ohms at 55 Hz (there was another maximum below 20 Hz, where we did not measure it). From about 500 Hz upward, the impedance was always at least 7 ohms. Strictly speaking, the Model 10 should be rated at 4 ohms, although Polk gives the impedance rating as 6 ohms.

The sensitivity of the Model 10 was moderate, so that a drive level of 2.83 volts (nominal 1 watt into 8 ohms) produced a sound-pressure level of 89 dB at a 1-meter distance. This is relatively low for a vented system (a passive radiator can be considered a vent substitute or equivalent), but it is higher than the sensitivity of a typical acoustic-suspension system. The tone-burst response of the Model 10 was exceptional; not only did it produce nearly ideal tone bursts over the full audio range, but the microphone placement was almost completely noncritical. Our experience with tone-burst testing suggests that the ability to generate "nice looking" tone bursts at a few selected frequencies or at specific microphone positions means little. Most speakers can do that. When a speaker can deliver clean tone bursts at almost any microphone location and at almost any frequency in the audio band, it can be said to have a really good transient response. The Polk Model 10 speaker system meets that tough criterion fully.

Comment. To the extent that measurements of any kind can characterize the performance of a loudspeaker, the Polk Model 10 is certainly a very fine speaker. Although its bass distortion is not necessarily the lowest, it is not audible under any reasonable conditions of use. The frequency response covers the entire audio range with commendable flatness—again, not quite so flat as a few other speakers we have tested, but a lot flatter than many others.

Some of Polk's key design goals have definitely been realized. The transient response of the Model 10 is absolutely first-rate, and the hemispherical dispersion is superb (we cannot recall measuring better dispersion on any forward-radiating speaker). The speaker sensitivity is adequate for use with a 10-watt amplifier, yet it could absorb the full output of a 200-watt amplifier without damage.

We have left the purely subjective matters to the last. In our judgment, Polk has achieved something very close to the "open, boxless, three-dimensional" quality they were seeking. We would probably have chosen those adjectives ourselves to describe the sound of the Model 10, but Polk has sparred us the chore of finding suitable descriptive terms. These characteristics are not easily definable, but once one has heard that quality in the sound of a speaker, it is not soon forgotten. Polk is not the only speaker manufacturer to have achieved it, by any means, but their numbers are few, and especially so in this price range.

We compared the sound of the Polk Model 10 to that of several other fine speakers, both larger and smaller, and we were rather surprised at the magnitude of the differences we heard. The Model 10 has a slight tendency toward warmth, possibly due to its slightly elevated mid-bass response, and a crisp brightness from its gently rising top end (which may also contribute to its "open" quality). Both of these "colorations" are very subtle—more of a faint tint than a coloration, actually—and the total effect is of an exceptionally pleasing sonic balance with plenty of spaciousness or "depth." Our overall reaction is that the Polk Model 10 sounds good—very good!

Circle 141 on reader service card

In the ST-8077 AM/FM stereo tuner, Technics appears to have carried "low-profile" styling to its ultimate. The 1⅞-inch-high panel contains all the control and display features required and expected of an AM/FM tuner, all of them easy to read and operate. Across almost the full width of the panel is a narrow slot, most of which is devoted to the tuning-dial function. The dial calibrations are on the panel above and below the slot, within which is visible a traveling red pointer flanked by two small green arrows (Continued overleaf)
pointing left and right. When the tuning approaches the frequency of an FM station, one of the arrows is extinguished and the other shows which direction the pointer must be moved for correct tuning. At the center of the channel, both arrows are extinguished. In AM reception, both arrows remain lit, but they become dimmer as one approaches the center frequency of a broadcast channel.

When the tuner is correctly set to a reasonably strong signal, both of the arrows are extinguished.

The tuning knob (relatively small because of the limited panel height) is to the right of the dial, and at the other end of the panel is a pushbutton power switch. To its right, within the dial cutout, are five small, thin pushbuttons. The ONE/STAN button replaces the tuner's audio outputs with a 400-Hz tone, whose level is nominally equivalent to 50 per cent FM modulation, for setting tape-recording levels. The next button is ACTIVE SERVO LOCK, a form of amplified AFC that tunes the ST-8077 very accurately to the frequency of a received signal.

The following two buttons are for the automatic stereo/mono switching and muting, whose functions are combined. In the ON/AUTO position of the first switch, the muting is active and the tuner will switch automatically to stereo if a pilot-carrier signal is present in the received signal. Pushing the button places the tuner in the MONO mode and disables the muting. The adjacent button, marked FINE and STANDARD, sets the level of the muting threshold (which is identical with the stereo threshold). The FINE setting requires a higher signal level to unmut the tuner, ensuring that those signals that get through will have a better quality of reception. Finally, the fifth button is the AM-FM selector.

At the right of the dial cutout are several LED indicators. Red bars show whether the FINE or STANDARD muting level has been selected and when a stereo broadcast is being received. A wider, green bar displays the operation of the active servo-lock system. When an FM signal is tuned in, if only to the point where one of the tuning arrows goes out, the green bar begins to flash on and off. In a few seconds it comes on continuously to show that the tuner is locked to the signal, and both tuning arrows go out. The only visible indication that AM reception has been selected (other than the position of the pushbutton) is the complete extinguishing of the signal lights to the right of the dial.

On the rear of the ST-8077 are a hinged AM ferrite antenna and terminals for a wire antenna plus 75- and 300-ohm FM antennas. In addition to the audio-output jacks, there is a second pair of jacks for connection to the vertical and horizontal inputs of an oscilloscope to monitor multipath distortion.

Although circuit details are sparse, the literature for the ST-8077 indicates that its i.f. amplifier uses a combination of ceramic and surface acoustic-wave (SAW) filters for high selectivity and a flat group-delay characteristic (for low distortion). A 19-kHz pilot-canceling circuit is used instead of the more common low-pass filter, allowing the tuner's frequency response to extend beyond 15,000 Hz.

Typical sensitivity and channel-separation curves are printed on the grey cover of the Technics ST-8077. The overall dimensions of the tuner (including the rubber feet under the cabinet) are 17⅝ inches wide, 12½ inches deep, and 2 inches high. Suggested retail price is $300.

- Laboratory Measurements: The FM mono sensitivity was 2.4 microvolts (µV), or 13 dBf. Stereo sensitivity was set by the automatic switching and muting threshold, which was between 19 and 28 dBf (5 to 13 µV) in the STANDARD mode. The two numbers indicate that the muting cuts out when the higher level is reached and then does not turn on until the level drops below the lower value. This prevents annoying dropouts, or transitions between stereo and mono, that could result from signal fluctuations caused by passing aircraft and the like. In the FINE mode, the threshold was between 37 and 47 dBf (40 to 130 µV).

The more important 50-dB quieting sensitivity was 16 dBf (3.5 µV) in mono, with 1.1 per cent total harmonic distortion (THD). In stereo, it was 37.6 dBf (40 µV), with 0.56 per cent THD. The ultimate distortion reading, at 65 dBf (1,000 µV) input, was 0.07 per cent in mono and 0.115 per cent in stereo. At that input level, the signal-to-noise ratio was 75 dB in mono and 70 dB in stereo.

The tuner's stereo frequency response was ruler-flat over most of the audio range, and at high frequencies (where it often drops off in tuners that use low-pass filters) the output actually rose slightly, to +1 dB at 15,000 Hz. The stereo channel separation was almost perfectly symmetrical between channels, measuring 46 dB in the midrange and decreasing to 29 dB at 30 Hz and 34 dB at 15,000 Hz.

The FM capture ratio was 1.6 dB at 45 dBf (100 µV) input and 1.75 dB at 65 dBf. The AM rejection was relatively low, though adequate for most situations, measuring 49 and 55 dB at inputs of 45 and 65 dBf, respectively. Image rejection was a good 77 dB. The alternate-channel selectivity was 70 dB and the adjacent-channel selectivity was 10 dB. The pilot-carrier carrier reduced the 19 kHz carrier leakage in the audio to −56 dB, and the tuner's hum level was −68 dB. The level of the REC LEVEL tone was equivalent to about 80 per cent modulation.

The AM-tuner frequency response was rolled off at low as well as high frequencies, being down 6 dB at 80 and 3,100 Hz. We noted that the muting circuit, when in use, operated on AM as well as FM.

- Comment: Judging by its measured performance, the Technics ST-8077 is a competent tuner, comparable to most others we have seen in its price range. It is not in the "super-tuner" class, but its audio performance is still likely to be better than that of any

(Continued on page 52)
They say it's the most sincere form of flattery. And frankly, we're flattered.

The Dahlquist DQ-10 has become the most imitated speaker system in high fidelity. There's been a cascade of obvious imitations, with prices going up and down the scale.

But the Dahlquist approach is locked into patents embodying the solution to the critical problems of time delay and diffraction delay distortion. Thus, the impersonators can offer only the words, not the music of the original.

The Dahlquist Phased Array and Open Air Mounting patents give the DQ-10 its extraordinary qualities: the ability to reproduce music with unprecedented clarity and spaciousness. It just doesn't make sense to spend hard-earned money for an imitation (at any price), when you can have a pair of the original at surprisingly low cost.

Write to us and we'll send complete information on why the DQ-10 sounds the way it does. Or better still. Ask your dealer for a demonstration. You may find that you don't care why it sounds so great. Only that it does.

Dahlquist
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CIRCLE NO. 16 ON READER SERVICE CARD
of the FM stations it will receive; in other words, the sound quality will ultimately be determined by the station and the broadcast material rather than by the tuner. In respect to the human-engineering properties of the ST-8077, we can say that its miniaturization in the vertical dimension has been carried out with impressive success. One does not have to squint at the controls or have unusually small hands to use this tuner. In its handling, the ST-8077 "feels" like any full-size model.

Among the controls and display features, we noted the absence of any FM signal-strength indicator. However, in our use of the tuner, we found that keeping the muting threshold at fine eliminated most of the need for a signal-strength meter. If a station was heard, it was automatically of good listening quality. If a signal was listenable in standard but was muted in fine, that was a good indication that the antenna orientation should be changed.

Insofar as tuning accuracy was concerned, the active servolock was as near perfect as could be desired. We were never able to improve on the measured performance of the tuner by disabling the lock and fine tuning the unit manually. All in all, we found the Technics ST-8077 to be a competent performer, with nice styling, selling for a reasonable price.

**Circle 142 on reader service card**
The traditional KEF accuracy in music reproduction now combined with a higher level of efficiency. Whether for use with amplifiers up to 100 watts or music centers as small as 10 watts, the two new KEF speakers—Model 303 and Model 304—can achieve surprisingly loud volume levels without any sacrifice of the tonal quality for which KEF is world-famous.

Visit your authorized KEF dealer for a thorough demonstration.

For his name and product information write to KEF Electronics, Ltd., c/o Intratec, P.O. Box 17414, Dulles International Airport, Washington, DC 20041.

In Canada: Smyth Sound Equipment, Ltd., Quebec J4H 3V7.
When we drove 4-ohm loads, the distortion readings were quite similar at low power outputs. Above 10 watts, the distortion rose to 0.02 per cent at 75 watts and the clipping power was 136 watts per channel. Operating the amplifier into 2-ohm loads (for which it is not rated) resulted in somewhat higher distortion readings, and the internal current limiting of the amplifier held the maximum power down to 50 watts. Even so, the distortion was under 0.05 per cent at most power outputs and reached 0.1 per cent at the clipping point. The 8-ohm intermodulation distortion was about 0.03 per cent at very low power outputs, decreased to 0.007 per cent at 5 to 10 watts, and rose to 0.03 per cent at 75 watts and 0.09 per cent at 100 watts.

Across the audio-frequency range, when we drove the amplifiers into 8-ohm loads, the distortion at rated power was about 0.01 per cent from 20 to 10,000 Hz and rose slightly to 0.025 per cent at 20,000 Hz. At reduced power outputs the distortion was substantially lower at most frequencies but was about the same as the full-power readings at the highest frequencies.

Through the aux input, 20 millivolts (mV) was sufficient to drive the amplifier to a reference output of 1 watt with a noise level (A-weighted) of −80.4 dB. The phono (MM) sensitivity was 0.6 mV with a −67.5-dB noise level. We did not measure the MC mode of operation, which was evaluated by use tests. The PHONO (MM) input termination was 48,000 ohms in parallel with 125 picofarads. The phono stages overloaded at 185 mV at 1,000 Hz and at equivalent input levels of 194 mV at 20 Hz and 168 mV at 20,000 Hz.

The IHF dynamic headroom of the amplifier into 8-ohm loads was 1.74 dB (112 watts). Into 4-ohm loads the maximum short-term power was 170 watts (the amplifier specifications do not list a 4-ohm continuous-power-output rating). The 8-ohm clipping headroom was 1.25 dB, based on the 100-watt observed output. The amplifier rise time through the aux input was 8 microseconds, with a slew rate of 13 volts per microsecond. Through the power-amplifier section alone, the slew rate was 32 volts per microsecond. The IHF slew factor exceeded our measurement limit of 25.

The calibration of the power-output indicators was relatively accurate, within 10 per cent at all indicated levels. The lights responded well to short pulses, reading 100 per cent of steady-state values on the 20-millisecond tone bursts we used for the dynamic-headroom measurement.

The tone controls provided the great diversity of response characteristics we would have expected from their multiple-turnover frequency design. At one extreme was the conventional type of response with the 400-Hz and 2.5-kHz turnover points, much like those of many amplifiers we have tested over the years, and at the other extreme was the very subtle correction afforded by the 100-Hz and 10-kHz turnover frequencies. The loudness compensation boosted both low and high frequencies as the volume-control setting was reduced. The high filter had a 6-dB-per-octave slope, with the −3-dB response at 6,500 Hz. The subsonic filter is rated to have a 12-dB-per-octave slope, but this is not attained within the audio range. Its −3-dB response frequency was 25 Hz, so although it had no audible effect on the program it could reduce rumbles quite effectively.

The RIAA phono equalization was accurate within 0.5 dB overall from 60 to 20,000 Hz, dropping to −1.5 dB at 20 Hz. There was less than 0.25 dB change in phono response at any frequency when the measurement was made through the inductance of a phono cartridge.

The FM tuner section had an IHF usable sensitivity in mono of 13.8 dBf (2.6 microvolts, or µV). The stereo usable sensitivity was set by the switching threshold of 22 dBf (7 µV), which happened to correspond to the 3 per cent THD + N (total harmonic distortion plus noise) criterion for this rating. The more important 50-dB quieting sensitivity was 17 dBf (3.9 µV) in mono, with 0.6 per cent THD, and in stereo it was 36 dBf (36 µV) with 0.7 per cent THD. The FM signal-to-noise ratio in mono (at 65 dBf, or 1,000 µV input) was 73 dB, in stereo it was 68.5 dB. The corresponding distortion readings were 0.11 per cent and 0.35 per cent.

The FM frequency response was flat within +0.7, −0.3 dB from 30 to 15,000 Hz. The channel separation was very wide and uniform with frequency, measuring between 38 and 45 dB from 30 to 15,000 Hz. The capture ratio was 1.25 dB, and the AM rejection was 60 to 64 dB, depending on signal strength. The alternate-channel selectivity was a very good 82.5 dB (although rather asymmetrical about the tuned frequency). The adjacent-channel selectivity averaged 8.5 dB. The image rejection was a mere 45 dB and the 19-kHz pilot-carrier leakage into the audio outputs was down only 38 dB.

The quartz-locked system tunes the receiver accurately to frequencies that are multiples of 100 kHz. If the signal is first tuned in (Continued on page 56)
How to get an honest 30Hz from a 1.25 cubic foot speaker system.

The story behind the new KLH Computer Controlled Loudspeakers.

With the introduction of acoustic suspension more than 20 years ago, the loudspeaker industry took an impressive step forward. This technology allowed speaker manufacturers to achieve full-range frequency response in a cabinet substantially smaller than any previous full-range loudspeaker.

Since then, breakthroughs have come and gone in the industry. But none that has significantly reduced the size of a true, full-range system.

The reason is actually quite simple. Accurate bass reproduction requires a woofer to displace a large volume of air. In a small system with a small woofer, the woofer cone must therefore travel a long way to reproduce the lower frequencies.

Although a small woofer is perfectly adequate most of the time, occasional high level, low frequency signals can drive the cone well beyond its intended excursion, causing severe overload distortion.

To avoid this, it has been necessary to attenuate lower frequencies in smaller systems. Which is why small speakers have always had compromised bass.

The KLH Analog Bass Computer.

To solve this problem, we developed a completely new approach — computer control.

We designed a separate component, the KLH Analog Bass Computer, as an integral part of the entire speaker system. This component sits next to the receiver or amplifier and constantly monitors its output. The computer derives an electronic analog of cone motion, and controls the woofer at the precise instant at which overload distortion would otherwise occur.

With this kind of accurate, reliable control, our designers were free to extract the optimum theoretical performance for any given cabinet size. And develop a line of loudspeakers that can deliver extended bass response in cabinets that are substantially smaller than ever before possible.

The KLH-1 is one example. From a 1.25 cubic foot cabinet, it delivers bass to 30 Hz (-3dB) at 105 dB s.p.I. with absolutely no possibility of overload distortion.

Beyond the Computer.

Since the Analog Bass Computer and the speakers must be designed as a single, integrated system, we started from scratch with the objective of optimizing our new technology.

To achieve the widest possible bandwidth with acceptable efficiency, we employed sixth-order equalized systems. Combined with the Analog Bass Computer, these systems provide a -3dB point equal to conventional acoustic suspension systems of at least four times their volume.

In keeping with our objectives, we also refused to compromise other elements of the design.

For our cones, we selected polypropylene, a material first developed for use in studio monitors by BBC engineers. The movement of polypropylene reflects the electrical signal more faithfully than either paper or bextrene. The result is a remarkably clear, transparent, uncolored midrange.

For our speaker baskets, we used die-cast aluminum rather than stamped steel.

And we used massive magnet assemblies, optimized for the sixth-order design.

Three Applications.

Finally, we applied all we had learned to accomplish three distinct objectives.

Our first objective was to produce a speaker that raises the absolute level of low-frequency response in a cabinet that is still practical for the home environment. The new KLH-1 does exactly that. It delivers flat bass to 30 Hz (-3dB) from a floor standing unit just 11" x 301/2" x 101/4". At a price per pair of $1100** including Analog Bass Computer.

Our second objective was to provide the best possible combination of price and performance. Our solution is the KLH-2. At $660** per pair with computer, the KLH-2 can deliver flat bass to 38 Hz (-3dB) at 102 dB s.p.I. from a cabinet that measures 101/4" x 21" x 81/2".

Our third and final objective was to design a moderately priced speaker with performance equal to or better than anything near the cost. In a cabinet one fourth the size. This is the KLH-3. It measures 81/2" x 121/2" x 6", delivers bass to 40 Hz (-3dB) at 95 dB s.p.I. and costs $450 ** per pair including computer.

The new line of KLH Computer Controlled Loudspeakers.

Listen to them.


KLH

*Manufacturer's suggested retail price.
with the lock circuit disabled (as the manual recommends), the tuning is extremely critical and the locking action is not always stable when the circuit is activated. We preferred to leave the quartz-locked tuning in operation at all times. This requires only moderately slow tuning through a signal channel until the green light comes on, after which the tuning is optimized automatically for lowest distortion and noise. The signal-strength indicators came on at levels from 33 to 63 dBf (24 to 800 μV). Thus, so long as at least one of the light segments is on, the receiver performance should be satisfactory. The AM tuner section had a wider frequency response than most we have tested—down 6 dB at 120 and 7,500 Hz. Its quality was quite good, though hardly comparable to that of the FM section.

Comment. The Sanyo Plus 75 is a handsomely styled receiver, and it is not difficult to use in spite of the large number of controls on its front panel. The tone controls of the Plus 75 are among the most versatile on the market; they can be set to give the most subtle modification of response at the frequency extremes (or in the midrange, for that matter). On the other hand, anyone who wishes to hear an unmistakable effect using the tone controls will have no difficulty accomplishing that with Sanyo's control system. Whatever one's preference, the availability of thirty bass responses, thirty treble responses, and ten midrange responses, usable in any combination, makes possible a near infinite variety of effects.

Although we did not make measurements on the moving-coil mode of the phono input, we operated the receiver with an Audio-Technica AT-30E moving-coil cartridge and found the two to be totally compatible. The receiver has more than enough gain, so in most cases the volume control can be operated in the lower half of its range even with a low-output moving-coil cartridge. When this is done, lifting the pickup from the record leaves the speakers dead silent, even at close range. However, if one chooses to operate the volume control in the upper half of its range, there may be an audible hum within a couple of feet of the speakers. (In the MM mode, only a hiss will be heard under the same operating conditions.)

The combination of digital and analog tuning displays seems to be in vogue and is not an exclusive Sanyo feature. We find it difficult to understand the rationale for its use. One of the key advantages of a digital frequency display is the elimination of any need for dial linearity or tracking, both of which involve engineering and alignment effort. Sanyo's dial calibration is quite good, and in spite of the 2-MHz intervals between the number markings it is actually accurate enough that a station's operating frequency can usually be identified from the position of the dial "pointer."

In general, the performance of the Sanyo Plus 75 on the test bench was excellent. In all the really important characteristics—those that determine what one will actually hear from the receiver—the Plus 75 is a first-rate performer.

Circle 143 on reader service card

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Phono Cartridge designed for professional use, such as in broadcasting, recording studios, or discos, differs in several ways from a typical hi-fi-system cartridge. Obviously, it must be physically rugged; a delicate, high-compliance stylus is easily damaged even in normal home use, and it could not be expected to survive the nearly continuous use and often rough treatment encountered in professional applications.

One particular difference found in "broadcast" cartridges is the ability of their styli to withstand back cueing, in which the record is rotated manually in the reverse direction in order to place the stylus at the precise point where the playback is to be started at a later time. Most high-fidelity cartridge styli, with their extremely delicate cantilevers, cannot be operated in that manner. In its new SC39 series of cartridges, however, Shure has managed to combine the best of both worlds—the ruggedness and resistance to damage one expects in a professional cartridge and the record-playing qualities of a highly refined audiophile cartridge.

The three models in the SC39 series differ only in their styli (which are easily replaced). The SC39B and SC39EJ use spherical and biradial (elliptical) styli, respectively, and they operate at tracking forces between 1.5 and 3 grams. Their high-frequency response, flat to 15,000 Hz, gradually rolls off above that frequency for better compatibility with the high-frequency pre-emphasis used in FM broadcasting. The top-of-the-line SC39ED has a more compliant stylus assembly rated to track at forces between 0.75 and 1.5 grams. It is fitted with a nude diamond having radii of 0.2 and 0.7 mil, and the frequency response is essentially flat to 20,000 Hz.

The stylus of an SC39 cartridge has a "Side-Guard" feature that protects it against damage caused by being pushed sideways (as when the stylus is bumped against the edge of the record or accidentally scraped across it). It reacts to a side thrust by withdrawing the entire stylus shank and tip into its protective housing before it can bend or break. The integral stylus guard is operated by a small lever protruding from the front of the cartridge. When it is moved to one side, the guard is lowered, and moving the lever to the center line of the cartridge raises the guard to its playing position. A "V" notch in the end of the lever serves as a cueing aid for placing the stylus in a desired groove (the stylus itself is located considerably behind the front edge of the cartridge body and cannot be seen in normal operation).

The diamond stylus tip is finished by a special process claimed to virtually eliminate noise build-up on a disc (including lacquers) even after repeated playings. Suggested price of the Shure SC39ED is $100.

Laboratory Measurements. We tested the Shure SC39ED in a tone arm whose net effective mass was 8 grams. With the 6.3-gram cartridge mass, the combination resonated at 9 Hz. The installation of the SC39 cartridge is simplified by the use of a tapped plate that slides into a slot in the side of the cartridge body and receives the mounting screws. The elimination of small nuts and washers makes the mounting process relatively simple and straightforward. The tracking force was set at 1 gram unless otherwise specified.

Our first step was to determine the optimum load for the cartridge (Shure recommends 47,000 ohms in parallel with 200 to 300 picofarads per channel). Several capacitance values between 200 and 500 picofarads produced relatively minor changes in the response at high frequencies, and a value of 320 picofarads gave the flattest overall response. With the CBS STR 100 test record, this was a very impressive +0.5 dB from 40 to 20,000 Hz on one channel and ±2 dB on the other channel. With the JVC TRS-1007 record, the response was almost perfectly flat to 10,000 Hz, and it rolled off 2 to 3 dB at 20,000 Hz. With the B&K QR-2009 record, the total variation over the middle- and high-frequency range (to 20,000 Hz) was less than 2 dB. In all cases, there was no sign of a high-frequency peak, merely a flat response that rolled off very slightly in the 15,000- to 20,000-Hz frequency range.

(Continued on page 58)
IS THIS THE BEST CARTRIDGE IN THE WORLD?

There are any number of cartridges available today that perform exceedingly well on paper. On the other hand, the Adcom Crosscoil moving coil cartridge was designed to demonstrate its superiority in the only place it really counts, the record groove.

A superiority that becomes immediately apparent the first time you lower the Adcom Crosscoil onto a record and experience its uncanny ability to reproduce every nuance of the original performance with a clarity and subtlety of detail other designs don't begin to approach.

In fact, in a widely publicized challenge to other cartridge manufacturers* the Adcom Crosscoil outperformed the entire field, more than 50 of the world's most highly acclaimed designs.

An impressive achievement? Just ask the also-rans.

No less impressive, however, is the innovative thinking and engineering that went into creating the Adcom Crosscoil. For it was decided that the Crosscoil would be the first cartridge to fully translate the theoretical advantages of the moving coil design into real world performance.

The cartridge takes its name from the unique "X" shaped armature upon which its generating coils are wound. The "X" shape permits many more turns of wire to be wound on each of the cross pieces as compared to conventional moving coil designs. In this way, output is increased significantly, while the overall weight of the cartridge is reduced.

In practice, the Adcom Crosscoil generates enough output to drive a standard phono input without the need of an expensive transformer or pre-pream. Thus, aside from the obvious cost savings, the Crosscoil eliminates a major source of noise and distortion.

Not only does the Adcom Crosscoil provide more output, but its moving mass is extremely low permitting its use in a whole new generation of low mass, high performance tone arms.

Additionally, a newly developed "controlled compliance" cantilever assembly with an optimized stiffness to mass ratio insures that the cartridge/tone arm resonance will fall exactly where it should, above record warp and below audibility.

Finally, the Adcom Crosscoil's specially contoured LineTrace diamond stylus which is grain oriented and nude mounted, provides greater contact area between stylus and record groove minimizing record wear and extending bandwidth to beyond 60kHz while reducing all forms of distortion to insignificant levels.

If you've read this far, it should be apparent that the Adcom Crosscoil is a signal advance in moving coil technology.

We think so. But we want you to make that happy discovery for yourself.

For additional information and an ear opening demonstration, write us for the name of your nearest Adcom Crosscoil dealer.

* A public demonstration at the Consumer Electronics Show in Chicago, June 1979
In the graph at left, the upper curve represents the smoothed, averaged frequency response of the cartridge's right and left channels; the distance (calibrated in decibels) between it and the lower curve represents the separation between the two channels. The inset oscilloscope photo shows the cartridge's response to a recorded 1,000-Hz square wave (see text), which indicates resonances and overall frequency response. At right is the cartridge's response to the intermodulation-distortion (IM) and 10.8-kHz tone-burst test bands of the TTR-102 and TTR-103 test records. These high velocities provide a severe test of a phono cartridge's performance. The intermodulation-distortion (IM) readings for any given cartridge can vary widely, depending on the particular IM test record used. The actual distortion figure measured is not as important as the maximum velocity the cartridge is able to track before a sudden and radical increase in distortion takes place. There are very few commercial phonograph discs that embody musical audio signals with average velocities much higher than about 15 cm/sec.

The channel separation, which was very much a function of the test record used, was in the range of 25 to 30 dB at most mid-frequencies, 20 to 25 dB at 10,000 Hz, and 10 dB at 20,000 Hz.

The square-wave response from the CBS STR 112 test record was excellent, with fairly low-level ringing at approximately 24,000 Hz. The cartridge output was 3.8 millivolts, with a channel imbalance of 0.9 dB (the ratings are 4 millivolts and 2 dB, respectively). The vertical stylus angle was 22 degrees. Tracking distortion was measured with Shure test records. The intermodulation distortion from the TTR-102 record was about 1 per cent up to 23 cm/sec velocity, rising to only 3 per cent at 27 cm/sec. The repetition-rate distortion of the 10.8-kHz tone bursts of the TTR-103 record was almost constant with velocity, measuring under 0.9 per cent up to 24 cm/sec.

Our other high-level test records were tracked easily at 1 gram, including the very low frequencies on the Cook 60 and the 30-cm/sec 1,000-Hz tones on the Fairchild 101. The 300-Hz test section of the German Hi Fi Institute record was playable to between 60 and 70 micrometers. At its maximum rated force of 1.5 grams, the cartridge was able to track the 100-micrometer level of this record (which very few cartridges can do at any force).

**Comment.** Shure's specifications for the SC39 cartridges include a "trackability" rating. This is the maximum velocity that can be tracked at various frequencies at a stated force (1 gram for the SC39ED and 2 grams for the other two models). These figures show that the higher force used with the SC39B and SC39E gives them a very exceptional trackability, while the SC39ED at half that force has substantially lower (but still very good) trackability. In this respect, it would seem to be roughly comparable to some of the better Shure audiophile models. For example, the SC39ED is similar to the M95HE at lower middle frequencies, but it has better trackability at the higher frequencies.

To judge what this means in practical terms, we used Shure's "Audio Obstacle Course" records. Playing the earlier one (ERA III), the SC39ED tracked all parts except the maximum level of the bass drum at 1 gram. There was a rattle on level 5 of the drum, which was cured by increasing the force to 1.5 grams. On the newer ERA IV record, we heard a hardness or strain on level 5 of every section of the record at 1 gram, but at 1.5 grams the SC39ED was able to track every part of this very demanding test record without audible distortion (which would be a rather unusual feat even for a top-quality audiophile cartridge).

We did not subject the SC39ED to deliberate abuse, but, judging from our measurements and listening tests, this is an absolutely first-rate cartridge. It has the essential qualities of Shure's top models (such as the V15 Type IV and the M95HE), including a nearly ruler-flat frequency response, excellent channel separation, excellent tracking ability (especially at 1.5 grams), and the ability to deliver its optimum frequency response with the type of termination it is likely to receive in a typical home music system. If one accepts Shure's claims for stylus ruggedness and the jewel finish that radically reduces record wear, it would seem that the SC39ED offers the best of both worlds—home and professional—at a price which is (by present-day standards) very moderate.

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Circle 144 on reader service card
STUDENT life, harried and peripatetic as it is, needn’t keep one from assembling an impressive audio system. This is ably demonstrated by the installation created by Jeffrey Greenberg of San Diego, Calif. His equipment is housed in three 54 x 24 x 18-inch racks that he constructed in his spare time during a fifteen-week period while he was at Stanford University. They were assembled on his apartment’s living-room floor using only hand tools and an electric drill.

Mr. Greenberg had three requirements for his equipment racks: they had to cost as little as possible, yet appear luxurious; they had to hold a large quantity of equipment of varying sizes; and they had to be easily disassembled for transportation. In the end, each rack cost about $100 in raw materials; the shelf spacings are continuously adjustable, and each unit can be disassembled and collapsed into a package measuring only 48 x 18 x 6 inches. The “luxuriousness” of the appearance is evident from the photo above.

Each rack uses particle board and solid redwood for the shelves, braces, and laminated side panels. The shelves are held by bolts riding in T-slots incorporated into the lamination patterns of the panels. The panels and front edgings are finished in walnut veneer. All other exposed wood surfaces are painted flat black; the doors are smoked Plexiglas. The racks are mounted on casters, and each has six power outlets connected to main power cords. The main rack (shown at right) also contains a silent-running 10-inch fan that draws cool air through ventilation holes at the base and exhausts warm air at the top rear.

Installed inside the main rack are, from the bottom up, a Phase Linear 700B power amplifier, a Marantz 2230 receiver, a Soundcraftsmen RP2212 equalizer, a dbx Model 118 dynamic-range expander, and a home-built LED power-output meter. The rack also has shelf space for Koss Pro/4AA and Sennheiser HD-400 headphones, plus an Audio-Technica AT802 electret condenser microphone. On the top of this rack is a Tascam Model-2A mixer with its MB-20 meter attachment.

The middle rack contains an old Fisher 101-R AM/FM tuner, a Teac AN-180 Dolby noise-reduction unit, a Teac 2300S open-reel tape deck with an RC-120 remote-control unit, and a Teac AX-10 sound-on-sound and stereo-echo unit. A Marantz 5420 cassette deck sits on top. The rack on the left holds 115 7-inch reels of TDK Audia tape and supports a Dual CS721 turntable with a Shure V-15 Type III cartridge.

Using his training in engineering, Mr. Greenberg, who now works for the Convair Division of General Dynamics, also designed and built his own loudspeakers, one of which is visible at the far right. (The speaker cabinets have the same laminated/veneer construction as the racks and use CTS drivers.) He also constructed a switch box to cope with the intricacies of switching between and matching the levels of his Dolby-FM adaptor, Dolby noise reducer, and Teac tape deck.

Mr. Greenberg hopes someday to upgrade his speakers and to add a separate preamplifier, digital tuner, and four-channel tape deck to his system. He already has, however, a special piece of equipment designed to prevent damage and mishandling of his present installation. Hanging above the center rack is a sign, given to him by a friend, that succinctly states: “This equipment is worth more than you are; please don’t touch.”

I s your system an Installation of the Month? To find out whether it is, send a clear snapshot and a brief description of its components to STEREO Review, Dept. I0TM, One Park Ave., New York 10016.
IN the early 1970s the world discovered Bette Midler as a camp heroine who parodied the fleeting nostalgia for Forties musicals. After she had hooked an attentive following with her campy shenanigans, she quickly moved on to demonstrate that she was also a sharp-witted comedienne and a powerful, sensitive singer. Now she has revealed herself as a superb dramatic actress as well in her first movie, The Rose.

I saw it at a press screening recently, and I've been enthusiastically recommending it to friends ever since. Midler's portrayal of the tragic, Janis Joplinesque leading character is not only believable but deeply moving. Hind-sight tells me I should have known that Midler had great acting talent. Her original goal had been a dramatic career, and although she got sidetracked into singing, her vocal de-livery has always retained the essence of the-a-ter. Her performances of songs often seem dredged up from deep inside her, shaped by real emotions and experiences. When she sang Am I Blue on her first album, for example, she made you believe she really was.

There have, of course, been many fine popular singers whose talents led them almost naturally to dramatic roles in Hollywood: Frank Sinatra in From Here to Eternity, Bing Crosby in The Country Girl, and Judy Garland in A Star Is Born. And Fred Astaire's film roles have so closely entwined his prodigious talents that whether you consider him an actor-dancer-singer or a dancer-singer-actor is just a matter of shifting words around hyphens.

Casting Midler in the Janis Joplin role was inspired. There are many similarities between the two women: their professions and vocal talent, their flamboyance, their physical plainness that sometimes blossoms unex-pectedly into beauty, their surface toughness and deep vulnerability. Beyond the obvious parallels, Midler manages to catch the spirit of Joplin's style without resorting to slavish imitation. From the first few moments of The Rose she holds your attention so completely that there is no thought of comparing her with Joplin point for point.

The plot concerns the last days of the Rose, a volatile, self-destructive singer. The picture the movie presents of the relentless machinery behind a rock star's career is gritty and accurate, but how precisely the Rose's story matches Joplin's life is open to question. Midler's own raunchiness and her unique brand of humor come frequently to the surface, and one wonderfully funny scene seems to come from Bette's own past. The Rose pursues a fleeing lover into an all-male bath-house, where she makes wisecracks Midler herself probably picked up at the Continental Baths in New York City where she first performed.

There is none of Midler's usual Forties campiing in the movie's concert scenes, how- ever. These sequences are filled with the low-down, hard-to-be-a-woman blues and rough-house rock that were Joplin's trademarks. Although Midler's vocal tone is smoother, she conveys the essence of Joplin's gut-wrenching twists of phrase and her total absorption in the music. Her performance of Stay with Me, Baby, the Rose's swan song, is a dramatic and musical tour de force.

ON listening to a preliminary copy of the soundtrack album (Atlantic SD 16010), I felt that, as with Streisand's A Star Is Born, the music was a Hollywoodized idea of rock-'n'-roll. Although the songs have drive and intensity, the arrangements are often over-orchestrated. Midler more than holds her own, but sometimes, on Midnight in Mem-phis, for instance, she is up to her navel in instruments.

Since there are relatively few complete musical sequences in the picture, the disc contains some narrative filler. The prelimi-nary version I heard opened and closed with a pathetic snatch of Let Me Call You Sweet-heart, sung hesitantly by the Rose, disori-ented and dazed, as she is dying on stage. The title song, with its pretty but forgettable melody, is the only ballad on the disc.

The album is obviously not a typical Mid- ler record. It lacks her usual variety of material and her sensitivity to current sounds (you'll find all that in her studio album 'Thighs and Whispers,' reviewed on page 85 in this issue). You should not miss her brilli-ant performance in the film, but be prepared for the emotional drubbing that comes with it. The details of the Rose's disintegra-tion are presented so graphically that only the most callous will remain unshaken.
"Popped our ears, rattled objects in the room, and were almost as palpable as audible."

THE WORLD'S MOST RESPECTED LOUDSPEAKER CRITICS TESTED THE FORMIDABLE RTR PS/1:DAC/1 SATELLITE AND SUBWOOFER SPEAKER SYSTEM. STEREO REVIEW SAID IN THE 7/79 ISSUE:

"Its shape is designed to minimize internal resonance modes."
The satellite's pyramidal shape yields more transparent woofer sound, tighter and smoother bass response and an incredibly open sound quality rarely found in other speakers.

"In respect to sonic quality, we have not encountered a better example of such a system than the RTR PS/1:DAC/1."
That says it all! If sonic quality is your goal, audition this incomparable system at your RTR dealer soon. It's priced well below other state-of-the-art contenders.

"System easily met its 16-HZ lower-limit specification."
Compact, efficient and flat from 16Hz to 150Hz, the subwoofer reveals low frequency instruments with a degree of undistorted realism never before heard in a home system. The first subwoofer to combine advantages of both vented and acoustic suspension systems without their shortcomings.

"Our initial reaction to the sound of the system was influenced by its absolutely non-boomy bass."
Stereo Review confirmed the goals set by RTR engineers for their subwoofer: Reproduce all bass exactly as recorded without emphasis or artificial change.

"Almost in a class by itself."
Compare the RTR subwoofer with any other. Its absolute realism, fast response, astonishing delineation and detail are as taut and powerful as a live concert.

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CIRCLE NO. 51 ON READER SERVICE CARD
What's in a name?

Plenty, if the name is Braun. Worldwide, the name Braun is synonymous with museum-quality design and flawless performance. Therefore, it's hardly surprising that when Braun created the first high-performance miniaturized speaker system, it immediately attracted an army of admirers and a host of imitators.

In fact, hardly a week goes by without another "look alike" trying to stake a claim in the market. However, in spite of, or perhaps, because of the sincerity of these flatterers, Braun has gone on to become the standard of reference for miniature loudspeakers.

And for a very simple reason ... they sound better. Nor is this surprising, for Braun literally created, what amounts to, a new speaker technology. And that cannot be imitated.

So, while all the others frantically scramble to catch up, Braun maintains its pre-eminence in the field. It is this leadership based on superior design, performance and technology that tells you better than anything else, what's in a name.

For specifications and the name of your nearest dealer write: Adcom, 11A Jules Lane, New Brunswick, N.J. 08901. Exclusive distributor in the U.S.A. for authentic Braun Audio Products.

Going on Record

By James Goodfriend

YE OLDE AUTHENTICK

NOT all that many years ago, the appearance of a historically authentic performance, either live or recorded, of any pre-1750 music was a decided freak. Those critics who knew anything about the subject were in a continual uproar about the situation. But, with the maturing of a whole new generation of performance-oriented musicologists and of history-oriented performers, the situation changed radically, and we now have more organizations and more records devoted to historically correct performance than we can shake a recorder at. As if to compensate for this tide of the times, many of the critics are starting to swing the other way. They are not espousing anauthentic performance exactly, but they are coming down hard on some performers for a simple lack of musicality, and historical accuracy be damned. It's tempting to go along with them. But, I think, what really has to be done is to re-examine what we mean by "authenticity" and to recognize that everybody who blows a krummhorn or beats a tabor is not necessarily engaged in the search for musical truth.

There are three basic ways, it seems to me, in which things go askew: confused authen-
ticity with historical re-creation, using the same solutions to answer very different problems, and assuming that historical accuracy is enough by itself to produce satisfying performances. Taking them in that order, then, the confusion of musical authenticity with historical re-creation is something to be expected—if deplored—from crusading types in the field. It is all too short a step from considering, for example, how Bach wanted his cantatas to be performed to trying to reproduce the way they were performed. But, as most of us know, Bach was not altogether satisfied with the way his music was performed in his lifetime. He put up with inferior singers, ensembles he felt were too small, and the hundred and one restrictions his employers, both church and court, placed on his musical imagination.

So the exact (to the best of current ability) duplication of such a performance is not necessarily a service to the music. But neither is the opposite: ignoring the performance situation Bach faced and taking the printed score as sole authority. For it would be naïve to think that Bach, a practical composer, wrote exactly what he wanted and simply let his musicians cope with it as best they could. What is needed is investigation into both the score and the performing history to ascertain the truth for each particular work.

And what goes for Bach goes for many of his composers. The question is not whether someone would have used a valve trumpet if it had been invented by then, but what did he want to use that might have been available, and whether he compensated for its absence or simply waited a future possibility.

The matter of using the same solution to answer different problems is also very much with us today, for the discovery or rediscovery of a resource brings with it the temptation to use it to the fullest. But Italian composers did not intend their music to be played with French rhythmic alterations, countertenors did not sing in Lutheran churches in Germany in the eighteenth century. Handel did not write his concertos for a Baroque church organ with pedals, and the consort of viols was an out-of-date performing ensemble even before 1700 rolled around. You wouldn't know it if you listened to old records. But Italian composers did not intend their music to be played with French rhythmic alterations, countertenors did not sing in Lutheran churches in Germany in the eighteenth century. Handel did not write his concertos for a Baroque church organ with pedals, and the consort of viols was an out-of-date performing ensemble even before 1700 rolled around. You wouldn't know it if you listened to old records.

Finally, good musicology does not necessarily make good music. It doesn't make bad music either, but it leaves room for bad music to be made. To play an impossible instrument like the cornett in any way may be an admirable accomplishment, but it is not music unless one can play it in tune, with sensitive dynamics, phrasing, and coloration. And the fact that gut strings go out of tune more quickly than steel strings may be an explanation for the deficiencies of some performances, but it can never be an excuse for them. Such performances, despite all protestations otherwise, can never be called "authentic."

After all, the reason for authenticity is that the music sounds better that way—and if it doesn't, then something is wrong with the authenticity.

Musicality, by itself, is not enough. Musicology, by itself, is not enough. Only when everything has been done, when the full resources of historical knowledge and real musicianship are brought to bear on the score, can we begin to believe in an authentic performance. Authenticity means never hav-

ing to say you're sorry.
Dynamic range limiting during the production of records (and of FM broadcasts) has long been a source of irritation for music lovers. As playback equipment improves, the limitations of most program material become more and more obvious. The vast majority of records are produced with the lowest common denominator in mind—a system that is restricted in its ability to recreate natural dynamic range.

With the introduction of the Dynamic Expander, MXR's Consumer Products Group has achieved its goal of providing a signal expansion technique for all types of music compatible with the finest audiophile equipment available.

Enter the typical dynamic range expander: While dynamics are restored, a series of disturbing side effects becomes apparent. Because typical expanders cannot distinguish scratches, ticks, pops, and rumble from music, these noises trigger the expansion circuitry. More importantly, because most existing expanders have a fixed value release time, they seem to 'pump' with some music, and hiss or 'breathe' with other kinds of music.

In most cases these drawbacks have outweighed the advantages of expansion for the critical listener.

Enter MXR's Dynamic Expander: a linear signal processor with up to 8 dB upward expansion (restoring musical peaks) and as much as 21 dB downward expansion (reducing noise). MXR has solved the problem of 'breathing and pumping' by providing a variable release-time control that tailors the response characteristics of the expander to the program material.

A sophisticated level detection circuit discriminates between music and unwanted information such as rumble and scratches. To monitor gain changes, a unique LED display accurately indicates the expander's effect on the signal whether in or out of the circuit. A level control adjusts the detector's sensitivity to optimize the expansion for varying signal levels, and additional controls provide in/out bypass switching and versatile taping facilities.

The MXR Dynamic Expander preserves the bandwidth, stereo image, and spectral balance of the original signal even after processing. Dynamic range expansion that is musically natural will restore the excitement and nuance that makes live music so emotionally satisfying, and will let you rediscover your cherished recordings.

Harnessing innovative technology and sophisticated production techniques, MXR continues its commitment to the music lover.

The expanding universe of signal-enhancing equipment from MXR's Consumer Products Group gives demanding music listeners maximum performance from their playback systems regardless of room acoustics or program deficiencies. The MXR Compander allows you to maintain the dynamic range of source material through open reel or cassette tape decks. Environmental equalization is easily achieved with your choice of stereo 10 band (full octave), stereo 15 band (two-third octave) or professional one-third octave equalizers all built to the exacting performance specs for which MXR is famous. See your MXR dealer.

MXR Innovations, Inc., 247 N. Goodman Street, Rochester, New York 14607, (716) 442-5320

CIRCLE NO. 47 ON READER SERVICE CARD
The digital part of the audio universe is starting out with a big bang—literally. With their cannons, bass drums, and cymbal crashes, the twelve discs listed below will impress you with the two most audibly apparent advantages of digital recording: wide dynamic range and very low noise. On closer listening, the discs will reveal the other main advantages of the digital process: frequency response that remains flat regardless of overall signal level, no audible wow or flutter, and no tape-modulation noise to cloud complex textures or muddy piano or organ tones. Moreover, these digital showpieces demonstrate two musical advantages lacking in the direct-to-disc format: they can be edited and spliced.

Inside the jackets of these records you’ll find extensive engineering notes describing the how and the why of the digital recording process, just as the literature that accompanied the first stereo records tried to explain their superiority over mono. What the notes fail to point out, however, is that we still have a long way to go before the signal fed to the loudspeaker is equivalent to the one that leaves the master recorder. This will come only with the arrival of all-digital discs, described elsewhere in this issue. Even the dozen discs listed below suffer (though usually to a very minor degree) from one or more of the limitations of the analog format. These include:

- warped or dished pressings
- noise added in plating or pressing
- static electricity and dust
- scratches, usually factory-installed
- suppressed low-bass phase information (to prevent excessive vertical groove excursion)
- limited stereo separation
- inner-groove distortion
- off-center pressings
- pre-echo and post-echo
- limited dynamic range.

Why then, even with this host of potential analog ills, do these first digital blockbusters sound so good? Answer: care in production. Starting at the original recording session and continuing through to the pressing stage, all the discs listed here have received massive doses of tender loving care, at least by present industry standards. Most of the recordings listed have also had the inestimable advantage of being recorded with a simple microphone setup—no more than two to four high-quality microphones placed in good positions relative to the performers and the hall. Concern for quality has also carried over into the production process. The cutting of lacquers, the pressing, and the packaging all indicate the quality levels that analog records can approach (witness the best European or Japanese pressings) but rarely do. Of course, you end up spending more for all this concern and quality.

But, in the final analysis, the records listed below sound good because they have to. The standard tools of the modern producer’s trade—compressors, equalizers, multichannel overdub-
ting, reverberators, and other signal processing—have not been applied to these recordings. Such devices, while they have been exploited creatively in non-classical discs, have usually spelled acoustical disaster for classical recordings. For a variety of reasons—economic, technical, and (I hope) musical—these “aids” are blissfully absent in these digital discs. At its present state of development, digital recording mercilessly exposes sloppy and unmusical production techniques. And it is possible that, as the digital equivalents of equalizers, reverberators, multichannel recorders, and signal processors are developed, future digital releases may one day start sounding as bad as today’s analog recordings.

In the capsule reviews below, it might appear that I am nitpicking when I criticize microphone technique or production problems. I am. But keep in mind that the quality level of all the discs is well above that of almost all analog recordings. Certainly these digital demo discs exhibit an awareness of musical and sonic values far surpassing the Ping-pong, jet-runway, and passing-train records of the early stereo days, and they deserve to be measured against higher standards of recording and pressing quality.

- MOUSSORGSKY: Pictures at an Exhibition (arr. Ravel); A Night on Bald Mountain (arr. Rimsky-Korsakov). Cleveland Orchestra, Lorin Maazel cond. TELARC 10042.


These discs, including the Holst/Han-del/Bach record that started it all, are destined to become audio classics, much like the early stereo Mercury and RCA discs with which they share a simple microphone technique. Each disc has extremely wide dynamic range and frequency response and will therefore test the mettle of the whole playback chain. Certainly the cannon shots of the 1812 Overture will stress your cartridge, tone arm, woofers, and power amp (not to mention your lease). By the way, for all you original-instrument enthusiasts, the cannons used for the recording are “authentic” nineteenth-century artillery pieces.

For me, the great glory of these recordings lies not only in the smooth and clear
digital process, but also in the microphone technique. These discs prove that musically and sonically superior results can be obtained without the time, trouble, and cost of twenty-six microphones and a live mixdown (which made the recent RCA digital recording of the Bartók Concerto for Orchestra unacceptable to these ears).


- GOULD: Latin American Symphonette; Cottilion from Fall River Legend; Festive Music; Philharmonic Waltzes; Quickstep from Symphony on Marching Tunes. London Symphony Orchestra, Morton Gould cond. VARESE/SARABANDE ♫ VCDM 1000.10.

These three recordings were made with a generally conservative multi-mike technique. The “Digital Space” album—which includes the title music from Star Wars—is quite wide in frequency and dynamic range. The recording itself is a bit muddy in the low frequencies, and there is a horrendous digital splice near the end of the first cut, but, in all, the sound is quite appropriate to the repertoire. If only the movies sounded like this!

The second disc is recommended for the variety of orchestral colors it contains. Less recommended are the under-rehearsed performances made necessary by breakneck recording schedules. And, in contrast to some other critics, I find the recording quality of the Ravel less spectacular than a live performance and no better than the best analog recording of the piece (Haitink on Philips 9500 314).

There is a recording of the Latin American Symphonette on Vanguard S-278 that used to be a favorite demo record in the 1960s. While I happen to prefer the orchestral balances and ambiance of the older disc, the new recording far surpasses it in accuracy of frequency response and dynamic range, not to mention lack of tape hiss and surface noise.

- MEL LEWIS; Naturally. Mel Lewis and the Jazz Orchestra. Thad Jones arr. TELARC ♫ DG-10044.

This recording of big-band jazz uses the space-omnidirectional microphone technique as the Telarc classical discs. Except when the extra soloists’ mikes are turned up, the sound is bright and brassy with a good, solid acoustic bass. These mikes, however, are too close and generally turned up too high. Otherwise, an excellent, naturally balanced job, with a sense of space absent from other big-band discs.

- J. S. BACH: Prelude and Fugue in E-flat Major (BWV 552); Fugue in G Minor (BWV 578, “Little”); Chorale, “Jesus bleibet meine Freude,” from Cantata No. 147; Concerto in C Major (BWV 594); Chorale Prelude, “Liebster Jesu, wir sind hier” (BWV 754); Chorale Prelude, “Vor deinen Thron treit ich” (BWV 668). Knud Vad (organ). DENON ♫ OK-7048-ND.

Pipe organs are the non-electronic instruments that generate sounds most like test tones; they are steady in pitch and volume and change timbre only at their onset and decay. They can also generate fundamentals across the entire audible spectrum, making them a good test for any recording medium. Digital recording passes with flying colors here. Although the record is microphoned rather closely, you still get a good sense of a fine Baroque-style organ in a not-too-reverberant church. All this is delivered free of tape wow and flutter and modulation noise. You can even hear the traffic outside on the last band of two.


Pianos have the well-deserved reputation of being the solo instrument most difficult to record. Although a Bosendorfer Imperial Grand piano is not ideally suited to Chopin, the sound of one of these great instruments is well captured on this recording, a disc with very wide dynamic range and flat response in the low frequencies. There’s no trace of modulation noise and, thanks to digital splicing, the piano does not drift slowly out of tune as the side wears on, unlike some direct-to-disc recordings of pianos.


While no one would ordinarily call Schubert’s last symphony a sonic spectacle, it surely sounds like one on this recording. The clearly reproduced middle-distance sound complements the traditional Middle-European approach of the conductor very well. The lack of noise in the quiet passages gives an inkling of what digital discs of less-than-ear-shattering repertoire can sound like. On loudspeakers with a rolled-off treble response these discs will probably sound dull.

THERE are quite a few digital discs which fall just short of the high sonic quality of those mentioned above. With a bit more tolerance for disc noise, a slight adjustment of the tone control or the equalizer, or a little extra patience with misguided production techniques, these discs can also be listened to with great pleasure.

- THE SOUND OF TRUMPETS, Gerald Schwarz (trumpet); New York Trumpet Ensemble; Y Chamber Orchestra, Gerald Schwarz cond. DELOS ♫ DMS 3002.

Containing works by Vivaldi, Biber, Torelli, and Telemann, this disc also includes a knockout performance of an Altenburg concerto for seven trumpets and timpani.


A generally fine job, this recording has the clarity that a multi-mike recording can achieve, but it is compromised by the use of artificial reverberation.

- MAHLER: Symphony No. 4, in G Major. Barbara Hendricks (soprano); Israel Philharmonic Orchestra, Zubin Mehta cond. LONDON ♫ LDR 10004.

This is the best of the first digital discs from London, with an admirably clear presentation of Mahler’s large orchestra. The surfaces on my copy were noisier than on the other records listed.

- MACHO MARCHES. Cleveland Symphonic Winds, Frederick Fennell cond. TELARC ♫ DG-10043.

The sound on this disc is every bit as fine as on the other Telarc discs. The repertoire, though excellently performed, might wear a little thin on repeated hearings, and the digital splices are a bit more obvious than they should be.
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**DIGITAL DECADE:**
**THE AUDIO/DIGITAL FUTURE**

As we enter the 1980s, it is evident that we are in the early days of a new era in audio—and video—recording and reproduction. This decade will undoubtedly see a gradual changeover from today's analog discs and players to tomorrow's digital recording and playback devices. There are enormous technical differences between the analog and the digital recording processes, and once they are understood the benefits of the digital format quickly become clear.

From the very beginning, recordings were made using an analog technique. When Edison first spoke into his new invention, his voice was converted (through a diaphragm attached to a stylus) into a series of hills and valleys engraved on a tinfoil surface. Subsequently, for about fifty years, when sound had to be stored it was likely to be embodied in the grooves of a disc made at first of shellac and later of vinyl. The varying contours of the groove walls were the physical equivalent of the acoustic signal. If, say, a middle-A tone (which corresponds to air vibrating at the rate of 440 times per second) is recorded, the signal consists of a series of undulations cut into the surface of the rotating disc at the rate of 440 per second. In playback another mechanical stylus traces the undulations of the groove, and they are ultimately translated back into an electrical "audio" signal that is analogous to the original acoustic signal.

In short, "analog" means that all the factors that "describe" an acoustic signal (its strength, frequency, polarity, and so forth) will be represented in some physical form in or on the recording medium. Conventional tape recording is also an analog process, of course, with the difference that the audio signal is embodied on the tape as a varying magnetic pattern whose strength, frequency, polarity, etc. are analogs of the audio signal.

How does digital recording differ from analog? Simply explained, the digital recording technique "samples" the audio signal at some precise rate—say, 50,000 times a second—and for each instant of sampling it assigns and records a binary number (in the form of pulses) that indicates the relative amplitude of the signal at that instant. Even the most complex signal can be assigned one number that will totally describe it for an instant in time—if the instant is brief enough. It follows that the more complex the signal, the greater the number of samples (or the faster the sampling rate) that will be required to describe it in digital form.

An inherent difficulty in the digital process is the need for an ultra-wide-band frequency response in the recorder (compared with conventional audio units) to record the digitized signal properly. Depending on the specific digital recording technique employed (there are several), this might demand a response of 5 megahertz or so (for a more detailed explanation, see "Audio's Digital Future," by Robert Berkovitz, in the July 1977 issue of STEREO REVIEW).

Given the fact that conventional audio disc- and tape-recording techniques find it impossible to handle even a 1-megahertz (1 million hertz) signal, one might wonder how it can be worth the trouble and the expense to use, in effect, video tape recorders that will record 5 million hertz to capture a range of audio signals that barely extends to 20,000 hertz. The advantage of processing and storing an audio signal in digital form is that noise, distortion, frequency imbalance, and wow and flutter are excluded from the recording process. And, most significant, the overload limitations of the tape are no longer important—after all, how can you "distort" or overload a series of simple on/off pulses, which is all a binary number consists of?

But all the effort that goes into providing a pure, wide-range signal will go for nought if the consumer's playback software and hardware are not good enough to realize the advantages of the digital processing. (David Ranada touches on this question elsewhere in this issue in his reviews of twelve top digitally recorded analog discs.) Ultimately, of course, it is the all-digital audio disc employing the full capabilities of videodisc technology that will render analog discs and their players obsolete. As early as the April 1974 issue of STEREO REVIEW, I predicted the eventual appearance of a dual-purpose player that could be connected to your TV set and/or audio system to provide a color TV picture or high-quality multichannel sound, depending on what kind of record you put on its turntable. How close are we to realizing that dream?

Steve Traiman, whose job as a journalist involves keeping close track of audio/video/digital developments, provides on the following pages an up-to-the-minute analysis of the competitive goings on in the audio/video arena and some insights into what these pre-market jockeyings will finally produce in the way of buyable hardware and software. If the story he tells seems complex and confused, that's because the situation is!

—Larry Klein, Technical Director
By Steve Traiman

It does not take great powers of technical prophecy or any exceptional marketing insight to suspect that every manufacturer with a video disc or tape product is currently investigating its applicability to the digital audio area as well. A growing number of conventional discs already available have benefited to some degree from the fact that the original tape recording was done in digital form. The big question now is how soon true digital-audio discs and players will appear in the hi-fi marketplace.

It is a pleasure to be able to report that progress in that direction is definitely accelerating, as witness the following facts:

1. Magnavox will go beyond its original two test markets (Atlanta, Georgia, and Portland, Oregon) for the Philips/MCA optical videodisc and expects national distribution by midyear.
2. Commitment has been made by U.S. Pioneer to introduce a joint MCA/Pioneer/IBM player for Philips videodiscs for home use later this year.
3. RCA is expected to introduce its non-optical (that is, stylus-read) videodisc by late 1980.
4. Digital audio and video patents have been exchanged by Sony and Philips.

This is good news for everyone interested in genuinely better-sounding discs and tapes. For about five years, there have been digitally recorded analog discs available on Nippon Columbia's Denon label. Lately, these discs have been joined by a growing number from other producers, both here and abroad, and all of them offer superior performance. Obviously, the digital/analog disc is an interim device, but its recognition and adoption by the major record companies bodes well for an all-digital future. Aside from the RCA and London releases already available, CBS is committed to deliver three to five in early 1980, including some by the New York Philharmonic.

In the pop area, there are digitally taped releases by Ry Cooder on Warner Brothers, by Bonnie Pointer on Motown (with the conventional analog-tape version on the back of a 12-inch single for comparison), and by Giorgio Moroder on Casablanca, to name just a few.

Compatibility of digital audio discs with current videodisc-player designs has already been extensively tested by every major company involved in the development of the new medium, and with the exception of Philips, which has chosen to experiment with a "compact disc" audio system that provides an hour of play on a 4 1/2-inch disc, all the systems offer such compatibility. With the aid of digital-to-analog converter circuits, any of the videodisc machines should be able to provide superior digital audio disc playback. While the only home digital equipment presently available is in the form of such units as Sony's $4,400 PCM-1 converter (it provides audio recording and playback from their videocassette decks), don't throw up your hands just yet. On the consumer level, the price of the electronics needed to convert a digitally encoded disc signal to audio (in other words, a D-to-A converter) will probably be under $200.

Another factor that should help keep prices down is the "forgiving" nature of the digital system insofar as mechanical imperfections in either the record or the turntable are concerned. In a conventional analog disc, problems in the pressing process or defects in the disc material are manifested as noise. In the digital system, only the very grossest of imperfections or damage to the record surface would make any audible difference. Also, the construction of the turntable would not be critical as to speed or noise level. Since only digital information is being picked up from the record, the extraneous effects of wow, flutter, warps, and motor noise are not carried through as signals or signal variations. In addition, the fixed sampling rate either excludes all minor speed variations or can be harnessed to control them.

Here are some recent industry events that may affect how soon you can expect to have the full benefit of true digital recording in your home:

- U.S. Pioneer has demonstrated the industrial version of a player it is building in a joint venture with MCA and IBM in Japan. Compatible with Pioneer's videodisc is a 1/2-hour-per-side digital audio disc having a dynamic range of over 85 dB. The consumer version of the player will be totally compatible with the already available Magnavox-built MCA/Philips videodisc unit, and it will have facilities for connection to a home audio system.
- While a long-playing audio/videodisc has not been a high priority for MCA, they have acknowledged the...
potential of laser-read videodiscs for audio-only use. Such a format could eventually lead to wear-free audio-only laser-read discs with as much as 15 hours of playing time per side; these could also be used commercially as a replacement for Muzak-type services.

RCA acknowledges that the future of digital audio is bright; what was termed "phenomenal" playback from digital dubs of analog master tapes helped convince RCA management that the system's audio potential is as great as that of the videodisc. The first RCA videodisc players, however, may very well not have stereo capability. The company feels that since television transmission is presently in mono, stereo is not necessary at the outset. A compatible audio/videodisc player is therefore unlikely until the machine population reaches a million, probably not before 1982 or 1983 in the U.S.

While most digital audio discs thus far have had 30 to 60 minutes per side, Sony has shown a one-sided 2 1/2-hour disc on a prototype optical videodisc player. With a dynamic range of up to 95 dB, this new disc can be played on Sony's 1-hour-per-side videodisc player and is fully compatible with the Philips/MCA laser technology. Of even greater import to all of us concerned with sound quality is Sony's demonstration of a prototype model of its DAD-X1 digital-disc player, a unit with performance claimed to equal that of digital studio equipment—better than the best analog master tapes can provide today. The Sony disc is scanned by a low-power helium-neon laser that permits unlimited plays without record wear.

Those attending the Berlin Radio-TV Fair last August had a chance to see the latest version of Sony's videodisc system. With the new cross-patent agreement with Philips (announced in October) and Sony's own rapid progress in digital technology, it is likely that the digital audio/videodisc option will be a high priority for Sony's product line once a final decision is made sometime this year.

Digital Recording Systems of Philadelphia, the first "independent" digital-recording service firm, used its Sony equipment for the first digital taping of the Met, at its opening last September, under a contract with the Metropolitan Opera Association. Their initial effort as a back-up system was successful enough to get a commitment for the other three "Live from the Met" telecasts this season. The Met may use the recordings for rebroadcast at such time as the FCC finally approves true stereo television, or for eventual commercial releases once the many problems involving unions and music copyrights are worked out.

Now that Sony and Philips are formally exchanging video and digital-audio patents, the potential for the earlier-mentioned Philips "Compact Disc" is much greater. The unique 4 1/2-inch disc packs a full hour of recording on one side of a record made, like an analog LP, of ordinary polyvinyl chloride (PVC) that is then covered with a metalic layer beneath a protective transparent-plastic coating. The Compact Disc player shown in New York and Los Angeles last spring was no larger than a typical compact cassette deck, and it is seen as ideal for the car-stereo and portable markets. Unfortunately, though both employ laser playback, the system is incompatible with the Philips/MCA optical videodisc system. Philips feels a consumer should not have to purchase a videodisc system for audio-only purposes.

The Compact Disc offers an audio bandwidth of 20 to 20,000 Hz with dynamic range greater than 85 dB; however, even Philips does not expect marketing before 1983 or later, and then only if software support is obtained in the U.S. and elsewhere.

And while these prospects are exciting, there is a rumor that Philips has also developed an audiovisual player offering an optical tape (much like a Magnavox disc) in a compact cassette (to be read by a low-power laser) capable of holding up to 3 hours of video or an amazing 60 hours of digital audio. It may reach the consumer market within three years, but it has so far been shown only in the laboratory.

Matsushita, parent company of Panasonic and Technics in the U.S. and Sony's keenest competitor in Japan, previewed what they called "compatible" digital audio and videodisc players for its original "Vise" system at the Chicago Consumer Electronics Show of 1978. Subsequently, their Technics SH-P1 PCM recording processor was used to capture Marlboro Festival soloists on tapes that were transferred onto the Vise for the Japan Audio Fair.

Since that time, Matsushita has introduced its new "Vise-o-Pac," which virtually doubles the information density of the original system, providing 2-hour videodisc playback (1 hour per side). Encased in a low-cost plastic sleeve, the 9-inch disc is placed on the turntable; the Vise-o-Pac is opened automatically for play and then automatically closed afterward, with the disc never being touched. This Vise-o-Pac concept is, incidentally, fully
Adaptable to Matsushita’s PCM digital audio-disc technology, offering an audio bandwidth of 2 to 20,000 Hz ± 1 dB with more than 85 dB dynamic range.

Adding to its sales potential is the fact that the Visc-o-Pac is technologically compatible in many key parameters with the RCA system (both use a mechanical stylus-in-groove pickup system), and it is known that an exchange of technology between the two manufacturers is a continuing process (RCA is already a major licensee for the Matsushita VHS videocassette recorder). Further, RCA’s expected marketing launch of its videodisc player in this country before the year is out has put more pressure on Matsushita, and with the Sony/Philips audio and videodisc technology “partnership” expected to come up with interchangeable systems, the likelihood of a Matsushita-RCA agreement appears greater.

Another entry in the audio/video sweepstakes is a “hybrid” from Victor of Japan (JVC) with their 1-hour-per-side, 12-inch capacitance-read videodisc (introduced in September 1978). Unlike the grooved versions of both RCA and Matsushita (which, incidentally, owns a major interest in JVC), it has a stylus that is guided electronically over a plastic-coated grooveless disc. The JVC Video High Density/Audio High Density (or VHD/AHD) system also has the disc secured in a plastic sleeve which is inserted into the player and withdrawn (like RCA’s), leaving the disc on the turntable to be played. The sleeve is reinserted and the disc extracted after play. The big advantage of the VHD/AHD is that it offers some of the best features of both the mechanical and optical players. The system interfaces with a PCM decoder for digital audio reproduction as one option, and it also offers random access and remote control, which have up to now been available only with the optical laser-playback systems. However, it is less compatible with the RCA and Visc-o-Pac players, having a 900 rpm speed in the 1-hour-per-side mode compared with 450 for the others.

Mitsubishi is also in the game, having been the first to show PCM technology applied to a laser disc player (a joint project with Teac and Tokyo Denka) at the May 1978 AES Convention in New York. Both the turntable (which uses a different type of focusing laser from that of Philips, MCA, or Sony) and a companion PCM cassette deck were shown at the June 1978 CES in Chicago as well. While the prototype disc player was limited to 30 minutes per side at 1,800 rpm, at subsequent showings of this audio-only system play had been extended to an hour per side at 450 rpm, with frequency response claimed from d.c. (0 Hz) to 20,000 Hz ±0.5 dB and a dynamic range of over 90 dB. Mitsubishi engineers report that a 2 1/2-hour-per-side disc has been tested successfully and that a “long-long” play 7-hour-per-side version is feasible. The laser-disc player is undergoing further development at Mitsubishi’s consumer-products lab in Japan. With their two-channel professional digital master recorder now being offered to interested studios for extensive testing, Mitsubishi’s commitment to a digital audio-disc system that could operate independently of a videodisc is certainly evident.

All that adds up to a half-dozen systems that are among the most prominent contenders in the consumer audio/video disc market of the not-distant future, and all of them differ from each other in greater or lesser degree. If you’re a bit confused, you’re not alone; incompatibility is without question the greatest obstacle to more rapid progress in the marketing of digital audio discs and videodiscs. With the recent disaster of the four-channel misadventure (involving three basically incompatible systems) all too fresh in their minds, major record companies around the world are naturally concerned over the possibility of four or five formats of digital audio discs and the confusion they would create.

At the Midwest Acoustics Conference last May, and again at the Los Angeles AES Convention later that month, a Sony presentation documented the dozen incompatible PCM formats now available, including several within Sony itself. The impressive—if somewhat disconcerting—run-down of the systems underscored the root problem the industry must solve before any true digital-audio discs and players can find their way into our homes.

Progress on standardization has been reported by both the Digital Audio Disc Standardization Council in Japan, which includes twenty-nine Japanese, American, and European firms, and the Videodisc Committee of the Electronics Industries Association of Japan. But part of the problem is that a number of well-respected audio engineers around the world believe that a premature decision on specific standards could stifle development of even better systems, given the relatively early stage of digital-recording experimentation. Another problem is the simple fact that too much intercompany communication might look to government watchdogs like a “conspiracy in restraint of trade.”

What is important is that true digital-audio disc playback has already been demonstrated by most of the available or proposed videodisc systems. And the results are superior even to the best analog discs made from PCM-encoded master tapes. But the digital-audio disc is not likely to be a mass-market commodity until there are, say, a million videodisc players (with audio adapters) in U.S. households or in such other major music markets as Japan, Germany, or England.

Since the first Sony Betamax went on the market in early 1975, it took about 4 1/2 years for half-inch VCRs to reach a million homes in the U.S. Depending on how soon the other announced—and yet to be announced—videodisc systems make it to market, we are unlikely to see a million videodisc households before late 1982 or, more probably, 1983.

In any case, it seems safe to say that the true digital-audio disc will become as common by the end of this new decade as the analog LP is today. And those of us who have heard one can assure you that it offers a new world of audio well worth waiting for.

Steve Traiman is a free-lance writer and the tapeudio/video editor of the weekly music-industry magazine Billboard.
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It was a little over a year ago that I began getting those calls from magazine editors at the rate of about two a month: suddenly they had all decided that rock was dead or dying, and in their scramble to beat each other to the stands with this revelation, they were ringing-up those of us who'd been observing and writing about this mess long enough supposedly to have the answer to the burning question: "Does Rock Have a Future?"

I always answered that I thought that could be subsumed in the larger question of whether anything has a future. It's easy to pick on rock in these days when disco seems to be taking over the world, but look at it this way: do the movies have any kind of future if all we're going to get is seven blockbusters a year we have to stand in line for hours to pay $5 to see? Does anybody who has peeked into some of the galleries in New York's SoHo or even looked at the stuff that gets written up in the art sections of Time and Newsweek see any kind of future for art that would involve its really mattering to anybody? Does literature have a future when most of the population and 99 per cent of high-school and even college graduates these days seem to be functionally illiterate, and those few who aren't are reading Donald Barthelme? And how about TV? Three's Company, anyone?

Right. High and low, classical and pop cultures alike in this society seem to be used up, washed out, scoured of all inspiration. So we begin to sink into decadence, a new Dark Ages may well be upon us, and we can't believe that four thousand years of Western history and civilization have come to this. Yep, rock is dying. In fact, it's already dead. Johnny Rotten was so right: there was no future, and we're living in it. Anything as joyful, spontaneous, and sexy as rock-'n'-roll would of course be utterly anomalous in a society as dead as this. Oh well, as I believe Spengler once observed, you can't win 'em all.

But for every action there's a reaction; every time nature is repressed, it's bound to reassert itself, even if in mutant forms. All Harrisburgs aside, people have been saying Armageddon ever since it was just around the corner since the beginning of time. What it really boils down to is that humans have once again grown weary, dispirited by the collapse of all old values and institutions. But no one's thought of any good new ones yet. By and large we're all just content to let the mechanisms we created (or inherited) take over and whir on while we either lie back and try to lull ourselves into Soma amnesia or board charter buses for Jonestown.

But all that's temporary. I'm always hearing friends in or out of the music scene saying how this or that is dead: jazz, rock, punk, disco, soul music, c-&-w, you name it. It's a parlor game. But then I remember the late Sixties, when even in Down Beat they were saying jazz was on the way out, crushed by the iron hegemony of rock. For me, they were right, because I haven't liked any current jazz since Miles Davis stopped recording. But even somebody as curmudgeonly as myself would have to admit that, in terms of sheer activity, at least, jazz has never been more alive. I hate Stanley Clarke's music, but he is playing jazz, and selling more records than Duke Ellington ever dreamed of doing.

Or how about the last cleavage of decades, for another example. All the pundits predicted that rock would just get more elaborately post-Sgt. Pepper eclectic until it became a sort of new-age bizarro baroque fueled by an ever-mounting stockpile of decibels. Too bad for those soothing-thru; an awful lot of people got sick of both the noisy excesses of acid rock and the formal pretensions of rock's post-Pepper wing. Result: a new heyday for acoustic folkies, or "singer-songwriters" (it had also been predicted that they would never make a comeback after amplified rock soaked some up and steamrollered the rest back in the early Sixties). And, of course, most other kinds of rock just kept choogling along at greater or lesser degrees of popularity. People have been predicting the death of heavy metal for years—mainly critics who've run out of things to say about it and people who never liked it in the first place or have "sung" it—forgetting there's always another generation in need of that sort of club-drubbing on the way up.

These things run in cycles, and frankly I don't think anything ever disappears totally. You get new hybrid strains through an endless process of cross-pollination that goes on whether the more fanatically ardent followers of any given genre like it or not (and generally they don't). I don't like most of the music being made today, but in a way I think the most interesting times are ones like these, when everybody complains that there's nothing happening. What it is is a time of blurry transition, and, since we're so enslaved by the Moment, we can't see the very gradual but ineluctible fertilizations going on right under our noses, fertilizations between waxing and waning forms that will eventually produce the by-products of new forms which we'll probably reject or even refuse to call music because they don't sound like the old forms, exactly.

What nobody seems to remember while waiting for the Next Big Thing which will be so spellbindingly different from everything that went before is that in reality no such thing has ever happened in the history of popular music. Rock-'n'-roll seemed to hit like a meteorite with Elvis in the mid-fifties, but its "arrival" was really just the logical culmination of a gradual process of steadily deepening miscegenation between rural musics of the black and white South. It could be said that all rock really did was move uptown. (Hell, Fats Domino had a hit with The Fat Man in 1949, and if that ain't rock-'n'-roll, nothing is.) So today people are saying rock has had it and disco rules forever, conveniently overlooking the twanging guitars on Donna Summer's "Bad Girls" and the fact that a "punk rock" group named Blondie managed to get a number-one hit with a disco song called Heart of Glass.

Speaking of disco, has anybody noticed that it's made a slight turn back in the direction of humanity lately? Such artists as Claudia Barry, Gloria Gaynor (whose I Will Survive seems like an anthem for the Seventies), Alicia Bridges, and even Donna Summer all owe as much to Sixties Motown vocal stylizations as they do to more recent electronically informed Eurodisco. All this "outer-space" stuff and concurrent synthesizer worship can go...
only so far anyway. As we come closer and closer to real space exploration, Star Wars synthezaps will lose their exoticism, as they have already begun to do through overuse anyway. Also, the more the gulf widens between individuals living in the society, the more they'll tire of cool paean to emotional distance and yearn for closeness with others (or at least a few songs to remind them what it once felt like). Ergo, there will be a full-scale soul-music revival, encompassing white rock as well as disco (and for many of the same reasons) and including a reaction against technological excess plus a resumption of the search for romantic impulses mislaid somewhere down the line.

Punk rock, which is already pulling back from the extremes of its initial resurgence, will eventually find its way back to the roots it shares with all other basic rock forms: the blues. The more it does so, the greater will be its acceptance by the mainstream audience. Similarly, the closer disco comes to closing the circle by returning to its spawning grounds in soul, the greater will be its acceptance by hard-core rock fans.

Speaking in terms of the inevitable human reaction to cybernetic music, I would also look for a resurgence of a cappella singing and even doo-wop when the voice-as-instrument makes a strong comeback. The possibilities of extended a cappella have never really been explored in rock owing to the last couple of decades' infatuation with electronic instruments. A backlash is probably just around the corner; part of it will involve a return to doo-wop in its classic form, and one can only hope that when this happens black groups like the Persuasions, who have helped keep the tradition alive for a decade and a half, will finally get the recognition they've deserved.

In white rock, vocals have almost always been thought of in conjunction with amplified electric instruments, which of course is ridiculously shortsighted. Who knows but that the energy crisis itself might dictate new experiments in a cappella singing that would not necessarily be strictly blues or gospel based? Certainly a cappella albums would seem to be cheaper to make, and when you consider the textural and harmonic possibilities of multiple vocal overdubs or whole rock choirs in sixteen- and twenty-four-track studios, plus the money saved by not having to tote tons of equipment around on tour, an a cappella renaissance begins to look like a veritable fait accompli. Take Crosby, Stills, Nash, and Young, multiply their harmonies by four or even...
six, and you begin to get an idea how big a sound, in both the literal and commercial senses, this could be.

Meanwhile, there should also be a closer merging of avant-garde electronic "classical" forms and rock. Kraftwerk and disco producers all over the map have already demonstrated the commercial viability of such fusions, but they have really only scratched the surface. I attended a series of "New Music" concerts and conferences in New York City recently that showed, among other things, just how hungry a great many avant-garde composers are for the big bucks and mass recognition if only they can tap the rock audience. Like jazz musicians before them, "serious" composers (such as Phillip Glass) are beginning to sniff the commercial viability of ambient recordings. As people feel the Sounds of waves rolling in on the seashore or birds chirping in the trees are selling like crazy. Eno himself has remarked with some surprise that his ambient records are actually outselling his song discs. In reality, we're rapidly reaching a point where, in the broadest sense, the two are interchangeable. The average housewife or office worker doesn't know or care about John Cage's dictum that everything in our environment could and should be perceived in musical terms, but the idea has penetrated nonetheless. As people feel more unnerved and threatened by the external world around them, the aural Valium of ambient recordings will eventually supplant Muzak altogether. In fact, disco DJs (in New York City, at least), with experience in bringing whole rooms full of people up and down again and again nightly, have been fantasizing about the political possibility of sonic/rhythmic crowd control for at least three years now. We'll see how far they get.

Jazz has already become an ambient music of sorts, listeners everywhere having discovered that it's not an arcane musical form requiring trained ears and specialized knowledge to appreciate, but actually the diatematic opposite, something that you can play all day and tune into or out of at will, a pleasant background for whatever you're doing. The next big move will probably be to bring jazz to the foreground again, just to stir up some controversy, by fusing punk rock with mid-Sixties free jazz. It's already happening with groups like the Contortions, Pere Ubu, and Richard Hell and the Voidoids. It makes sense because both musics have to do with noise, aggression, distortion, atonality, and random factors. Punk would provide a backbeat (or, as in the case of many groups in the genre, a foreground) which would give the listener something to hold onto while the jazz soloist—on sax, guitar, or whatever—takes off into outer space.

As rock has moved from being the rebellious sound of a counterculture to that of mainstream America, and as the mean age of its listenership has gone up, the predominant sound has gotten tamer. Housewives now leave the rock-'n'-roll station on while they do dishes. That's ambient, and so is disco. Meanwhile, "environment" records featuring the sounds of waves rolling in on the seashore or birds chirping in the trees are selling like crazy. Eno himself has remarked with some surprise that his ambient records are actually outselling his song discs. In reality, we're rapidly reaching a point where, in the broadest sense, the two are interchangeable. The average housewife or office worker doesn't know or care about John Cage's dictum that everything in our environment could and should be perceived in musical terms, but the idea has penetrated nonetheless. As people feel more unnerved and threatened by the external world around them, the aural Valium of ambient recordings will eventually supplant Muzak altogether. In fact, disco DJs (in New York City, at least), with experience in bringing whole rooms full of people up and down again and again nightly, have been fantasizing about the political possibility of sonic/rhythmic crowd control for at least three years now. We'll see how far they get.

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In fact, I can see an eventual merging of punk not only with jazz but with heavy metal as well. A lot of people think that all punk amounted to in the first place was heavy metal sped up and lightened a bit on the bass lines. While I don't think that's strictly true, I can see how a case could be made for it. Such watershed punk groups of the late Sixties as the Stooges and MC5 have turned up in plenty of metal surveys, and the two genres share an obsession with fuzztone and musical primitivism. What's certain is that at the dawn of the Eighties heavy metal is something of an anachronism—"dinosaur" music—even though a new generation has embraced Van Halen with as much enthusiasm as their older brothers and sisters embraced Grand Funk and Black Sabbath. Still, there is no getting around the fact that heavy metal hit its peak around 1972, and most if not all of the current practitioners are playing tired old formulas. The kids are wising up to it too, which is why so many of the recent metal entries, such as Angel and Starz, never quite caught on in the way they were supposed to.

Punk, meanwhile, is finally spreading to the heartland. Most large urban areas in Middle America have at least one club and a little scene of some kind, and it seems a safe prediction that the traditional spawning ground of metal bands, the garages of America, will soon be giving us a new mutant, probably mixing punk's amphetamine energy with metal's brawn.
It was inevitable. When tape technology leaps forward as far as it has with the advent of Scotch Metafine, it's bound to cause considerable change.

Scotch Metafine is the world's first metal particle tape. Output is 2½ times greater than chrome at low frequencies. Three times greater at high frequencies, a 10dB improvement over today's standard chrome tapes. When you're dealing with a tape that has this kind of magnetic density and output potential, ordinary decks can't handle it. To record, you need a head that JVC KD-AB can handle twice the current demanded by today's oxide tapes. And these sophisticated decks are here now. Including leaders like JVC and Aiwa. Depending upon the deck, Metafine can extend recording frequency response from today's 30-16,000 Hz ranges to (you won't believe it until you hear it) 20-20,000 Hz!

Scotch Metafine tape has brought cassette recording almost to the limits of the audible range. It has created a new cassette recording system that can truly match the rest of your components in audio performance potential. It is, in the full sense of the word, a breakthrough.
"The main thing to be said about pop music is that basically it never seems to change that much."

But what of the other "superband" genre of the Seventies: the Emerson, Lake and Palmers, the Yesses, the Queens? It's hard to see much future for them, since the last really big entry in this category was probably Kansas, who made their debut in 1974. Those arriving since then just haven't quite caught on. What I see happening here is that their arty propensities will be rendered old hat by the new breed of art-school bands: Devo, Talking Heads, and the B-52's. Where the Queens and ELPS sought to combine rock with "classical" elements to achieve a kind of kitschy majesty, these new groups have managed to rope together elements of rock, folk, jazz, and even funk for a sound that comes closer than anything else out today to being, well, unprecedented. A lot of people don't much like them yet, but on the whole so far they've done a lot better than the punk bands; initial sales on Devo and Talking Heads suggest it's just a matter of getting used to something new.

The qualities that set them apart from the punk bands and give them something in common with earlier (and admittedly very different) groups like Yes and Jethro Tull are eclecticism and snob appeal. To like Devo is sort of to be "in" on a big new secret, just as pretending to understand Ian Anderson's lyrics once was. This is a market that can only expand as the audience becomes more aware of it, and companies like Warner Brothers are pushing forward. These groups also fit in with the aforementioned incursion of avant-garde electronic elements into mainstream rock.

When rustics in the sticks start pushing Devo to platinum status and ordering their shiny new synthesizers from the Sears catalog, what of country-and-western music? Well, c- & -w has always thrived on naivete, a sensitivity to the mores of downhome America, and good old-fashioned Old Testament guilt. The problems for c- & -w in adapting to the cybernetic society of the future (it will eventually spread even to the prairies) are obvious. As if that wasn't enough, the Nashville music machine and a bunch of hippie poseurs who call themselves the Outlaws (you know, good ole Waylon, Willie, and the like) have for several years now been doing their damnedest to kill country anyway. In New York City, country- clubs like the Lone Star and O'Leary's are packing 'em in these days, and I confidently predict that we will see the day when traditional c- & -w will be entirely appropriated by jaded urbanites who will consider it the quaint last word in avant-garde camp-kitsch American. They'll be purveying it in a totally slick, bastardized form, of course, but how else have we been getting it in the last few years anyway? I mean, you show me the new Roy Acuff.

Having mentioned the Outlaws, it seems only proper to move on to the singer-songwriters, which in reality is what people like Willie Nelson are even if he no longer writes. In fact, no longer writing would seem to place him slap in the middle of the s-sers, because, like heavy metals, they too peaked around 1972. On their rare new albums these days they don't seem to be coming up with much beyond a few old standby Angst-vapors warmed over and restirred. I except, of course, a few eccentrics such as Neil Young and Randy Newman, who have always gone their own way and will no doubt continue to do so for decades. I'm talking about, for instance, Carole King, whose new album jacket depicts her in—surprise!—denim coveralls and informs us that among several other original new works we can hear something titled Good Mountain People. The outpourings of Carole, Carly Simon, and James Taylor (how many more can you name currently putting out records that sell?) somehow seem less applicable to present-day needs and neuroses than those of the heavy-metal bullies. Paul Simon, where are you? (Probably writing TV commercials or film scores.)

Which brings us, finally, to Pop, which is of course what most of the singer-songwriters used to be good at. The main thing to be said about pop music is that basically it never seems to change that much. Musical styles and technologies may come and go, but your basic love song is still about spooning under the moon in June. Just ask the Bee Gees. The difference, as I see it, is that love itself seems to be finally (or temporarily) going out of date, either that or turning inward. What we are experiencing in the current culture of narcissism (and can expect much more of through the Eighties) is not the love song that says "I love you because you are like this and thus and so," but the one that says "I love me because I'm like this and so, and I don't know who in the hell you might be, but I'm goofy and blessed with such a perfect bod I don't even give a damn!" This will probably reach its apogee when Elvis Costello enters his "mellow" phase (watch for it; it's definitely part of The Plan), in which he stops telling us how uncool we all are and lets us all in on what a swell fellow he really is.

You may have noticed that so far I have omitted one seemingly all-important group of musical artists. I'm talking, of course, about the Superstars—the Paul McCartneys, Stevie Wonders, John Denver's, Rolling Stones, Linda Ronstadts, and the like. I have omitted them because they belong neither to the future nor to the past. They will be around forever, dishing up the same stuff we've learned to expect from them at the usual rate of about an album a year. Oh, they'll keep getting a little duller and flatter, a little older and creakier each time out. Will we particularly notice or mind? Nah. Why? Because we'll all be doing the same thing.
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The speaker frames shown are die cast rather than stamped. That's so they won't twist and alter the voice coil alignment during assembly and use.

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CHARLIE DANIELS was so excited he could hardly contain himself. After three years of defeat at the Country Music Association awards ceremony, he and his band raked in enough honors this past October to make up for all the other slights put together—Instrumentalist of the Year (for Daniels' own guitar and fiddle work), Instrumental Group of the Year, and Single of the Year (for 'The Devil Went Down to Georgia'). The third time he was called onstage to accept an award, Daniels had to admit that he was "slap out" of anything to say. Afterwards, however, he managed to put his excitement into words. Was he happy, someone asked? How did he feel? "I feel like I'm seven years old and Santa Claus just brought me the Lone Ranger for Christmas," drawled Daniels, forty-three, who somehow even looked like a kid when he said it, despite his imposing height and girth—260 pounds of saddle-tramp cowboy slung on a 6' 2 1/2" frame.

The irony of all this is that, as elated as Daniels is about winning Nashville's approval, he doesn't consider his music "country" at all. And while one faction of fans calls him the premier practitioner of a genre of music known as Southern rock, Daniels wants no labels whatsoever placed on his work.

"Labels are restricting," he says, sitting spraddle-legged on a turned-around chair in a Holiday Inn in Lexington, Kentucky. "I don't see why everything has to be pigeonholed, categorized, and computerized. I don't think about what kind of music we play. I think about what quality of music we play. Our music has definitely got some country influence on it, but it's definitely not what's known as traditional country music. We just play the music and let other people put titles on it. Some reviewer from up the way called it 'Southern twang, Northern bang, and city gang.' I thought that was pretty apt. But if people want to call me a hillbilly, hell, that's all right. If they want to call me a rock-'n'-roller, I don't care about that, either. It doesn't make no difference."

Daniels' music, sometimes called "country-oriented pop/rock," has always been hard to describe. There seems to be a little bit of everything in it, from the progressive-country Long Haired Country Boy, to the swing-tinged South's Gonna Do It, to the Spanish-styled Caballo Diablo. But there are other sides to Daniels' music, too. His background as a fiddler and bluegrass musician showed up early in his career in the choice of Orange Blossom Special, one of his few unoriginal tunes, but one which nonetheless performs in an original way. His melodic, or romantic, bent comes out in tunes such as Mississippi and Heaven Can Be Anywhere. And Saddie Tramp, Jitterbug, and Rainbow Ride reflect his interest in jazz. But certainly the rock and boogie influence is there, most recently in Passing Lane, as is the pop and easy-listening flavor seen in Daniels' approach to Reflections, a tribute to Elvis Presley, Janis Joplin, and his good friend Ronnie Van Zant of the ill-fated Lynyrd Skynyrd group.

Not apparent in the choice of Daniels' AM radio hits, perhaps, is the fact that much of the CDB music is highly complex and intricate, with several musical forms weaving in and out of each other in the course of a single tune, the band—"Taz" DiGregorio on keyboards and supporting vocals, Tom Crain's guitar and vocals, Charlie Hayward on bass, and Fred Edwards and Jim Marshall on drums—trading off styles as easily as they do solos. Although that's been happening all along in Daniels' music ("Saddie Tramp," from 1976, starts of progressice country before sidewarding off into jazz), it's especially true of Daniels' last album, "Million Mile Reflections," which, on the whole, avoids the hard edges found in his earlier music in a try for a softer, crossover appeal.

How fitting, then, that "Million Mile Reflections" was recorded in Nashville, and not in Macon, Georgia, where most of the previous CDB albums were cut at Capricorn Studios, home of the biggest names in Southern rock. To the surprise of some of Daniels' grittier fans, he and his new producer, John Boylan (whose credits include albums by Boston, the Little River Band, and Michael Murphey), sweetened the overall sound with the addition of strings, horns, and female background singers. But the treatment appears to have worked, at least commercially. The album has gone platinum, selling in excess of one million units, and the single The Devil Went Down to Georgia went gold.

"I like a lot of different kinds of stuff," says Daniels, a chewing-tobacco addict who pauses only long enough to spit a long stream of brown juice into a plastic cup. "My record collection runs from Earl Scruggs to Itzhak Perlman, and I like to listen to all of 'em in the different moods I'm in. I don't like to be restricted in what I listen to, and I don't like to be restricted in what I play. If I said we were a country band, we'd have to play country music all the time, and I don't want to play country music all the time. I don't want to play rock-'n'-roll music all the time, either. I want to play what I want to play, and what I feel like I do best."

Daniels, born the son of a lumberjack in Wilmington, North Carolina, didn't take up music until he was fifteen, and cutting off the top of his fourth right-hand finger on a ripsaw didn't slow him down. The guitar—or "git-tar," as he calls it—came first, with the influence of Elvis Presley and the tunes he heard on black station WLAC. A year and a half later, Daniels turned the dial to WSM and Bill Monroe, and then made the easy transition to fiddle. "I like to run my parents crazy when I first started playin' fiddle," he recalls. "One of the guys I went to school with said it sounded like somebody stepped on a cat every time I started playin'.

But Daniels improved steadily, and by the time he was twenty-one he and his club band, the Jaguars, started out on the road playing "every honky-tonk between Raleigh and Texas, or at least quite a few of 'em." In Ft. Worth, about 1959, Daniels met Bob Johnston, one of the people he credits most with shaping his career. The two wrote a song together, It Hurts Me, that Elvis Presley was to put on the B-side of...
"My record collection runs from Earl Scruggs to Itzhak Perlman, and I like to listen to all of 'em in the different moods I'm in."
to what I did best, to play what we wanted to play the way we wanted to play it, and to play for live audiences, which is what I prefer to do.” While still playing sessions in Nashville, Daniels and Taz DiGregorio had commuted to Kentucky to play in little clubs and feel the excitement of working live crowds. The bookings were not exactly big-time.

Those days are over, and today Daniels is playing places a little bit fancier, such as the East Room of the White House, where on one occasion he sang Long Haired Country Boy (with the lines “I get stoned in the morning/I get drunk in the afternoon”) for President Carter, who claims to be a CDB fan from way back. But Carter would have to be classified as an atypical admirer of Daniels and his music.

“Our fans are the pretty usual concert crowd,” says Daniels. “We appeal to a large part to working people, just plain ol’ street people and country folks, and the flat-tops and long-hairs, too. Just all kinds of people. Our music crosses a lot of lines. I don’t think the intellectual community thinks too much of us, though. Our lyrics and music either go over or under their heads. I don’t think they can grasp the simplicity of it. I’ve had reviews that said my lyrics were too simple, or my music is too simple. I don’t understand that. I think music should be something everybody can understand and enjoy.

Evidently Daniels is understood by a good number of people. For the last five years he’s been throwing a big bash each January that he calls Volunteer Jam, a huge, impromptu concert that has never failed to fill whatever hall he books in or around Nashville. Daniels considers the Jams to be “Christmas, New Year’s, family reunion, and everybody’s birthday rolled into one,” and the sixth is planned for this month at Nashville’s Municipal Auditorium.

A lot of other bands show up each year for the Jam—bands such as Grinderswitch, the Winters Brothers, and Wet Willie. Along with the Marshall Tucker Band, the Outlaws, Sea Level, Molly Hatchet, the Allman Brothers, Lynyrd Skynyrd, and Elvin Bishop, they are generally referred to as “Southern rock groups.” A tendency among many music critics is to lump them all together not only by region but also by sound, the common complaint being that only a few of the Southern rock bands have a sound that sets them apart from the rest. Predictably, Daniels, who has been called the “countryist” and therefore the “purest” of the Southern rockers, thinks that’s a lot of bunk.

“I’ve never really seen Southern music as a separate genre,” he says. “I’ve always just seen it as a bunch of bands from the same locale playin’ their own particular kinds of music. There’s a common thread that runs through it all—simplicity of lyrics and preoccupation with quality—but I don’t see any of the bands really soundin’ alike.”

Does he have a theory as to why the Southern bands are now enjoying unprecedented popularity after decades of national prejudice against the South and everything in it? Could it have anything to do with a Southern President’s living in the White House?

Daniels reaches for the plastic cup and smiles a Tennessee grin. “I don’t think so,” he says. “He ain’t passed no laws concernin’ music. But if you want to get philosophical about it, I think people are keen on changing, getting back to simpler things in life. And our music represents wide-open spaces and a free-wheelin’ attitude. Maybe the people who don’t get a chance to live like that a whole lot—especially the people in big cities like Chicago and New York—can live that kind of life vicariously, for a few minutes anyway, by comin’ to one of our concerts.”
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BEST OF THE MONTH

Bette Midler’s Wonderful “Thighs and Whispers”

Probably the only thing hotter than Bette Midler at the moment—and surely for quite a while in the foreseeable future—is that English muffin one of the crew was preparing the night the alarm bell rang at Three Mile Island. Certainly she sports an ineffable new aura as an Authentic Movie Superstar in her bravura dramatic performance as the gross, childishy sweet, incredibly screwed-up heroine of her just-released movie The Rose. And “Thighs and Whispers,” her wonderful new Atlantic album, just as certainly shows that she hasn’t forgotten any of her old tricks. Speaking as one of her old tricks, which is to say one of her admirers, I’m happy to report that she’s up to, and down to, of the same ribald, hilarious, poignant kinds of carrying-on that made her a most unlikely cabaret star in the first place.

Even though the “bigger-than-Streisand, bigger-than-Streisand” buzz has now begun to sound like a roar, and even though her work in The Rose has revealed a volcanic dramatic actress fully able to keep an audience spellbound without singing a note, it’s nice to know that she hasn’t turned her back on all of us who treasured her back then as the most inventive, intelligent lampooniste of her generation. Far from having Gone Grand, Miss M. is gaudier than ever. Take, for instance, the album cover. You haven’t seen such a tangle of golden hair, expanse of tawny skin, smolder of amber eyes, and slather of hot-pink lip-gloss since Marilyn Monroe sashayed out to have her ... um ... picture taken.

As for the repertoire—well, how does a little something like My Knight in Black Leather cuff you? It is one of those dizzy Midler spoofs of uptown lifestyles in which the dippy, woebegone heroine confesses that Oh, God, she just gets so turned on by this dude with the masterful touch. Porn? No. Just good, dirty, non-serious fun. Then there’s Hurricane, a genuine plastic lei if ever there was one; who else, in this year of 1980, could possibly get away with such lines as “You’re a hurricane/You blow me awayayay ...” strung out against a chorus huffing and puffing asthmatically in the background? And Married Men, in which Miss M., sounding like the activities director in a coed bath house, wags an admonitory finger at her listeners as she tells them (“Now, girls!”) how two-faced married men can be, the chorus undulating through several repetitions of “They do it/They do it/They do it” the whole time.

Not that she doesn’t do some very fine straight-out singing here too, particularly in the disco-slanted Hang On In There Baby and the soul-brushed Cradle Days. The Midler voice is like the Midler figure—pint-size—and it is not nearly as vividly colored as she herself is. But it is enormously expressive and musical. Moreover, she is a natural, instinctive editor, and any Midler reading of a lyric can be depended on to emphasize just the word or phrase that nails the meaning down absolutely.

It all comes gloriously together here on the Big Noise from Winnetka (would I kid you?) track. In seven minutes Midler dismantles that old pop classic before your ears, puts it back together again in an arrangement by Arif Mardin, building a Performance that will have you chuckling with pleasure by the time it finally careens to a stop. It is a superb job and alone worth the price of the album.

I came late to an appreciation of the particular kind of magic Bette Midler can lend to a song, put off at first by her Kween of Kamp image and what I thought was a contrived, patronizing kind of outrageousness. Now that I know her work better I realize that the outrageousness is quite real, that it has its origin in and is designed to protect a vulnerability that is just as real. And it is that vulnerability, I think, that accounts for her unique appeal, because it is never consciously displayed, never capitalized on (as it surely was with, say, Judy Garland), but only suggested. It lends a touching truth to almost everything she sings, no matter how raunchy, how gamey, how impertinent.

Even if she had never gotten beyond the kind of material she does here (and she does it close to perfection) on “Thighs and Whispers,” Bette Midler would deserve to be an important star. As it stands now, with The Rose securely tucked under her belt, she looks like serious competition for the reigning actress-singer of our era, a lady whose stainless-steel ways are beginning to pall. Was it Mary McCarthy who compared life to a roller towel, with all our successors wound up inside, just a short pull away? —Peter Reilly

BETTE MIDLER: Thighs and Whispers.
Bette Midler (vocals); orchestra. Big Noise from Winnetka; Millworker; Cradle Days; My Knight in Black Leather; Hang On In There Baby; Hurricane; Rain; Married Men. ATLANTIC SD 16004 $8.98, @ TP 16004 $8.98, © CS 16004 $8.98.

JANUARY 1980

Continued overleaf
One of the Great Operas of the Century: Paul Hindemith's 
*Mathis der Maler*

I know of no composer of this century whose name so gets in the way of his music as Paul Hindemith's does. Somehow, we forget about Hindemith the consummate musician, the inspiring conductor, the great violist, the daring and at times even mystical composer, and instead think only of yards and yards of dissonant counterpoint, sixty-three sonatas for everything and piano, *Gebrauchsmusik* for beginning violists in the first position, and the hundreds of students of composition who came out as little Hindemiths. It's all true, of course (Hindemith embraced multitudes), but it's unfair that one side of the man so blots out the other. For, amid the ephemera, the teaching pieces, and the demonstrations of pure craft, Hindemith composed masterpieces—and one of them is called *Mathis der Maler*.

The three-movement "symphony" that Hindemith extracted from his 1938 opera has often been recorded, but the whole of *Mathis der Maler* is hardly known. There was a short-lived Deutsche Grammophon recording of excerpts from it, but a new recording on the Angel label is the first of the century. No apologies need be made for it whatever. It has action, contemplation, real characters, lyricism, choral episodes, rhythm, harmonic and coloristic interest, tension and relaxation, and some splendid major roles. It is a man's opera primarily—but, then, so is Boris Godunov. It is set in Germany at the time of the Peasants' War (1524-1525) and is based on the life of the great painter Matthias Grünewald (creator of the famed Isenheim altarpiece). It takes its external action from the war, from the opposition of Catholics and Lutherans, and from the rather strange love relationships, and its primary internal action from Mathis' search for where his duty lies. *Mathis* is among the most philosophically questing of operas, but it works because its questions and answers are played out before our eyes and ears. It is a brilliant libretto (by the composer himself), and, with its folk songs, chorales, chants, and great lyrical lines, it is a brilliant opera as well.

In the title role, Dietrich Fischer-Dieskau satisfies every requirement. He was only thirteen years old when the opera received its first performance, but it might have been written for him, so perfectly does he fit its measurements. As Cardinal Albrecht of Brandenburg, James King gives us one of his finest accomplishments on records. The supporting roles, both male and female, are equally well handled, and the casting intelligently takes into account the necessity of differentiating voices of similar range (there are no less than five tenor parts). Conductor Rafael Kubelik holds the whole thing together brilliantly and brings forth excellent choral and orchestral work.

The recording is technically well managed (with some extra depth in four-channel playback), and a full libretto with a superb translation by Bernard Jacobson is supplied, together with notes by Hindemith and others. In fact, the only thing lacking in this presentation—and how odd it is that it should be lacking—is some visual representation of the paintings of Matthias Grünewald, whose masterpieces inspired this musical masterpiece.

—James Goodfriend

**HINDEMITH: Mathis der Maler.** Dietrich Fischer-Dieskau (baritone), Mathis; James King (tenor), Albrecht von Brandenburg; Gerd Feldhoff (baritone), Lorenz von Pommersfelden; Manfred Schmidt (tenor), Wolfgang Capito; Peter Meven (bass), Riedinger; William Cochran (tenor), Hans Schwarz; Alexander Malta (bass), Truchsess von Waldburg; Donald Grobe (tenor), Sylvester von Schauberg; Rose Wagemann (soprano), Ursula; Urszula Koszut (soprano), Regina; Trudeliese Schmidt (mezzo-soprano), Gräfin Helfenstein; Karl Kreile (tenor), the Count's Piper. Bavarian Radio Chorus; Bavarian Radio Symphony Orchestra, Rafael Kubelik cond. ANGEL □ SZCX-3869 three discs $27.94.

Egberto Gismonti's 
New "Solo": Another Extraordinary Fusion of Musical Influences

"I thought about writing a note in order to introduce this album," writes Egberto Gismonti in the jacket copy for his new "Solo." "The ideas' flow was wide, full of delicate meanings, and I realized, at a certain point, that literary language was very limited to express feelings, specially those we live during creative moments." I know exactly what he means, especially after

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Cabinet is walnut veneer.
hearing the flow of ideas expressed by him musically on this, his third release on the ECM label. If you thought I raved about the two previous Gismonti albums—and I did—you can just about double anything I said before and apply it to this extraordinary solo venture.

Born in Brazil in 1947, Gismonti began studying classical piano at the age of six and became a student of Nadia Boulanger and Jean Baraque in Paris when he was fifteen. On his return to Brazil, he began to explore the music of his native country, principally by means of the guitar, an instrument that impressed him as much when it was in the hands of Django Reinhardt and Jimi Hendrix as it did when played by virtuosos in the classical field. To Gismonti it was all an equally valid form of expression, so he opened his mind to inspiration from all directions. Eclecticism therefore pervades his music, which is a wonderful fusion of influences, not the contrived mix that dominates the "jazz" charts these days, but a blend as natural and inevitable as milk and honey.

As the title implies, Gismonti's new album features him alone, but this is not one of those one-man-band outings on which an artist toots and bangs through song after song to create whole sides that sound like just that. Gismonti generally devotes himself to one instrument at a time. and if his brilliant guitar passages sound like they must be overdubs—and they do tend to—it is only because he is a musician of impressive skill. "Solo" is the perfect album, a rich six-course meal prepared to perfection from beginning to end. Gismonti combines his considerable technical skill with a musical intellect, soul, and sensitivity that overwhelm mere idiosyncratic preferences and reach straight for that indefinable something that compels us first to pay attention and then to stay around for more. Gismonti communicates. —Chris Albertson

ECBECITO GISMONTI: Solo. Egberto Gismonti (piano, guitar, surdo, cooking bells, vocals). Selva Amazonica; Pau Roloe; Zero; Frevo; Salvador; Ciranda Nordestina. ECM ECM-1-1136 $8.98. © M5E-I 136 $8 98.

Joe Jackson's "I'm the Man": Making the World Safe for Punk

THAT both Joe Jackson's debut album, "Look Sharp!", and its sublime single, Is She Really Going Out with Him?, made substantial chart inroads and even garnered AM (!) airplay (something few New Wave acts have been able to do except for Blondie, who cheated by going disco) should have come as no surprise to anyone. It was only a matter of time before a vaguely punk attack on those bastions of conservatism was mounted by someone whose roots run a little deeper than those belonging to someone who first picked up a guitar in 1977. That Joe got there ahead of the pack only proved he understood the larger (read: American) audience better than his otherwise accessible colleagues did—such as Nick Lowe, Elvis C., or the Boomtown Rats, all of whom will ultimately profit from Joe's commercial groundbreaking anyway.

Still, though everyone seemed to tumble immediately to the fact that the kid really had it, there was something of a critical backlash. He's a lightweight, and a conservative lightweight at that, people groused—anti-Clash, if the truth be known. There's some little validity to the complaint, but mostly it's unfair. Nobody ever knocked Blondie for being apolitical or overly pop-ish, and to criticize Joe on those grounds is simply churlish.

Those who do will probably be unmoved, then, by the very real pleasures of Joe's new "I'm the Man," and they'll be the poorer for it: it's a superb album. Sure, Joe has a wonderful ear for the hook, and he isn't above singing love songs. But he's also as sharp-eyed (look sharp!) a social critic as any of his more activist contemporaries; he just doesn't make such a big deal out of it. More important, he leads what is one of the most interesting and distinctive bands (it's hard to imagine these new songs in any other instrumental context, they're so unerringly right) to have emerged from the whole New Rock movement.

This can hardly be overstressed. What makes the Clash exciting is, among other things, that they're un schooled musicians playing well beyond their limits. Joe Jackson and company achieve a comparable excitement by coming from the opposite direction: they're players of enormous accomplishment doing their damnedest to strip their music down to its elemental essentials. The result is almost always exhilarating, the more so because they
JOE JACKSON: not just another snappy dresser

make it all sound so effortless. Anyone who can listen to a song like this album’s Don’t Wanna Be Like That without being left breathless is just trying to be difficult; rock-and-roll this kinetic needs no apologies.

Add to all this a sense of humor that is pointed without being nasty (The Band Wore Blue Shirts is a wry tale of Joe’s days as a lounge pianist, Kinda Kute is self-aware pop revisionism, the title song is one of the neatest critiques of consumerism in ages, and It’s Different for Girls is haunting, delicate sexual satire) and you have to concede that Jackson is on the verge of becoming a major figure. In fact, let me go way out on a limb here: he may well become (and deservedly) the first platinum star of the post-punk era. Not because he’s somehow pulled punk’s teeth, but because, in his own modest, canny way, he’s an original with something interesting to express musically and lyrically, and he has a wonderful sly grin to temper his sincere put-downs. Don’t miss “I’m the Man.” It’s got a great beat, you can dance to it, and any rational person would give it a 95.
—Steve Simels

Bridge and Britten: Teacher and Pupil
Splendidly Served
By the Gabrieli

London Records has been issuing some really splendid chamber-music records in its economical Treasury Series, among them a distinguished series of performances by the Gabrieli Quartet which are not reissues and which would have been welcome on the full-price label. The Gabriels have shown themselves to be especially sympathetic interpreters of quartets by Slavic composers (Janáček, Dvořák, Tchaikovsky, Shostakovitch) and equally persuasive in the standard repertoire (Beethoven, Mendelssohn). Now they have given us a generously filled and unusually appealing collection of some fairly well-known and some virtually unknown English music from the first half of our century.

The composers represented are the late Benjamin Britten and his teacher, Frank Bridge. The only really well-known work on the disc is Britten’s Phantasy Quartet for Oboe and Strings, Op. 2, in which three members of the Gabrieli are joined by oboist Janet Craxton. Britten’s early String Quartet in D Major, composed in 1931 at the age of seventeen, preceded his “official” First Quartet (recorded, together with No. 2, on London STS 15303 by the Allegri Quartet) by a full decade, but it was not performed in public until the Gabriels presented it at the Aldeburgh Festival in 1975. It is a remarkably substantial and well-wrought piece for a seventeen-year-old, with a concentrated Allegro maestoso and a pizzicato-filled finale framing a slow movement at once dignified and intimately expressive.

Bridge is represented by his relatively familiar Three Idylls and another three-movement work, the more impassioned Novelletten. Both were composed close to the time Bridge turned thirty, several years before Britten was born: the second of the Idylls is the piece on which Britten based his first internationally successful composition, the Variations on a Theme by Frank Bridge, Op. 10, for string orchestra. These earlyish works by Bridge (whose style changed noticeably after World War I) and the student work by Britten not unexpectedly have several features in common; what they share most of all is the most direct sort of communicativeness, based equally on having something to say in the first place and an instinctive feeling for the string-quartet medium as a form to say it in. The Phantasy Quartet, which followed the 1931 String Quartet by only a year or so, is already a more distinctive work, and it has of course enjoyed wide circulation for years.

Janet Craxton, a fine oboist, is a little dry in parts of the Phantasy Quartet; her playing cannot be compared with the stunning Harold Gomberg performance on Vanguard Cardinal VCS-10064, but it is a great deal more than adequate by any other standard.

(Continued on page 92)
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The Gabrieli Quartet: appealing English music

standards, and she gets more committed playing from her string associates than Gomberg gets from his. All four works are set forth superbly by the Gabriels, and the recording itself is downright magnificent—rich, well balanced, exceptionally realistic. I hope we get many chamber-music releases of similar distinction this year—and at this price.

—Richard Freed

BRIDGE: Novelletten for String Quartet; Three Idylls for String Quartet. BRITTEN: String Quartet in D Major; Phantasy Quartet for Oboe and Strings, Op. 2. Janet Craxton (oboe, in Phantasy Quartet); Gabrieli Quartet. LONDON STS 15439 $4.98.

Mozart Sacred Arias
By Edith Mathis:
It's a Sin to Be Without Them

A NEW Deutsche Grammophon album of Mozart sacred arias by Edith Mathis has so much to recommend it that it is difficult to know where to begin its praises. Perhaps the most thrilling thing is the taste we get of an oratorio that Mozart composed at the age of ten, Die Schuldigkeit des Ersten Gebots. The two arias from it presented here are miracles of drama and excitement, one dealing with roaring lions and a sleeping hunter and the other exulting in the joy of being alive. The mind simply boggles to think of a child writing this fabulous music. Most of the other works, especially the Exsultate, Jubilate, are better known, but it is a treat to hear them sung so beautifully by Edith Mathis.

Miss Mathis is the ideal Mozart singer. Her voice is well focused, and she boasts a soaring legato as well as a brilliant coloratura technique. This combination is rare in a single singer, but it is essential for Mozart's vocal style, which makes the highest demands on each quality within a single work. Particularly stunning here is the Alleluja from the Exsultate, Jubilate; the finely phrased long legato lines of the Laudate Dominum from the Vesperae Solennes de Confessore are also exquisitely projected.

The Dresden Staatskapelle under the direction of Bernhard Klee offers excellent support. The purely instrumental sections are finely wrought, and when the orchestra turns to accompany Miss Mathis the balance and ensemble are ideal. In short, this is one of the finest Mozart discs that has appeared in a long time. The sin of not owning it must be classified as mortal.

—Stoddard Lincoln

MOZART: Exsultate, Jubilate (K. 165); Grabe Musik (K. 42); Betracht dieses Leiden. Die Schuldigkeit des Ersten Gebots (K. 35); Ein ergrimmter Löwe brüllt; Hat der Schöpfer dieses Lebens, v. Vesperae Solennes de Dominica (K. 321); Laudate Dominum. Vesperae Solennes de Confessore (K. 339); Laudate Dominum. La Betulia Liberata (K. 118); Quel nocciol che in gran procella. Edith Mathis (soprano); Hans Otto (organ, harpsichord); Dresden Boys' Choir (in K. 339); Dresden Staatskapelle, Bernhard Klee cond. DEUTSCHE GRAMMOPHON 2530 978 $9.98, © 3300 978 $9.98.
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Russian Dmitri Alexeev made a powerful impression with his performances of the Opp. 117, 118, and 119 sets (Angel S-37290). Lupu's achievement does not lessen Alexeev's, but it does surpass it, I think, because here it is the music itself that impresses: one simply loses one's awareness of a virtuoso at work. The sound is up to London's highest standards, but the pressing, regretfully, is not. On my copy the rhapsody, at the end of side two, is disfigured in a way that suggests the entire run might have been affected. Try to hear this band before you buy, if you can, but don't miss this record.

BRIDGE: Novelletten for String Quartet; Three Idylls for String Quartet (see Best of the Month, page 90)

BRITTEN: String Quartet in D Major; Phantasy Quartet for Oboe and Strings, Op. 2 (see Best of the Month, page 90)


Performance: Dull
Recording: Good

A very straight-looking Peter Serkin peers out from the cover of this very straight collection of Chopin performances. The lead-off variations are a straight and rather dull salon set on a theme by the opera composer Hérold—a justly neglected piece of minor Chopiniana. A group of six mazurkas and a waltz treated with an even hand are not much more exciting. Serkin strikes a dance tempo and keeps to it. Since I'm a leading advocate of straight time for dance music, even stylized, I suppose I shouldn't complain. But straight time doesn't have to mean a straight performance; the rubato goes across the beat, even across the bars. Isn't there a single classical pianist alive who can perform a feat that jazz and pop musicians manage every beat of their lives and that was standard procedure between, say, 1750 and 1850 and was practiced by Chopin himself? Come on, fellas, it can be done.

The nocturnes, barcarolle, and other assorted shorter pieces here are laid-back, quietly elegant, and dull too. Too anemic. Peter Serkin has been one of my favorite pianists, but I object to the reduction of Chopin to a mere salon salamander. Is it lack of sympathy with Chopin or just plain neo-conservatism that makes this recording sag? Whatever it is, I hope Serkin gets over it.

E.S.

RECORDING OF SPECIAL MERIT


Performance: Luminous
Recording: Outstanding

One might take issue here with Lorin Maazel's brisk pacing of the "big tune" that dominates the final movement of La Mer, but in all other respects his reading has a singular luminosity of line and color. In terms of the performance alone, this disc by no means displaces those of Boulez and Toscanini in my affections, but I have hardly ever heard such felicity of detail so well captured in a recording. In contrast to a fair number of other London recordings, this fine detail does not seem to have been achieved by excessive multimiking and knob twiddling. Rather, a real effort was apparently made to use a minimal number of microphones properly placed in a virtually ideal recording locale. The results come surprisingly close to digital standards.

Scriabin's superheated Poem of Ecstasy profits from Maazel's cool treatment, and, as with La Mer, one can take great pleasure in...
the refinement and unerring virtuosity of the Cleveland players. The performance is neither as spectacular as the one by Claudio Abbado and the Boston Symphony nor as as torrid as Zubin Mehta's with the Los Angeles Philharmonic, but in its own way it is outstanding—and also very well recorded. D.H.


Performance: Gorgeous
Recording: Startling

One of the finest things Percy Grainger did in his later years was to arrange for two pianos the fantasy on George Gershwin's Porgy and Bess heard on side one of this direct-to-disc recording from Crystal Clear, a company that has certainly earned the right to its name by the remarkable clarity of sound of its products. The Grainger arrangement, replete with subtle and delightful embroideries on themes from the opera, is divided into ten parts, but the flow is almost seamless and the whole concept is finer than other efforts along the same lines (such as Earl Wild's Grand Fantasy on Airs from Porgy and Bess). Robert Phillips and Franco Renzulli, the duo pianists responsible for the album, play Grainger's score with an admirable balance between verve and sensitivity. Their own overside treatment of six Gershwin songs suffers, however, from pretentiousness (their impressionistic arrangement of I Loves You Porgy is almost outlandishly elegant) and cannot possibly stand comparison with Gershwin's own forthright, felicitous piano settings in The Gershwin Songbook, especially as recorded by William Bolcom on None such. The sound, though—wow! P.K.


Performance: Communicative
Recording: Excellent

In her commitment to record everything Grieg wrote for solo piano, Eva Knardahl is covering some ground that has not been covered before, and some of the material in so exhaustive a survey is bound to be less important and/or less appealing than the rest. This package, I suspect, is more for the dedicated Grieg devotee or the collector with a passion for complete editions than for the general listener, though I cannot imagine anyone's failing to find pleasure in it. The two sets of song arrangements are more substantial than the very early (1863) Poetic Tone-Pictures, whose six tiny sections now and then recall Schubert or Schumann, less consistently hinting at the Norwegian flavor that was to pervade Grieg's mature works. That flavor is found in abundance in the song arrangements, some of them representing completely new treatments of the originals (among which are several of Grieg's best-known songs—I Love Thee, To Spring, The Princess, Solveig's Song, etc.). These might be regarded as supplements to the long and fascinating series of Grieg's Lyric Pieces that Eva Knardahl has already recorded; she presents these little-known sets with the same degree of involvement and communicativeness shown in those recordings. R.F.

HARBISON: The Flower-Fed Buffaloes (see RZEWSKI)
J. HAYDN: Horn Concertos Nos. 1 and 2, in D Major. M. HAYDN: Concertino in D Major. Barry Tuckwell (horn); John Constable (harpsichord); English Chamber Orchestra. ANGEL SZ-37569 $8.98.

Performance: Intrigating
Recording: Good

RECORDING OF SPECIAL MERIT
J. HAYDN: Horn Concerto No. 1, in D Major. J. HAYDN (attrib.): Flute Concerto in D Major. Erich Penzel (horn); Hans Martin Linde (flute); Collegium Aureum. QUINTESSENCE PMC-7124 $3.98, © P4C-7124 $3.98.

Performance: Intrigating
Recording: Good

None of these four concertos is in any danger of being called a masterwork, but all of them are extremely intriguing, and the Flute Concerto is certainly no less so because of its uncertain authorship. (The best guess seems to be that it was actually composed by Leopold Hofmann, who was born and died during Joseph Haydn's lifetime.) Because charm is so clearly the chief element in all these works, the Quintessence disc is one I would want even if I had several other versions of the works on it, for it is very long on that quality, as well as on all-round musicianship of a very high order; it happens to be, moreover, the only recording of the Flute Concerto available at present. These are the same performances that were available earlier on Victrola VICS-1324; it is good to have them back, sounding as fresh as ever, and it should be a source of embarrassment to several full-price labels that Quintessence is able to give us such fine surfaces for such a low price.

What should be a source of embarrassment to Angel is the three-work "sandwich" offered on the new Barry Tuckwell disc. The performances (all with Tuckwell apparently conducting as well as playing the solo part) are as brilliant as one would expect, Pollini and conductor Claudio Abbado obviously love the work, and they seem equally at home in the more obvious, breathtaking fantasy play of the Second, whose bigger and flashier finale gets a particularly happy realization. And the combination of a superb American orchestra and German recording wizardry does not exactly hurt. This disc provides a big sonic canvas, and Pollini, Abbado, and the Chicago Symphony paint on it with large gestures. A thrill a minute.

—Eric Salzman

BARTOK: Piano Concerto No. 1, written in 1926, is much less well known than his two later ones, which are progressively more popular in character. But Maurizio Pollini's new Deutsche Grammophon recording of the work, together with the Second Concerto, ought to help change that. After hearing this convincing, exciting performance, I now like the First Concerto, in some ways, even better than the other two.

The First Concerto dates from Bartok's so-called "difficult" period, and it has been tagged as problematic not only to play but to listen to as well. I don't find it so, however, especially as it's played here, and neither, I suspect, will most contemporary listeners. It has drive, invention, clarity, and excitement; it is, in fact, much like its successors—only more so.

Pollini and conductor Claudio Abbado

BARTOK: Piano Concertos Nos. 1 and 2. Maurizio Pollini (piano); Chicago Symphony Orchestra, Claudio Abbado cond. DEUTSCHE GRAMMOPHON 2530 901 $9.98, © 3309 901 $9.98.
**Digital Tchaikovsky: A Blockbuster “1812 Overture”**

It was inevitable, of course, that the new digital recording technology would produce a recording of Tchaikovsky's *1812* to dwarf Mercury's pioneering 1954 mono disc complete with Napoleonic cannon, church bells, and brass band at the end. Erich Kunzel does a thoroughly capable conducting job here, though there is not the same tautness, in *1812* and the *Capriccio Italien*, that Antal Dorati has given these pieces. Indeed, I find that both the best playing and the best sound on the record are achieved in the *Mazeppa* dance with its relatively modest forces and more transparent scoring. As always with digital recording at its best, one is made aware of the fine details, such as the violin overtones at the very beginning. Even here, however, as in the *Capriccio Italien*, the low percussion seems a bit overbearing relative to the rest of the orchestra, which may be owing to placement of the bass drum and timpani in a highly reflective spot in Cincinnati’s Music Hall.

So what about the *1812* ending? Quite simply, it will knock you out of your chair—if it doesn’t blow out your speakers. I’m referring, of course, to the shots from the three nineteenth-century cannons, which manifest themselves at the proper moments (occasionally the timing is just slightly off) and with varied perspective and localization. You don’t just hear them, you feel the concussion right down to your toe tips. The bells, from the Emery Memorial Carillon, also come off splendidly and in the right style. Minor musical reservations aside, this *1812* is an audiophile's dream. But be sure everything is battened down and your playback equipment is in top shape before you try it out.

—David Hall

**RECORDING OF SPECIAL MERIT**

**MAHLER: Symphony No. 9. Symphonica of St. Martin in the Fields, on two Argo discs (ZRG 5498 and ZRG 543)** whose layouts are quite sensible.

R.F.

**HINDEMITH: Mathis der Maler (see Best of the Month, page 86)**

**RECORDING OF SPECIAL MERIT**

**MAHLER: Symphony No. 9. Symphonica of St. Martin in the Fields, on two Argo discs (ZRG 5498 and ZRG 543)** whose layouts are quite sensible.

**MOZART: Piano Concerto No. 21 in C Major (K. 467); Symphony No. 39 in E-flat Major (K. 543)** (RCA CRK 1-3091) and (RCA CRK 1-3092) (see Audion Review).

**LENNOX: Symphony No. 1 (op. 19). London Symphony Orchestra, Sir Adrian Boult cond.** (Deutsche Grammophon 403 008-2). A recording of unusual daring and with a very exceptional first movement, especially the exposition of the second subject.

**SIBELIUS: Symphony No. 3. Orchestre National de la RTF, Pierre Boulez cond.** (Columbia 38305). The performance is very fine and in fine perspective. The second subject is unusually handled, the development is well directed, and the coda is a tour de force. The recording is clean and live with plenty of air and naturalistic perspective.

**HANDEL: Messiah. Netherlands Bach Ensemble, Frans Brüggen cond.** (DGG 418 626-2). The recording is clean and very fine. The dynamic range is impressive and the sound is good.

**BEETHOVEN: Symphony No. 9. Wiener Symphoniker, Zubin Mehta cond.** (Elektra 65 688-2). The recording is clean and very fine. The dynamic range is impressive and the sound is good.

**BEETHOVEN: Symphony No. 6. Wiener Symphoniker, Zubin Mehta (see Audion Review)** (RCA CRK 1-3091) and (RCA CRK 1-3092). A recording of remarkable presence and vividness, with a very fine second movement, a well-paced first movement, and a very fine scherzo. The recording is clean and very fine. The dynamic range is impressive and the sound is good.

**CHOPIN: Piano Concerto No. 1 in E Minor (op. 11). Wiener Symphoniker, Zubin Mehta (see Audion Review)** (RCA CRK 1-3091) and (RCA CRK 1-3092). A recording of remarkable presence and vividness, with a very fine second movement, a well-paced first movement, and a very fine scherzo. The recording is clean and very fine. The dynamic range is impressive and the sound is good.

**TCHAIKOVSKY: 1812 Overture, Op. 49; Capriccio Italien, Op. 45; Mazeppa, Cossack Dance. Cincinnati Symphony Orchestra, Erich Kunzel cond.** (TELARC DG 10041). A recording of excellent clarity and transparency, with fine top brilliance and very fine dynamic range. The recording is clean and very fine. The dynamic range is impressive and the sound is good.

**MASCAGNI: Cavalleria Rusticana. Renata Scotto (soprano), Santuzza; Plácido Domingo (tenor), Turiddu; Pablo Elvira (baritone), Alfio; Isola Jones (mezzo-soprano), Lola; Jean Kraft (mezzo-soprano), Mamma Lucia; Anne Simon (mezzo-soprano), Peasant Girl. Ambrosian Opera Chorus, National Philharmonic Orchestra, James Levine cond.** (RCA CRI 1-3091). A recording of excellent clarity and transparency, with fine top brilliance and very fine dynamic range. The recording is clean and very fine. The dynamic range is impressive and the sound is good.

**MAHLER: Symphony No. 9. Symphonica of St. Martin in the Fields, on two Argo discs** (ZRG 5498 and ZRG 543). A recording of excellent clarity and transparency, with fine top brilliance and very fine dynamic range. The recording is clean and very fine. The dynamic range is impressive and the sound is good.

**BEETHOVEN: Symphony No. 9. Wiener Symphoniker, Zubin Mehta (see Audion Review)** (RCA CRK 1-3091) and (RCA CRK 1-3092). A recording of remarkable presence and vividness, with a very fine second movement, a well-paced first movement, and a very fine scherzo. The recording is clean and very fine. The dynamic range is impressive and the sound is good.

**CHOPIN: Piano Concerto No. 1 in E Minor (op. 11). Wiener Symphoniker, Zubin Mehta (see Audion Review)** (RCA CRK 1-3091) and (RCA CRK 1-3092). A recording of remarkable presence and vividness, with a very fine second movement, a well-paced first movement, and a very fine scherzo. The recording is clean and very fine. The dynamic range is impressive and the sound is good.

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Warning: The Surgeon General Has Determined That Cigarette Smoking is Dangerous to Your Health.
Schatz about 1790, which Paul Badura-Skoda has in his own collection. Its sound, not so far from that of a modern piano and yet rich in reminders of its clavichord ancestry, is an intriguing one, and it seems to fit the character of this music very well indeed. The program itself is attractive, with one side (beginning with K. 397) made up of familiar and substantial pieces, the other of less familiar or slighter ones. The D Major Minuet and the Kleine Gigue always seem to turn up together (as they do, for example, in Tchaikovsky’s Mozartiana); here the missing trio of the minuet has been provided by Badura-Skoda in the form of one in G Major that may or may not have been written by Mozart. The performances are all very satisfying, and the coloristic capacities of the instrument are especially well demonstrated in the Kleiner Trauermarsch (the tiny piece labeled Marche funèbre del Sig. Maestro Contrapunto) and the K. 265 variations. The sound is very clean, with just enough depth.

R.F.

MOZART: Sacred Arias (see Best of the Month, page 92)

PAER: Leonora. Ursula Koszt (soprano), Leonora; Edita Gruberova (soprano), Marcellina; Siegfried Jerusalem (tenor), Florestano; Norberth Orth (tenor), Pizzarro; John Van Kesteren (tenor), Fernando; Giorgio Tadeo (bass), Rocco; Wolfgang Brendel (baritone), Giacchino. Bavarian Symphony Orchestra, Peter Maag cond. LONDON OSA 13133 three discs $26.94.

Performance: Good, but . . .

Recording: Good

Beethoven based Fidelio on a French play by Jean Nicholas Bouilly called Léonore, ou l’Amour Conjugal, which had already been turned into operas by Pierre Gaveaux (Paris, 1798) and Ferdinando Paër (Dresden, 1804). Beethoven is said to have admired Paër’s Leonora, and its exhumation after some 150 years of oblivion answers many questions about Fidelio’s relationship to its predecessor. There are so many similarities between Paër’s Italian libretto (author unidentified) and Fidelio that I will not attempt to enumerate them here. Even more remarkable are the resemblances of musical devices: the horn obbligato under Leonora’s first-act aria; the lengthy orchestral introduction to the Prison Scene, which is broken by Florestano’s sudden cry of despair; and the dramatic sound of the trumpet call signaling the Minister’s arrival. I hasten to add, though, that there are no thematic similaities.

The librettos show some differences, of course, though listeners familiar with the original 1805 version of Beethoven’s opera (which was named Fidelio against Beethoven’s wishes to avoid confusion with Paër’s creation) will note that there too the Leonora-Marcellina subplot is given more prominence and the final scene with Florestano’s liberation occurs in the dungeon. There is no chorus in Paër’s opera, and this means that the prisoners are not audible. “L’amore coniugale” is the dominant subject here; the issue of freedom versus tyranny is never allowed to obscure it.

I am delighted to discover this work and wish I could hail it as a neglected masterpiece. But Leonora is far from that: a pleasant, skillfully constructed opera by a composer who clearly knew his Mozart but who lacked the adventure and imagination to take advantage of magnificent dramatic opportunities in the other hand, would we have missed those opportunities without a knowledge of Beethoven’s Fidelio? Paër was essentially a composer of comic operas. For that genre, his writing is fluent, his ensembles show considerable skill, and his melodic writing, though it is too decorative, is not without moments of distinction. In sum, we have here a touching and intimately scaled love story made of ingredients that inspired Beethoven to shake his fist at tyranny and grip our consciences forever.

Peter Maag, who has provided valuable background material to the opera in the annotations (which, inexplicably, contain no biographical data on the composer), conducts with the affection and admiration that radiate from his writing, and the orchestral playing is first-class. The singing, however, is not uniformly successful. Paër’s vocal writing is very demanding. The highest-ranking parts of Leonora (who is initially called “Fedele” in the opera) are both quite good; the latter, being said to have admired Paër’s Fidelio in this opera) and Florestano are also burdened with florid passages that are uncomfortable for Ursula Koszt and Siegfried Jerusalem, though both are excellent singers. Edita Gruberova lacks neither altitude nor agility for the substantial role of Marcellina, but her tone quality is less than endearing. Wolfgang Brendel (Giacchino) and Giorgio Tadeo (Rocco) are both quite good; the latter, being

(Continued on page 100)
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Musgraves
"Mary, Queen of Scots"

THEA MUSGRAVE: astonishing density

THEA MUSGRAVE, born in Scotland in 1928, studied with Hans Galt at Edinburgh University and the late Nadia Boulanger in Paris, but her compositions didn't really begin to attract attention until the Sixties. Though her music is often experimental, she brings a romantic element even to the most avant-garde of her works. She has written three full-length operas, but Mary Queen of Scots, commissioned by the Scottish Opera and first performed by that group at the Edinburgh Festival in 1977, is the first to be available on records in the U.S.

It was courageous of Musgrave to tackle the eminently appropriate subject of Mary (whose ghost still powerfully haunts the Scottish psyche) for the festival in Edinburgh, and that courage was rewarded with a triumph. Mary, Queen of Scots stirred audiences not only in Scotland's capital but later in Newcastle, Wolverhampton, and Glasgow. In April 1978, the Virginia Opera Association offered five performances of their own production in Norfolk, Virginia, where the opera again met with tremendous enthusiasm. It is a live recording of that American premiere that is offered in an outstanding new album from the Moss Music Group.

Musgrave wrote her own libretto for Mary, basing it on the unpublished play Moray by Amalia Elguera, who had written the libretto for Musgrave's second opera, The Voice of Ariadne (based on a Henry James story). The action involves the events in the young queen's life from 1561, when she returned from France at the age of eighteen to take the throne, through 1568, when she was relieved of her crown and left in dishonor for England, where Elizabeth would eventually have her head. Although it is heavy with history and turbulent with the conflicts among the "three stars" of Mary's firmament—her brother, the Earl of Moray; the ambitious Earl of Bothwell; and her lover Henry Stewart, Lord Darnley, whom she defiantly marries—the rather Shakespearean libretto moves fleetly and economically to its tragic denouement. And it is set to music that is never less than exhilarating and arresting.

There is an astonishing density at times in this score. For example, while Mary dances with Darnley, Bothwell denounces him as a weakling; the recitative cuts across the serene rhythms of a series of sixteenth-century dances based on Scottish, French, and Italian airs, producing moments of excruciating tension. From the start, the craggy music of this opera seems to rise out of the very muck and mists of the Scottish weather. If one tends to grow a little weary toward the end of all the quivering strings and ominous drum rolls, there are so many surprises—Mary's lullaby to her infant son at the start of the third act is among the most charming—that one's involvement never flags.

As Mary, the young American soprano Ashley Putnam is a commanding presence throughout, every bit the willful queen even in her most yielding moments, and her voice has all the power necessary to cope with an exceptionally taxing role in a very high register, though there is an occasional edginess of tone. In Jake Gardner (Moray), Barry Busse (Bothwell), and Jon Garrison (Darnley), she has the support of strong male singers who have all the power necessary to cope with an exceptionally taxing role in a very high register, though there is an occasional edginess of tone. In Jake Gardner (Moray), Barry Busse (Bothwell), and Jon Garrison (Darnley), she has the support of strong male singers who are also splendid actors, and the well-drilled chorus and orchestra, under Peter Mark's direction are in consistently excellent form. Since the recording was made on opening night, it has all the drawbacks one might expect—chronic coughers who seem to have come to the opera house only to indulge in bronchitic seizures, fidgety rustlings, ill-timed bursts of applause, and so on. But, at the same time, there is that special feeling of excitement at being part of a distinguished event, which the American premiere of Mary, Queen of Scots certainly was.

—Paul Kresh

MUSGRAVE: Mary, Queen of Scots. Ashley Putnam (soprano); Mary; Jake Gardner (baritone); Earl of Moray; Barry Busse (tenor); Earl of Bothwell; Jon Garrison (tenor); Lord Darnley; Charles Serrano (bass-baritone); Cardinal Beaton; Kenneth Bell (bass-baritone); David Riccio; Francesco Soriano (bass); Lord Gordon; Robert Randolph (baritone); Earl of Morton; Pietro Pozzo (tenor); Earl of Ruthven; others. Chorus and Orchestra of the Virginia Opera Association. Peter Mark cond. MESS MUSIC GROUP MMG 301 three discs $24.95.

the only Italian member of the cast, is also most successful in characterizing his role. In Paër's opera, both Pizarro and Don Fernando are tenors; John Van Kesteren's Don Fernando is adequate, but Norbert Orth's Pizarro is weak, without any audible sign of villainy.

Perhaps some day we'll be allowed a glimpse of Gaveaux's long-forgotten work as well. If so, we may get the answer to a still unsolved mystery: the first name of the man Leonora loved with unbridled passion and unshakable fidelity, yet with enough formality never to call him by anything but his surname.

G.J.
JBL'S NEW L150: ITS BOTTOM PUTS IT ON TOP.

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Frederick Rzewski's career has taken him from the outer reaches of the avant-garde to minimalism to a kind of improvisation to a sort of new tonality-the New Tonality Sweepstakes-and it is superbly played here by the instrumental ensemble Speculum Musicae, which worked closely with the composer in its creation.

John Harbison's The Flower-Fed Buffaloes was commissioned by, of all people, the New York State Bar Association. The text was to be Judge Learned Hand's address "The Spirit of Liberty"-a rather unwieldy piece of prose for a musical setting (I suspect that the lawyers were thinking of Copland's A Lincoln Portrait). Instead, poems by Vachel Lindsay, Hart Crane, Michael Fried, and Gary Snyder were substituted on a rather dubious claim of parallel inspiration; rather than affirming the spirit of liberty in this country, these poems express its historical crisis. This work too is full of references to the vernacular, but whereas the Rzewski is engaging and flexible, the Harbison is stern and precise (with, it's true, a solemn and spacy finale). I like the sound of this recording—which sets the chorus too far back—less than I like that of the Rzewski, and I like the Harbison less as music too, but both works are worth your attention and involvement.

E.S.

Performance: Good, soloists uneven
Recording: Very good

Saint-Saëns composed this Mass in 1856, about the time he turned twenty-one, and dedicated it to the Abbé Gabriel, in whose church (Saint-Merry) he served as organist. Liszt said grand things about the work, but it has hardly been heard, or even heard of, in the last hundred years or more. In its original form the score called for an orchestra; it might have been more interesting to hear that version, but at least the one recorded here is also the composer's own. There is little to hint of the Saint-Saëns we know, the work being rather a documentation of the young composer's veneration of Mozart, his familiarity with Baroque music, and, above all, his enthusiasm and professionalism. The opening of the Sanctus, grand and majestic, is one of the more striking moments, and from that point the work builds in interest to the end, culminating in an Agnus Dei in which a bit more of the composer's own personality makes itself felt by way of a somewhat more sophisticated attitude toward the old style—a more forward-looking way of looking backward, one might say. One very attractive little gesture toward the past is the interpolation of the hymn O Salutaris Hostia following the Benedictus; it is set for boys' voices, with an organ accompaniment reminiscent of Bach's chorale-prelude Wachet Auf.

The boys' chorus and the organists make a handsome impression throughout this performance, but the vocal soloists fare less well, the treble sounding over the hill and into adolescence and one of the countertenors more than a little hokey. (Note that the Vickers involved here is John, with an "h," not the operatic Jon!) The sound throughout is very good, considering what must have been some tricky problems of balance. The work is decidedly not everyone's cup of tea, but it's nice to have it available to illuminate this unknown facet of the phenomenon that is Saint-Saëns.


Performance: Prickly in places
Recording: Excellent

Judith Norell's rapid tempos, flawlessness, repeated notes, and rip-saw scales and arpeggios make it clear that she is endowed with a brilliant technique, and the sonatas of Domenico Scarlatti should be perfect vehicles (Continued on page 104)
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for her. But she fusses with them. In the fast sonatas, the impetuous drive is frequently lost through tempo changes made for their immediate and short-term effect. In the lyric sonatas, the opposite is true: Norell does not really savor Scarlatti's sinuous lines by lingering on dissonant notes or stretching out a feminine ending. In general, there is too much detached, which often leads to a staccato unbecoming to the instrument.

But in the Partita in D Minor by Domenico's father, Alessandro, we find quite a different artist. The piece is a wonderful one, contrasting fiery passage work with brooding arpeggiation, lacy melodic writing with a variety of full keyboard textures. Here Norell revels in the rhapsodic material, spins a magic web of embellishments, and dramatizes the contrasts of measured brilliance and brooding improvisation. Alessandro Scarlatti's keyboard music is rarely performed today, and we must thank Judith Norell and Sine Qua Non for giving us so tantalizing a taste of it. The recorded sound is excellent throughout.

S.L.

SCHUBERT: Symphony No. 1, in D Major (D. 82); Symphony No. 2, in B-flat Major (D. 125): Israel Philharmonic Orchestra, Zubin Mehta cond. LONDON CS 7114 $8.98, © CS5 7114 $8.98.

Performance: Buoyant
Recording: Warm, but bass heavy

Zubin Mehta's enjoyment of these symphonies is apparent in his buoyant readings, and the IPO is on its toes throughout both works; such crisp, vivacious performances (with first-movement repeats taken, incidentally) would send any concert audience home smiling. On a record, however, the appeal of these extroverted performances tends to thin out a bit with repeated hearings. Perhaps one needn't look for depth in these charming, generally unpretentious works written by a boy in his mid-teens, but the similar coupling by Karl Böhm and the Berlin Philharmonic (Deutsche Grammophon 2530 216) shows at once what is missing on the new disc. It is not a question of excessive energy on Mehta's part or less distinguished playing by his orchestra (which sounds lovely in London's warm and vivid, if dissonant notes or stretching out a feminine manner of the Four Last Songs) captures little of the composer's own and are, of course, rich and colorfully sensuous. Wiegenlied which can be insufferably coy at times, almost to the level of the others. And Te Kanawa manages to elevate Muttertändelei, which can be insufferably coy at times, almost to the level of the others. But his brisk tempo for September (the first of the Four Last Songs) captures little of the song's lyric spirit, and any rendition of Zueignung that disposes of its fervent message in less than a minute and a half is necessarily hurried and devoid of rapture, even with such an exceptional singer as Kiri Te Kanawa.

G.J.

RECORDING OF SPECIAL MERIT

STRAVINSKY: Pulcinella (revised version), Teresa Berganza (mezzo-soprano); Ryland Davies (tenor); John Shirley-Quirk (bass); London Symphony Orchestra, Claudio Abbado cond. Deutche Grammophon 2531 087 $9.98, © 3301 087 $9.98.

Performance: Distinguished
Recording: Crisp and clear

The familiar concert suite from Pulcinella represents Stravinsky at his wit's best, most (Continued on page 106)
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**VAUGHAN WILLIAMS: The House of Life; Songs of Travel.** Anthony Rolfe Johnson (tenor), David Willison (piano). CHALFONT C77.017 $7.98.

Performance: Good
Recording: Very good

These two song cycles were both written early in Vaughan Williams' career (1904), but they are quite dissimilar. *The House of Life,* six settings of texts by Dante Gabriel Rosetti, is sensuously romantic, with occasional impressionistic tints. The *Songs of Travel,* nine settings of Robert Louis Stevenson poems, are more virile and "English." The style is more declamatory too, though one of the songs (*Whither Must I Wander*) is like a haunting folk song. The word settings seem elegant, and most directly appealing. The full ballet score, with voices, is more in the nature of an acquired taste, and it was a bit of a surprise to see it turn up in Claudio Abbado's continuing survey of the composer's works, especially since Abbado opted in an earlier release for the standard 1919 suite from *The Firebird* rather than the increasingly fashionable full-length version of that score. Perhaps there seemed to be more of a need for a full-length *Pulcinella.* Stravinsky's own stereo remake is a good deal less persuasive than his mono recording with the Cleveland Orchestra, and it is available now only as part of a three-disc set (Columbia DJS 761). I have been enjoying the economical London review (STS 15218) of the stylish recital under Ernest Ansermet, who conducted the première in 1920. His soprano has a too-insistent vibrato at times, and he perhaps overemphasizes some contrasts between fast and slow sections, but the performance breathes a unique authority and conjures up a world—perhaps not so much that of the *commedia dell'arte* as of the pastoral scenes of Watteau and Fragonard—with a chamber-music clarity that is especially telling in the decidedly un-Watteau-like *Vivo.*

Abbado's approach is strikingly different. His *Pulcinella* is bigger, more tightly organized, more intently theatrical; the elegance here is of a different sort, with the emphasis on smooth cohesiveness and high polish. While I miss Ansermet's insinuating way with the *Vivo,* what Abbado offers is by no means a superficial gloss: his performance is exciting in the most delightful way, reminding us rather forcefully in several numbers that it is not to *Les Noces* alone that we may look for the Stravinskian roots of Orff's *Carmina Burana.*

The new version is also much better sung than any of the earlier recordings. It was a clever idea to get Teresa Berganza for this assignment (in the way of an encore, I suppose, to her recent *Carmen* with Abbado). The virtuosic singing and playing are matched by an exceptionally crisp and clear recorded sound, and musicologist Helmut Hucke has undertaken to identify the actual sources of the "Pergolesi" tunes used by Stravinsky—some by Domenico Gallo, one by Fortunato Chelleri, one by Alessandro Parisotti, some really Pergolesi's, some simply untraceable. All in all, this is a production of enormous distinction that it would be impossible to overpraise, though the Ansermet disc remains a genuine bargain. The serious collector will want both.

R.F.
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Dietrich Fischer-Dieskau may well be celebrated by future generations as the first singer in his category to challenge his successors not only with a surpassing level of achievement in the existing repertoire but also by his performances of works he himself has called into existence. An example of the latter is his remarkable performance in the title role of Aribert Reimann’s Lear, an opera in German based on Shakespeare’s King Lear and first heard in Munich in the summer of 1978. It has now been issued in a live recording by Deutsche Grammophon.

Reimann is a German composer in his mid forties whose name has barely begun to become known to Americans. His first opera, Melusine, was given by the Santa Fe company in 1972, and two briefer works were introduced in New York on successive evenings in 1974: a song cycle, sung by Fischer-Dieskau with an instrumental ensemble conducted by Pierre Boulez, and the Concerto for Piano and Nineteen Players, with a Juilliard School ensemble conducted by Richard Duffalo and the greatly gifted Robert Black as soloist. Lear was commissioned by Fischer-Dieskau, who has evidently put at Reimann’s disposal not only his voice and his advocacy but his pocketbook as well. To have any one of these from one who is regarded by many as the most intelligent male singer of his time would be a major asset for a composer; to have them all is a trinity of blessings rarely encountered in the artistic world since the Three Graces got together.

Reimann’s Lear is more than merely a brave, bold attempt to achieve the unachievable. (Few opera lovers need to be reminded that Verdi’s long-cherished dream of an operatic King Lear eluded him; less well known is the fact that an opera called Il Re Lear by Alberto Ghislanzoni was actually produced at Rome’s Teatro Reale in 1937, for it was quickly forgotten.) In Fischer-Dieskau, Reimann knew he would have an interpreter of extraordinary abilities to write for, and he has not failed to exploit this in the role of Lear. The extraordinary combination of insight and pity that Shakespeare lavished on Lear is reflected in the increasingly detailed aural portrait of grief and despair painted by Reimann and Fischer-Dieskau in the course of the opera. Near the beginning we hear his kingly rage at Cordelia, the daughter who loves Lear most but cannot say so. Near the end there is his sorrow past bearing when he discovers how he has wronged her. In between is the scene of his madness on the heath (the problems of which, it is said, led Verdi to abandon the project). The effectiveness of the characterization, both musically and dramatically, must rank with the greatest performances of the original play.

Reimann’s compositional procedure is superbly suited to the material, and he has produced both a plausible and a playable Lear. He is committed to the general idea of the true row and the orthodox methods of manipulating one; the recitatives, which carry the narrative, are essentially dodecaphonic. But for the solo passages and the instrumental bridge interludes between scenes he permitted himself a greater melodic latitude, deviating, as circumstances suggested, into tonal repetitions, step-wise progressions, and so on. The texture of the music is varied and expanded by the use of a percussion section of nearly thirty players (everything from tom-toms to tam-tams). However, as I once wrote about his Concerto for Piano and Nineteen Players, Reimann has “a sense of delicacy and balance that mitigates the sheer noise power at his disposal.”

The telling question, though, is what happens when Fischer-Dieskau’s formidable impassioned Lear is offstage? Not much, I would have to say. Just as with other operas built around a single stupendous character, there is a notable decrease in tension, concentration, and interest in the scenes without Lear. This is especially the case in the extended stretch of Part II (the first part of the opera ends at the point in Shakespeare’s Act III when the mad Lear has been taken to Dover) that presents the workings of the rivalry between Goneril and Regan, the king’s monstrous older daughters. Composers in more traditional modes had ways of dealing with such fluctuations of stress, but Reimann’s methodology here remains the same as elsewhere. As a result, the jagged lines and excruciatingly wide leaps in the vocal writing project more of a sense of difficulty than of meaningfulness.

The last remark is, I hasten to add, no indictment of the other singers, almost all of whom were included in the cast for excellent reasons. All three sisters are exceptional—Helga Dernesch as Goneril, Colette Lorand as Regan, and the appealing Julia Varady as Cordelia. Hans Günter Nöcker as Gloucester (or Gloster, as it is in the German text), and Werner Götz as his bastard son Edmund are both excellent. One of Reimann’s most ingenious touches was to make Edgar, Gloucester’s dispossessed legitimate son, a countertenor, thus providing contrast and variety in scenes restricted to male voices. David Knutson fills the role brilliantly.

Conductor Gerd Albrecht shows himself in total command of the difficult score. The almost note-perfect live recording (put together from tapes of several performances) bespeaks very careful and extended rehearsal. The album is handsomely produced, including a replica of the elaborate program distributed at the première, but it lacks an English version of the libretto— as “adapted” from Shakespeare by Claus H. Henneberg—and any detailed discussion of the score. However, Fischer-Dieskau’s legion of admirers should not allow any such peripheral shortcomings to discourage acquisition of this manifestly great example of his art.

—Irving Kolodin

REIMANN: Lear. Dietrich Fischer-Dieskau (baritone), Lear, King of Britain; Karl Helm (bass-baritone), King of France; Hans Wilbrink (baritone), Duke of Albany; Georg Paskuda (tenor), Duke of Cornwall; Richard Holm (tenor), Earl of Kent; Hans Günter Nöcker (bass-baritone), Earl of Gloucester; David Knutson (countertenor), Edgar; Werner Götz (tenor), Edmund; Helga Dernesch (dramatic soprano), Goneril; Colette Lorand (soprano), Regan; Julia Varady (soprano), Cordelia; others. Bavarian State Opera Chorus and Orchestra, Gerd Albrecht cond. DEUTSCHE GRAMMOPHON 2709 089 three discs $29.94.
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expert—I cannot be more definite on the subject because texts are not supplied, presumably on the mistaken assumption that the English words would be easily understood. Anthony Rolfe Johnson's diction is, actually, quite satisfactory. His tone quality is pleasant, even beautiful at times, and he sings with sensitivity, if with a certain tightness above the staff.

Both cycles deserve to be discovered by American artists looking for good recital material. I believe they are known to British singers, though this is a first recording for the staff.

The recording was made in the church of St. Jude-on-the-Hill, and the strong modal melodies take on an appropriate richness in its echoey ambiance. The spaciousness of the medieval Play of Daniel. Armed with the latest scholarship concerning the performance of chant, medieval harmony, and instrumentation, Brown has filled out the unmeasured monophonic line of the original manuscript with drones, instrumental doublings on period instruments, parallel organum techniques, and descants. He has also added instrumental music where needed (in the form of estampies) and inserted an introduction and two vocal interludes. The result is a major dramatic work, full of variety, that will sound convincingly medieval to both amateur and expert.

The singers of the Pro Cantione Antiqua are, of course, completely at home in this style; more important, they treat the work as the musical drama it is. Bass David Thomas makes a fine Belshazzar, malignant and proud; countertenor Kevin Smith, as his queen, eloquently moves; tenor James Griflett's Daniel goes convincingly from grief to righteous triumph; and tenor Ian Partridge's Darius catches the Persian king's wakening emotions. The various counselors who argue for and against Daniel are also well portrayed.

The recording was made in the church of St. Jude-on-the-Hill, and the strong modal melodies take on an appropriate richness in its echoy ambiance. The spaciousness of the setting is effectively caught as the many processions move toward and away from the microphones. The miracle of this performance is its operatic quality. Once the listener gets past the medieval sparseness of the writing, he is in the world of high operatic drama.

S.L.
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The later nocturnes fare better; things do not seem held back, belabored by agogics. Both of the Op. 48 pieces are most beautifully rendered: the C Minor has an especially impassioned middle section, and the F-sharp Minor a haunting rhapsodic character. In Op. 55, No. 2, one can have nothing but admiration for the way in which Arrau delineates the interweaving contrapuntal lines. In many ways, then, this is prime Arrau, beautifully recorded. It should give listeners much satisfaction, even though alternative interpretations of many of the nocturnes (such as those by Lipatti, Friedman, Cortot, and, much more recently, Moravec) are more magical.

—Igor Kipnis


ALBÉNIZ: Iberia, Books I and II, Claudio Arrau (piano). ODYSSEY @ Y 35229 $4.98.

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Continental songstress NANA MOUSKOURI, having conquered all the rest of the world, has turned her bright eyes and talent on the United States. She pauses in her campaign for a recording at Regine's disco in New York following the release of her album "Roses & Sunshine" (Cachet CL3-1000) and a pair of concerts at Avery Fisher Hall. Left, Cachet Records president Ed Lablick; right, Stereo Review editor William Anderson.

Conclusive proof that Vaudeville is Dead: the former heavy-metal standard bearers JUDAS PRIEST ("Unleashed in the East," Columbia JC 36179) sporting disco foot gear in New York's Central Park. "Do I make a great chorus line, guys, but tell us how you're going to power chord with those shoes on. Or is the idea just to stay ahead of the competition?"

What appears to be a Man-on-the-Street interview on a planet of Aliens? It's actually JOE "LOOK SHARP" JACKSON performing "I'm the Man," at the Instant Mash, on a planet actually in Burbank. The song was "Bar the Robot," and Joe's mechanical partner in crime is the "bar" part of Fuba, an acronym for Eveyon A.I. Repair; the "fubar" goes, as the French say, "sans air."

By Steve Simels
In our ongoing effort to get a picture of BRUCE SPRINGSTEEN into every "Roto," here's the Boss in the company of buddy JACKSON BROWNE singing Stay (which can be heard on Jackson's "Running or Empty," Asylum 113) at the recent MUSE anti-nuke show at Madison Square Garden. The results of this historic collaboration will be available on a concert album sometime this year so it might be wise to start saving your pennies.

Miss Ll Undercove: Yes, that's the DIVINE BETTE (her latest is the soundtrack for The Rose, Asylum SD 1650) maintaining an unusually low profile at a recent dinner party at Le Palace in Paris. Do the French have an equivalent for "Men seldom make passes . . ."? Or for Dorothy Parker, for that matter?

Those Wedding Bells Are Breaking Up That Old Gang of Mine: DAVID BROMBERG (currently finishing a live album for Fantasy) took some time at the end of a two-month East Coast tour to make an honest woman out of long-time girl friend Nancy Josephson. After the informal ceremony at his parents' house in Taftown, N.Y., the happy couple were treated at a party at Manhattan's Bottom Line by 300 of their most intimate friends.

And still in the all-star vein, here (from another of the MUSE shows) is the one-shot supergroup of James Taylor, Carly Simon, John Hall, and Aerosmith's Steve Tyler. In case you're having trouble telling Steve from Carly, he's the one with the tattoos.

Those miffed over BLONDIE's scoring with a crossover disco hit may be further outraged by this little social note. That's lead singer Debbie Harry (center) at the world's first Disco Baby Shower, held in honor of Grace Jones (to her right, enceinte) at New York's Paradise Garage (where you don't get to park anything much heavier than your chewing gum). Also in attendance are (left to right) singer Keith Barrow, occasionally famous person Andy Warhol, Stephanie Mills (her current 20th Century single, Better Than Ever, is the theme from Starting Over), and fashion illustrator Antonio. Disaffected rockers can lick their wounds to the strains of Blondie's latest, "Eat to the Beat" (Chrysalis CHE-1225).
Herb Alpert: Rise. Herb Alpert (vocals, trumpet, flugelhorn); orchestra. 1980; Behind the Rain; Rotation; Street Life; Love Is; and three others. A&M SP 4790 $7.98, © AAM 4790 $7.98. Performance: Very good. Recording: Splendid.

For several years now Herb Alpert has been turning out albums that are musically substantial but sonically splendid no matter what equipment you play them on. The total sound environment is impressive regardless of the repertoire or arrangements. "Rise" is perhaps his most glittering achievement so far. Whether it's the eight-minute title song or Alpert's adaptation of the second-movement theme from Rodrigo's Concierto d'Aranjuez (here titled simply Aranjuez), one finds it hard to resist the magnificence of the sound that pours out of the speakers. I'm not quite sure what Alpert's albums are, but I know that they are not camp, sleaze, or nonmusic, some of the terms with which Alpert's detractors try to dismiss him. They lie in some new area halfway between pop music and electronic art. And whatever they are, they're always a pleasure to listen to.

P.R.

The Beat. The Beat (vocals and instruments). Rock N Roll Girl; Don't Fit In; Different Kind of Girl; Don't Wait Up for Me; You Won't Be Happy; Walking Out on Love; and six others. Columbia JC 36195 $7.98, © JCT 36195 $7.98.

Performance: Derivative. Recording: Good.

Here's yet another bunch of bar-band vets pretending to be kids, cashing in on New Wave energy and the success of the Knack, serving up a studied rehash of Sixties styles and attitudes without a shred of originality, melodic invention, or noticeable personality quirks whatever. Yes, you can dance to the Beat, and yes, if somebody played one of their songs on the radio and passed it off as an obscure local hit from 1966 I might even enjoy it. Which would make me as big a sucker as anybody tempted by the fashionably post-punk cover art to plunk down $7.98 on the chance these guys have as many problems with young girls as the Knack's Doug Fieger. It all leaves me with one burning question: where are the Rutles now that we really need them?

S.S.

Debby Boone. Debby Boone (vocals); orchestra. Girl Don't Come; Jamie; With All of My Love; The Worst That Could Happen. I'd Rather Be Alone; Choosey Beggar; and six others. Warner Bros./Curb BSK 3301 $7.98, © M5 3301 $7.98.

Performance: Okay. Recording: Careful.

This new album from Debby Boone, the Last of the Well-bred Girls, is underwhelming from start to finish. Her producer, Brooks Arthur, guides her (or perhaps "chaperones" would be more accurate) through the colorless repertoire with understated care. She is still the possessor of a lovely, sincere vocal style and a voice that can melt a Fudgesicle at a hundred yards, but the distant clang of awakened sexuality that reverberated through some of her earlier work, notably her hit You Light Up My Life, has dimmed into a sub-deb tinkle. Now that she's a married lady perhaps things will begin to get a little more real in future albums. In the meantime, skip this one—unless you really can't live without cotton candy.

P.R.

Cheap Trick. Cheap Trick (vocals and instruments); instrumental accompaniment. Way of the World; The House Is Rockin' (With Domestic Problems); Gonna Raise Hell; I'll Be with You Tonight; and four others. Epic FE 35773 $8.98, © FEA 35773 $8.98, © FET 35773 $8.98.

Performance: About par. Recording: Good.

Visually, Cheap Trick is such a hoot (regardless of how calculated their deliberate mismatch of pretty boys and accountants is) that it's hard to dislike them. I mean, face it; wouldn't you rather see a guitar player who looks like one of the Bowery Boys than, say, another would-be macho stud with hair down to his shoes and lots more on his chest? This, of course, begs the question of why so many of Cheap Trick's teenagers also get off on Ted Nugent, until you consider the music behind the image. Granted, Surrender was a great single, and a couple of their other tunes are reasonably cute. But when you cut through the Who synthesizer steals that are the only reason otherwise sane critics endorsed them in the first place, you inevitably realize that CT is no more and no less than a very canny, conventional heavy-metal band. Sure, they're smarter than, say, Kiss, but that only means they steal from slightly hipper sources. In any event, what we get on their albums is usually less of how calculated their deliberate missteps than a very canny, conventional heavy-metal band.

S.S.

CITY BOY. The Day the Earth Caught Fire. City Boy (vocals and instruments); instrumental accompaniment. It's Only the End of the World; Interrupted Melody; Modern Love Affair; New York Times; and seven others. Atlantic SD 19249 $7.98, © TP 19249 $7.98, © CS 19249 $7.98.

Performance: Ho-hum. Recording: Good.

Since the British Empire dissolved, the only real outlet for young, ambitious Englishmen...
has been to form rock bands, release their records in the United States, and then emigrate. City Boy is the umteenth new British group I have heard whose songs have clever lyrics about the destruction of the world and humankind provided by what must be members of the London Philharmonic scratching around for a few extra quid. If British doctors, educators, and businessmen have been fleeing from thirty years of collectivist economics—they call it the "brain drain"—is it any wonder that musicians try to do the same? Or that in the process they produce deadening, helpless, cynical music while hoping to capitalize on the traditional American fascination with a British accent? Why else did George Harrison write Taxman?

J. V.

RICK DERRINGER: Guitars and Women.

RICK DERRINGER (guitars, vocals); instrumental and vocal accompaniment. Something Warm; Guitars and Women; Everything; Man in the Middle; It Must Be Love; Desires of the Heart; and four others. BLUE SKY JZ 36092 $7.98. © AAM-740 $7.98, © JZT 36092 $7.98.

Performance: Very good
Recording: Rock atmosphere.

It's not hard to appreciate Rick Derringer's sturdy, accomplished brand of rock-and-roll, but I wonder how long he can last. No one can stay young forever, but Derringer still writes as though he were twenty-two, as though the rock-and-roll dream would never end. I'd guess that Derringer, with his skills as a guitarist (the acoustic opening to Everything here is most impressive) and his production experience (he oversaw several of the Edgar Winter albums), will continue his solo career until his albums don't sell any more and then retreat into a secure career as a studio musician and producer. He shares producer credit with Todd Rundgren on "Guitars and Women," and Rundgren is much more effective as a writer and producer for other artists than he is as a performer. The limelight is exciting but debilitating, and performing is not. I suspect, where Derringer's (or Rundgren's) strongest talents lie.

J. V.

DR. JOHN: Tango Palace.

Dr. John (vocals, piano); instrumental and vocal accompaniment. Keep That Music Simple; Disco-Therapy; Renegade; Fonky Side; Bon Temps Rouler; and four others. HORIZON SP-740 $7.98, © AAM-740 $7.98, © AAM-740 $7.98.

Performance: Very good
Recording: Very good.

It's a relief to hear that Dr. John (Mac Rebennack) has gotten back his sense of humor and the New Orleans home-town gumbo attitude toward music that makes it spicy and tasty. His last album on Horizon was a downbeat and rather pedestrian affair in which he attempted to Get Serious (or maybe he just had a bad year). He is at his best when he serves up ya-ya sass, Creole-style, and indulges in the rhythms, spirit, and gloriously muddled French-derived slang of the Crescent City.

Rebennack wrote the music for all the selections here but one (Something You Got by Chris Kenner and Fats Domino). Doc Pomus wrote most of the lyrics; his words perfectly complement both Rebennack's melodies and his nasal, cynical, but endearing vocals. The title cut is a Pomus lyrical lollapalooza, a character portrait of a small-town couple whose mutual dependence and lack of talent have turned them into reactionaries watching the world pass by. Pomus is also handy with Creole patois, as on Louisiana Lullabye, which has a worldly but tender vocal by Rebennack. Highest honors for lyrics, however, go to Gerry Goffin for the 1968 song Renegade, a about a small-time underworld drudge: "I'm out takin' all the chances/Some man is getting rich/I been workin' for the man twenty long years/And ain't met the son of a bitch."

Rebennack has been an inconsistent talent and will probably continue to be so, given his moods, but when he is on target there is no one else like him. "Tango Palace" is a hit smack in the middle of the bull's-eye.

J. V.

RECORDEROf SPECIAL MERIT

PHIL EVERLY: Living Alone. Phil Everly (vocals, guitar); instrumental accompaniment. I Was Late for the Party; Ich Bin Dein; You Broke It; Living Alone; Buy Me a Beer; California Gold; and four others. ELEKTRA 36248 $7.98, © JCA 36248 $7.98, © JCT 36248 $7.98.

Performance: Back with a rush
Recording: Very good.

In the black-and-white cover photograph, Phil Everly is behind a guitar—not in the playing position; more like hunkered down behind it—and almost in shadow except a pinhole of light hitting him around the right eye. But put the album on the turntable and it doesn't hang back in the shadows—it comes right out at ya. He sings, he writes, he discoed (twice). And, to put it simply, he has one of the most appealing voices I've heard in years.

Singing without his brother Don, Phil Everly has a sweet tenor, somewhere between Paul Simon and Paul McCartney, making not only pretty tunes but individualistic ones. He wrote the title tune and collaborated in the writing of all the others, and almost every one has something to recommend it. In general, they show a high level of taste. The two disco things seem to be included out of the tokenism that a few years ago saw most albums include a Jesus song—but one of them, You Broke It, is done as well as Rod Stewart does it.

MORE and more (especially since I saw them in concert), the Boomtown Rats strike me as the Paul Revere and the Raiders of the New Wave, which I should add is meant as a compliment. Sure, they're shameless, trendy lightweights, but by the same token they do not—unlike some of their more sanctimonious New Wave colleagues—pretend to be anything more than six clowns out to get rich in a hurry. Their music reflects that, being functional and full of borrowed bits of whatever is hip at the moment, but because they're clever and feisty, quite often (purely by accident) the results are marvellous. Hence the parallel with Revere and Company, whose records have held up far better than a lot of the serious glop ground out by their psychodelic Sixties contemporaries. (Listened to your old Country Joe and the Fish records lately? Didn't think so.)

If you don't think the Rats are aware of this, just consider this album's title, not to mention the music inside. Everything here is imitative, fashionable, and transparently rendered with an eye on the Main Chance; yet somehow it's all great fun and works.

THE BOOMTOWN RATS: The Fine Art of Surfacing. The Boomtown Rats (vocals and instrumentalists). Someone's Looking at You; Diamond Smiles; Wind Chill Factor (Minus Zero); Having My Picture Taken; Sleep (Fingers' Lullaby); I Don't Like Mondays; Nothing Happened Today; Keep It Up; Nice 'n' Neat; When the Night Comes. COLUMBIA JC 36248 $7.98, © JCA 36248 $7.98, © JCT 36248 $7.98.

Steve Simels

THE CREST CITY.
RECORDING OF SPECIAL MERIT

STEVE FORBERT: Jackrabbit Slim. Steve Forbert (vocals, guitar, harmonica); instrumental accompaniment. Romeo's Tune; The Sweet Love That You Give; I'm in Love with You; Say Goodbye to Little Jo; Wait; and five others, plus Oil, a single-song "bonus" disc. PERFORMER JZ 36191 $7.98, © JZA 36191 $7.98.

Performance: Tight
Recording: Good

If lyrics were all there were to it, I wouldn't recommend this, but they're not, so I do. Compared with most people's second albums and a lot of people's third, fourth, and fifth albums, it stands pretty tall. Forbert has a steady hand with tunes, that's one reason, and again he has an excellent back-up band, this one a mixture of Muscle Shoals and Nashville musicians. The album is less autobiographical than his first, "Alive on Arrival," and finds him less sure of what, exactly, he's trying to say. There's less to the lyrics than there appears to be; cleverness with the language is substituted for actually developing what sound like promising themes. Complications, for example, uses an anecdotal style like the Sunday supplements, but the examples it ticks off are too soft; there's nothing especially funny or whimsical or outrageous or otherwise literarily worthwhile about them. The folky narrative, January 23-30, 1978, about going back home to Meridian, Mississippi, for a week, doesn't actually deal with anything. Some other songs (not including the top Oil on the bonus disc) are perplexing in similar ways. But Forbert, unlike most "lyricists" who've come along lately, does like the English language, and he likes to play with it, and it sounds liker, inexperience is the main thing blocking him from really developing his themes. It does appear that somewhere in the back of his head he's asking the right questions. The rest will develop as he has already developed musically. He has an interesting and surprisingly expressive wavy voice, his melodies are sure and natural-sounding, never strained, his feel for the territory between acoustic folkiness and the more melodic elements of New Wave is good, and his knack for getting his tunes played right is even better. Stay tuned. N.C.

RECORDING OF SPECIAL MERIT

LARRY GATLIN & THE GATLIN BROS.: BAND: Straight Ahead. Larry Gatlin (vocals, guitar); Rudy Gatlin (guitar, vocals); Steve Gatlin (bass, vocals); Steve Smith (lead guitar); other musicians. All the Gold in California; Piece by Piece; The Way I Did Before; Can't Cry Anymore; Gypsy Flower Child; We're Number One; and four others. COLUMBIA JC 36250 $7.98, © JCA 36250 $7.98, © JCT 36250 $7.98.

Performance: Getting there
Recording: Good

Larry Gatlin's had a tendency both as singer and songwriter to try to get too fancy, but here he's toned that down and seems to be back on the track toward becoming an idiom unto himself. This album, no doubt benefiting from the cumulative effect, bithlly wipes out the need for labels such as country and pop, not by compromising them both in the normal crossover style but simply by being a Larry Gatlin album. His voice, as both singer and songwriter, is a little different and continually surprising. Something is a little bent here, and it's hard to pin down what it is. He has an affinity for putting what sound like jazz chords in unexpected places, and for bending the line of a melody as subtly and freshly as Jackson Browne does, although in a different way and so far not nearly as often. This album could use a few more themes for the lyrics—it's too Seventiesish in sticking to the subjects of sex and love and sex—but it's got some fine examples of these slightly bent tunes and the parallel tendency of Gatlin's vocals to do similarly off-the-wall things. And, as I say, it doesn't overdo it. It is by no means "straight ahead" in the three-chord country sense, but it makes pretty good time for a scenic route. N.C.

CRYSTAL GAYLE: Miss the Mississippi. Crystal Gayle (vocals); Gene Chrisman (drums); Spady Brannan (bass); Chris Leuzinger (guitar); other musicians. Half the Way; The Other Side of Me; Room for One More; Don't Go My Love; Dancing the Night Away; The Blue Side; and four others. COLUMBIA JC 36203 $7.98, © JCA 36203 $7.98, © JCT 36203 $7.98.

Performance: High-gloss
Recording: Good

Crystal Gayle and her people know a few tricks of the trade. Here, for example, they've put Dancing the Night Away and Miss the Mississippi and You, two cuts that will grab you, at the end of the sides. It tends to make you forget that some of the stuff before that was bordering on dull. It's all in the songs, which mostly aren't bright enough for her. The Blue Side, for example, is yet another bash at stylized jazzy blues for Crystal and tinkle piano. Enough, already. Then there's The Other Side of Me, an old Neil Sedaka/Howard Greenfield tune that should have worked but causes her to use the wrong part of her vocal arsenal too much (that may be the thing about Sedaka tunes: in an academic sort of way they're delightfully melodic, but let no other poor singer try to sing them and he or she comes off sounding squaky, like Neil himself). Not that this is any kind of big letdown. It's a little let-down. Being a little more demanding of songwriters ought to fix the next one. N.C.

RECORDING OF SPECIAL MERIT

HALL AND OATES: X-Static. Hall and Oates (vocals and instrumental); instrumental accompaniment, The Woman Comes and Goes; Wait for Me; Portable Radio; All You Want Is Heaven; Who Said the World Was Fair; Rumbling in Paradox and four others. RCA AFL1-3494 $7.98, © AFKI-3494 $7.98, © AFK1-3494 $7.98.

Performance: On target
Recording: Good

After a long period of attempting to prove what some have called their "hard-rock validity," Hall and Oates seem to have settled back down to doing what they do best: sing and play in a style more firmly rooted in rhythm-'n'-blues, emphasizing appealing melodic lines and fundamental dance rhythms infused with the sax and reasonably interesting instrumental colorings of rock. On "X-Static" they seem to have struck a fine and inviting balance. Several of the selections are (Continued on page 120)
You're looking at four new machines that have more in common with data recorders than audio recorders. Together they are called the X-Series. And they bring a totally new kind of technology to the open reel format.

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The little wiseacre is still very much up to his religion or joined the temperance movement.

occurred to the road -company Burt Reynolds acceptance of a lot closer to what everyday life is like for maze. "Okay, it ain't Camus-but it's a hell time/Now I'm takin' my time with my and while he "used to go crazy for days at a grown-up act doesn't?"

since Buffett was "discovered," he's been a personification of the impudent, half-pint smart-ass at the end of any seedy bar you've ever wandered into, the one with a whiplash crack or double-entendre for anyone brave enough to walk in the door and ask for a drink. As amusing, as dead-on accurate, as rowdily sentimental as his songs were, they essentially reflected the insecure bravado of the bar clown. Buffett's new work no longer allows that he enjoys "this life as a jester," but that person is someone you'd like to know. Stranded on a Sandbar

The world and its ways, but there is also a song for children of all ages. Jimmy Buffett is still as sharp, as full of vinegar as ever. (His background vocal group, which includes James Taylor and Dave Loggins, among others, is known as the Embarrassing Stains—so take that, John Denver!) But he is beginning to come into his own as much more than the cut-up of the Everglades and all points south. Dreamsicle, about the problems of being an "overnight sensation"—"I got house pets, Lear jets/Tryin' to learn about bassinettes/Oh Miss Piggy dance with me/Let me take you to the sea"—is as funny and incisive as a Muriel Spark short story. Chanson pour les Petits Enfants is a song for children of all ages that has the airy delight and mystery of an ancient tale. Yes, Jimmy Buffett is still as sharp, as full of vinegar as ever. (His background vocal group, which includes James Taylor and Dave Loggins, among others, is known as the Embarrassing Stains—so take that, John Denver!) But he is beginning to come into his own as much more than the cut-up of the Everglades and all points south. Dreamsicle, about the problems of being an "overnight sensation"—"I got house pets, Lear jets/Tryin' to learn about bassinettes/Oh Miss Piggy dance with me/Let me take you to the sea"—is as funny and incisive as a Muriel Spark short story. Chanson pour les Petits Enfants is a song for children of all ages that has the airy delight and mystery of an ancient tale. Yes, Jimmy Buffett is still as sharp, as full of vinegar as ever. (His background vocal group, which includes James Taylor and Dave Loggins, among others, is known as the Embarrassing Stains—so take that, John Denver!

reminiscent of their biggest previous hits, especially Wait for Me, which is a first cousin of She's Gone—and that is meant as a compliment. Expectedly, there is a polite gesture toward disco, Portable Radio (a most appropriate title), but it is cleverly done. Yet they have not entirely abandoned hard rock, for on the last three tracks they let go with some uninhibited, heavily energized sounds. This set should please their fans in various musical camps.

Joe Jackson: I'm the Man (see Best of the Month, page 89)

Jethro Tull: Stormwatch. Jethro Tull (vocals and instrumentals). North Sea Oil; Dark Ages; Something's on the Move; Flying Dutchman; Orion: Home; and four others. Chrysalis CHR 1238 $7.98, © 8CH 1238 $7.98, © CCH 1238 $7.98.

Performance: Cluttered Recording: Good

I continue to find Jethro Tull's leader Ian Anderson's lyrics intriguing, his melodies negligible, and his performances irritating. And it continues to elude me why he allows his genuine verbal gifts—his lines often approach the poetic—to be wasted in the deliberate aural bedlam of the Jethro Tull sound. Probably it's just that he doesn't want to take a chance on endangering the commercial success of the group, which is known for its surrealististically busy-busy arrangements and Anderson's zany flute playing and stage antics. But how I wish he'd take that chance!

For me, the only highlights on this latest album are some of the words. North Sea Oil, for instance, is a funny, pungent portrayal of near-bankrupt Britain's giddy hopes for salvation from the exploitation of oil reserves off the island's coasts. Dark Ages opens with this beautiful passage: "Darlings are you ready for the long winter's fall?/Said the lady in her parlour/Said the butler in the hall/Is there time for another?/Said the drunkard in his sleep/Not likely/Said the little child/What's done/The Lord can keep." And in Flying Dutchman Anderson plays wonderfully with the long vowel sound in the description of the cursed ship as a "slow ocean hobo." If only Jethro Tull's music and performances would complement Anderson's marvellous lyrics . . . but that seems past hoping for.

Michael Johnson: Dialogue. Michael Johnson (vocals); vocal and instrumental accompaniment. The Very First Time; Drops of Water/Doors; Black Cloud/Dial tone and four others. EMI/AMERICA SW-17010 $7.98, © 8XW-17010 $7.98, @ 4XW-17010 $7.98.

Performance: Good Recording: Good

Backed by a sturdy beat, with a repertoire that's basically conventional, Michael Johnson's performances have a robust familiarity. He seems to be reaching all the way back to the days of Frankie Laine and Frankie Valli for a lot of his style, and at times it works very well. But in his best tracks, the title song and Let This Be a Lesson to You, both by Tom Snow, he transcends the throw-and-soh manner of the two Frankies and displays an unforged vitality that's totally engaging.

(Continued on page 122)
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Steve Gibson, who co-produced “Dialogue” with Brent Maher, also contributes some sensational guitar work on several of the tracks. If Johnson’s vocal work (he plays a fine guitar too, but not here it seems) were as assured and as stylistically unified as Gibson’s, this album would be cause for real celebration.

P.R.

BARRY MANILOW: One Voice. Barry Manilow (vocals, piano); orchestra. One Voice: Rain; Ships: Where Are They Now; Sunday Father; You Could Show Me; and five others. ARISTA. AL 9505 $7.98, @ AST 9505 $7.98. © ACT 9505 $7.98.

Performance: Good

Recording: Good

Manilow has devised an ingratiating piece of kitsch in the title song of his new album. One Voice sums up, as well as anything could, Manilow’s virtues and vices as a singer-songwriter. It’s one of those inspirational anthems about how “We need just one voice/Facing the unknown,” and it builds like the final scene in a World War II home-front propaganda movie, the kind that had Mr. and Mrs. America regaining their faith in Democracy after some severe testing. Manilow’s taste in prose has always been on the purple side, and he tends to expand clichés to the squeaky tautness of an overinflated balloon, throwing in anything that’s handy if it suits his purposes. One Voice has him doing a solo against a chorus of “any background voices sung by Barry Manilow.” All that the final bars of the song need are Kate Smith crowing to the American flag and Lassie softly pawing the ground in exalted affirmation. But—surprise—surprise—the whole damned thing is enjoyable and instantly hummable, lacking with an opulent click into one’s surface memory.

It’s like that with practically everything else here too. Afterwards you may wonder how you got so involved, but you can’t deny that you did. I guess all those wildly successful TV commercials Manilow has done have taken from the fine musician in the casual listener. It’s not such a minor achievement, and Manilow shares it with such musical greats as Irving Berlin. His one serious misstep here is a run-through of the old Jule Styne/Frank Loesser classic I Don’t Want to Walk Without You, in which Manilow proves, once and for all, that yes, there is a Generation Gap.

MAUREEN MCGOVERN. Maureen McGovern (vocals); orchestra. In Too Deep; Very Special Love; He’s a Rebel; Yes, I’m Ready; Carolina Moon; and five others. WARNER (vocals, orchestra). 3327 $7.98, © M5 3327 $7.98.

Performance: Very good

Recording: Good

Here is Maureen McGovern, one of those solid, reliable singer-type singers, in an album with two tracks that were big MOR hits for her. Different Worlds from the TV show Annie and Can You Read My Mind, the theme from Superman. She performs them for a lot more than they’re worth, and it’s easy to hear why they hit as they did. The McGovern voice is big, spacious, and buoyantly musical; the McGovern performing manner is cheerful, worldly wise, and heartily confidential; and
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CIRCLE NO. 4 ON READER SERVICE CARD
TUSK couldn’t possibly be a loser in the marketplace. Fleetwood Mac is one of the few bands that has been respected by the Golden Age baby-boom audience; it is also going down great with these new, buttoned-down conservative alcohol guzzlers who have the nerve to call themselves kids nowadays; and, more important, it has a growing casual audience made up of people who have intelligence and taste, know what’s going on, and like music but are not obsessive about it. Ten years ago, no such people seemed to exist. Fleetwood Mac, which started back in those days as just another British band with a rock sound based on American blues, has evolved into a band with another sound entirely, a highly personalized assimilation of soft rock and mostly white folk elements. It sounds out of the more “serious” listeners. And neither could “Tusk” be a loser critically. True, it couldn’t be the kind of culmination “Rumours” was—on the Treadmill of Life, there’s only one place where you really reach your stride—but there was no reason to believe that this band wasn’t still near the height of its powers. “Tusk” suggests it is, not by doing very much that’s new or innovative, or even making any further (further than “Rumours,” that is) definitive statement, but by presenting itself as a Fleetwood Mac Experience. Style—their way of doing things—is what’s on parade here.

The experience starts with the packaging, an elaborate complex of sleeves and envelopes decorated with out-of-focus color and montages of black-and-white snapshots that, of course, show several tuskus, on and off elephants. It doesn’t remind you of pop art, exactly, but it does seem vaguely dated. It also complements the found (?) footage of Lindsey Buckingham’s songs inside. One of the main things going on in the album turns out to be the way Buckingham puts a little harder edge on the band’s overall sound with a little outbursts of sound or as contributors to a style. Walk a Thin Line, the most melodic one, is faintly reminiscent of the Bee Gees and has a touch of grandiose Angst. Its sketchy lyric is about failing (for reasons unspecified) to get a little help—ever a response—from one’s friends. Tusk has the U.S.C. Trojans marching band in the background (they sound a good deal more sophisticated than the college bands I hear at halftime), African drums in Ping-pong stereo in the foreground, and voices singing cryptic lyrics in the middle. The refrain, “Don’t blame me,” crops up in two of Buckingham’s songs. But that’s content, and, as I was saying, content is not the thing.

Christine never seems that far away and slightly above us. That contrast, of course, is part of what makes Fleetwood Mac Fleetwood Mac. First is a connection with roots in the British isles: her lovely, straightforward voice is akin spiritually to such British folk-rock girl voices as Maddy Prior’s, Jacqui McShee’s, and the late Sandy Den’s. Second is her lyrical preoccupation with the personal that notion that sex is the only thing worth saving (not as in “saving for later”). “Tusk” finds her doing her thing, delivering such lines as “Who could be sweeter than you?” “You have to have me/The way that I want you?”, “Come on, baby, don’t be cold/Just remember that love is gold,” in her dignified, understated way.

Christine, however, isn’t the sensuous one; Stevie Nicks is, singing with a wetter, breathier voice through a mousy mouth, and she tries hard to get a song to sound like poetry. As a lyricist, she’s erratic, but she’ll try lines like “I close my eyes softly/Until I become part of the wind that we all long for sometimes.” Each of the Fleetwood women writes a stylized song. One Stevie Nicks song (even “Storms, one of the simplest and nicest songs in “Tusk”) will inevitably remind you of one or two other Stevie Nicks songs in the way it sounds or segues into the bridge or does something. Christine’s all seem to float some distance away and slightly above us. Christine never seems to be down here amongst us sweating masses the way Stevie is. That contrast, of course, is part of what makes Fleetwood Mac Fleetwood Mac.

Buckingham’s songs (he wrote nine, McVie six, and Nicks five) are all cryptic, Pursuing just a snatch of an idea both lyrically and musically. They’re not about much of anything, beyond setting a mood; what they do is pick up the tempo, change the pace, liven things up. They’re only interesting in little outbursts of sound or as contributors to a style. Walk a Thin Line, the most melodic one, is faintly reminiscent of the Bee Gees and has a touch of grandiose Angst. Its sketchy lyric is about failing (for reasons unspecified) to get a little help—ever a response—from one’s friends. Tusk has the U.S.C. Trojans marching band in the background (they sound a good deal more sophisticated than the college bands I hear at halftime), African drums in Ping-pong stereo in the foreground, and voices singing cryptic lyrics in the middle. The refrain, “Don’t blame me,” crops up in two of Buckingham’s songs. But that’s content, and, as I was saying, content is not the thing.

THE Fleetwood Mac Experience offered up “Tusk” is not only comprehensive in showing the band’s style, but is also expansive (though not call expansive about it). Instrumentally, the group already had a sound that was difficult to describe but easy to recognize. Here that’s refined in the straight-ahead McVie song and the more earthy Nicks song (the instrumental subtlety and savvy reminded me more than once of Steeleye Span), and it’s stretched and distorted (though still recognizable) in Buckingham’s little mood benders. In strictly “objective” (that is, comparative) critical terms, “Tusk” is not a great album—it does not deal clearly with a sufficient number of ideas or feelings—but it is a fascinating parade of sounds.

FLEETWOOD MAC: Tusk. Fleetwood Mac (vocals and instruments). Over & Over; The Ledge; Think About Me; Save Me a Place; Over &
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1994: Please Stand By . . . . 1994 (vocals and instruments). Please Stand By . . . . Wait for Me; Don't Break It Up; Our Time Will Come; Wild in the Streets; and four others. A&M 4796 $7.98.

Performance: Okay
Recording: Okay

1994 has the dubious distinction of having coached Barbara Streisand in the ways of rock and roll. Beyond that—well, not much beyond that—they are a Blondie soundalike, a competent four-man combo backing up a sexy female lead singer who sings less than one song without trying to sound sexy. Let's face it, there's a limited market for this type of group, and Blondie has already cornered it. Still, like Blondie, 1994 has some occasional charm if you don't take them too seriously.

J.V.

THE O'JAYS: Identify Yourself. The O'Jays since 1975 have been considered a part of the contemporary market for them. The group is composed of Mauricebase, J. V. Franklin, Phillip Johnson, Walter Williams, and Paul Jones. Their first hit was 'Back Stabbers,' which was released in 1972. They have had other hits such as 'Love Train' and 'Get On Out and Party.'

THE PERSUASIONS: Comin' at Ya. The Persuasions are an all-male vocal group that was formed in 1962. They are known for their a cappella renditions of pop and R&B songs. The group consists of Roger Lingle, Thaddeus Thomas, Leon Young, and Marvin日电. Their biggest hit was the 1968 single 'The Twelve Days of Christmas.'

OSBORNE BROS. & MAC WISEMAN: The Essential Bluegrass Album. Sonny Osborne (mandolin, vocals); Mac Wiseman (vocals, guitar); Josh Graves (dobro); Buddy Spicher (mandolin, vocals); Mac Wiseman, together with the Osborne Brothers, a sharp pair and tough as nails, and several other sly musicians. There is an awful lot of electric bass in it, for some reason that eludes me, since it purports to be a cross-section of traditional bluegrass and not a professional MOR center she's working now. Her voice and manner tell me she's been around a bit. I'm curious to hear where.

P.R.
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**RECORDING OF SPECIAL MERIT**

**TOM PETTY AND THE HEARTBREAKERS: Damn the Torpedoes.** Tom Petty and the Heartbreakers (vocals and instruments); Duck Dunn (bass). **Refugee, Here Comes My Girl, Even the Losers, Shadow of a Doubt (A Complex Kid); Century City;** and four others. **BACKSTREET MCA-5105 $8.98.**

Performance: **Dese guys is good**

Recording: **Excellent**

The title of this one, if I may venture a guess, seems to be a response to the little legal hassles that prompted Petty to launch what he referred to as his Bankruptcy Tour. I like the attitude that demonstrated, and I like the attitude this album demonstrates even more: justifiable cockiness. While this doesn't have the peaks of his previous two—there are obvious up-tempo knockouts like American Girl or I Need to Know—there are no duds either; it's considerably more assured and even, and, with the exception of Louisiana Rain, which comes off a little too much like a genre piece, there's hardly a cut that is anything less than completely engaging. There are, in fact, a couple of instant classics here in the haunting Refugee and Even the Losers, which sports a particularly intense Springsteenish rave-up. As for the rest, well, Petty's great McGuinn-derived mumble remains proudly intact, the band is even more sensational than usual (check out the way they illustrate Petty's admonition to "watch her walk" on Here Comes My Girl), and the synthesis of English flash, Sixties folk-rock, and Southern grit that is the Heartbreakers' trademark seems to be coalescing into an identifiable personal style owing little to anyone but themselves. "Damn the Torpedoes" may not be the Great Tom Petty Album everyone knows he has in him, but it's gaining on it, and in any case it's clearly the work of one of the handful of truly vital mainstream rock bands currently working. Not to be missed. SS.

**POINTER SISTERS: Priority.** Pointer Sisters (vocals); instrumental accompaniment. **Who Do You Love; All Your Love; Dreaming as One; Turned Up Too Late; Happy;** and five others. **PLANET P-9003 $8.98, © T-9003 $8.98, © C-9003 $8.98.**

Performance: **Tacky**

Recording: **Satisfactory**

The Pointer Sisters—or what's left of them since Bonnie struck out on her own—have come up with an album that marks a new low in their career. I've always felt their first album was their best, showcasing their virtuosic ability to handle fast tempos and intricate arrangements. They've been going steadily downhill ever since. The fault with this latest one is not only that it was mistaken only cast in a sort of modifed country-rock mold, but that the songs just aren't very good. Furthermore, the performance is ragged and unpolished. It is difficult to believe this is the same group I once considered exceptionally promising. P.G.

**THE POP: Gat!** The Pop (vocals and instruments). **Under the Microscope; Beat Temptation; Legal Tender Love; Waiting for the Night; Maria;** and five others. **ARISTA AB 4243 $7.98, © AST 4243 $7.98, © ACT 4243 $7.98.**

Performance: **Trendy**

Recording: **Good**

"You look around at all these fashionable, relevant bands—you're Siouxsie and the Banshees, your Tubeway Armies, Those people—you know who I mean. They always look like they're constipated to me, those people. And trying too hard to be thin. The lack of humor and realism in their stuff is staggering. When I listen to them, I think—come back, Curved Air, all is forgiven. 'Cause it's just like hippy music."

The preceding statement (which I endorse) came from the mouth of Nick Lowe, who, it must be admitted, has the credentials to back it up. In any case, he hadn't heard this new album by the Pop at the time he made it, but he might as well have. This is a thin, constipated, humorless record by a bunch of L.A. New Wave poseurs that proves nothing beyond the obvious: namely, David Bowie and Roxy Music are bad influences on far too much of current rock-and-roll. S.S.

**BILLY PRESTON: Late at Night.** Billy Preston (vocals, piano, synthesizer, other instruments); vocal and instrumental accompaniment. **Give It Up, Hot; Late at Night; All I Wanted Was You; I Come to Rest in You; Lonely Lady;** and three others. **MORRISON M7-925R1 $7.98, © 8T-925R1 $7.98, © CA-925R1 $7.98.**

Performance: **Vigorous**

Recording: **Satisfactory**

There was a time when Preston was regarded as a sort of baby Ray Charles, upholding the tradition of soul music in all its glorious, gospelish manifestations. But in recent years Preston has struck out in a more generalized pop-funk direction, producing albums that are pleasantly vigorous but less distinctive than his earlier work. His latest album is cut from this somewhat uneven cloth.

With admirable vitality, Preston dips into a number of musical pools without touching bottom in any of them. On Give It Up, Hot, the rather tepid opener, he leans on a disco beat, meshing it with group shouts and a modified rockish instrumental backing. Throughout this set, he fluctuates between patterned disco-isms and funk clichés, though some of his old sparkle shines through on You, which has an engagingly bouncing beat, and on Come to Rest in You, where he slips into his familiar Charles-derived style. Then there is With You I'm Born Again, in which Preston joins with Syreeta Wright to project a tenderness and sincerity that too frequently seem to be lacking elsewhere. These three selections showcase Preston at his best, but the long intervals of triviality detract from the overall impact of this album. P.G.

**BONNIE RAITT: The Glow.** Bonnie Raitt (vocals, slide guitar); Rick Marotta (drums); Danny Kortchmar, Waddy Wachtel (guitarists); Bob Glaub (bass); other musicians. **I Thank You; Your Good Thing (Is About to End); Standin' by the Same Old Love; Bye Bye Baby; Wild for You Baby; Four others.** WARNER BROS. HS 3369 $8.98, © 925R1 $7.98, @ 8T-925R1 $7.98, © CA-925R1 $7.98.

Performance: **Misdirected**

Recording: **Very good**

Imagine my disappointment. Bonnie Raitt, with that beautiful salty voice and that stylish slide guitar and those dimples, is one of my all-time favorites. Several times I have voted her the one person I would drop whatever (or, as Burt Reynolds would say, whomever) I was doing and run off with. And it's been a long time between albums. Imagine my excitement. But "The Glow" sounds more like "The Glare"; mostly it is thin. The lack of humor and realism in their stuff is staggering. When I listen to them, I think—come back, Curved Air, all is forgiven. "Cause it's just like hippy music."

The preceding statement (which I endorse) came from the mouth of Nick Lowe, who, it must be admitted, has the credentials to back it up. In any case, he hadn't heard this new album by the Pop at the time he made it, but he might as well have. This is a thin, constipated, humorless record by a bunch of L.A. New Wave poseurs that proves nothing beyond the obvious: namely, David Bowie and Roxy Music are bad influences on far too much of current rock-and-roll. S.S.
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wanting to dance apparently has gotten through to non-disco types like Bonnie and the-producer. The title track, an album with a beat for the feet has the right voice and backing (even though it's the L.A. back-up clique), but it stops surprisingly short of having the tunes. And I think including a mediocre soft-core jazz thing (the title tune) and Jackson Browne's Sleep's Dark and Silent Ground won't be enough to placate Raitt's diehard fans, many of whom might make a pass at dancing, or even roller skating, but basically want her to sing more John Prine songs and more songs like Paul Siebel's Louise and, in general, demand the kind of variety she had on her last album. Bonnie's voice, of course, is as wonderful as ever, and a couple of slide guitar breaks by her give you something special to listen for in a couple of duet songs, but there are just too many dull songs.

N.C.

JERRY REED: Live! Jerry Reed (vocals, guitar); Kenny Penny, Grady Martin (guitars); Buddy Spicher (fiddle, mandolin); Richard Shook (bass); Paul Cook (drums); other musicians. It's Gotta Come Out; (Who Was the Man Who Put) The Line in Gasoline; Hot Stuff; Guitar Man; East Bound and Down; and seven others. RCA AHL1-3453 $7.98, @ AHSL-3453 $7.98, @ AKH1-3453 $7.98. Performance: Lively Recording: Good remote

Recorded at the Exit/In, Nashville's premier big-name live-music place nowadays, this is the kind of live album you wish they all were. It is musically varied, and it is warm, friendly, and spontaneous. It captures something of the improvisational spirit and showmanship of the live show. ("I'll have you throwing babies up in the air," the modest Jerry is given to saying), only this show is fleshed out with some of Nashville's best pickers as sidemen. Reed is generous in sharing the spotlight, too, with such musicians as Buddy Spicher and Grady Martin. It's a good album, and it's the right one to give you a sense of what Reed is all about. And here's a couple of slide guitar breaks by her give you something special to listen for in a couple of duet songs, but there are just too many dull songs.

N.C.

SLY STONE: Ten Years Too Soon. Sly and the Family Stone (vocals and instruments); other musicians. Remember Who You Are; Back on the Right Track; If It's Not Addin' Up ...; The Same Thing (Makes You Laugh, Makes You Cry); and four others. WARNER BROS. BK3 3303 $7.98, @ MS 3303 $7.98, @ MS 3303 $7.98. Performance: Nice Recording: Good

"Ten Years Too Soon." In case you hadn't heard, is the long awaited (by some) disco remix of classic tracks by Sly and the Stoned. It's also Sly's first disco album that proves that every rotten thing people say about disco and its practitioners is absolutely true.

What they've done here, sadly, is what you would expect. The original rhythm tracks have been scurried (too funky, no doubt) and the instrumental breaks have been taped-looped and extended in ways that make no logical sense regardless of whether you're dancing or not, and the rest has been overlaid with the usual electronic outer-space effects, cliché bass lines, and drumming that recalls a paperback novel being wielded by a wedding to-and-fro. Heartbreakingly beautiful songs like Everyday People (which in the original were easily danceable for anyone not confined to a wheelchair) are now appallingly baroque and stiff, while the wit and sass of such as Dance to the Music are reduced to mere dud songs, but there are just too many dud songs. Sure, there was a certain twisted logic to the project: Sly's rhythmic innovations altered the course of black music forever, and his influence can be heard in the work of every funk merchant since, from Stevie Wonder to George Clinton. And there are precedents: overburdened pop stars Buddy Holly and Slim Hendrix tapes, and aural with a scholar's attention to period style. But never in memory has the work of any pop auteur been so incredibly brutalized, stripped of all human qualities, and rendered impotent. Sly's grand plan is not to get you dancing up as much as he wanted to get you dancing or singing along. For all that "Ten Years Too Soon" tells you about
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his work, he might as well have been the monkey attached to some ghastly robotic organ grinder.

Meanwhile, if all the above has made you wonder if perhaps Sly has jettisoned the old to explain that he's merely switched labels. His debut album for Warner Brothers is "Back on the Right Track," and it is, in fact, a neat bit of work—not as good as the stuff that made his reputation, to be sure, but compared with "Ten Years Too Soon" this pleasant if soft-spoken story-song seems like a work of genius. It's almost a shock, actually, to hear such minimally produced, genteel, early-Seventies r-&-b again, as if it were the last echo from some lost continent. Déjà vu aside, however, Sly's new tunes are preachy without being obnoxious (Remember Who You Are and It Takes All Kings being particularly nice in that regard), funny (the scatting on Who's to Say), and most attractively textured. How ears accustomed to the slick synthetic funk of, say, the Commodores will take to all this is anybody's guess, of course. My gut feeling is that if Sly were to take this show on the road he might surprise a lot of people disposed to write him off as a burn-out. S.S.

RECORDING OF SPECIAL MERIT

SWEET INSPIRATIONS: Hot Butterfly. Sweet Inspirations (vocals); instrumental accompaniment: Hot Fun; Face to Face; Hot Butterfly; Love Is on the Way; Holding Back; and three others. RSO RS-1-3058 $7.98, © 8T-1-3058 $7.98, © CT-1-3058 $7.98.

Performance: Sassy
Recording: Good

There's a strange sort of irony in the current careers of Cissy Houston (whose latest album is reviewed elsewhere in this issue) and the group called the Sweet Inspirations, which she once served as lead singer. While Houston has struck out on her own to become a disco singer, the Sweet Inspirations, with some personnel changes, have pasted a new more basic gospel/r-&-b orientation (they were back-up singers for Aretha Franklin when she was "Queen of Soul"). It is, quite likely, their mastery of these traditional gospel/r-&-b vocal modes that has led them to be picked up by the Bee Gees, today's reigning disco kings, whose popular style was originally shaped by some of the old Atlantic r-&-b producers who helped lead the soul disco kings, whose popular style was originally shaped by some of the old Atlantic r-&-b producers who helped lead the soul movement with an identifiable personal style. The songs on Verlaine's solo debut are a little less angst-ridden than his work with Television; the lyrics are still obscure but occasionally funny in a drugged-out sort of way. Yet, for all their post-hippy pretensions (not for nothing did this boy hang out with Patti Smith), these songs have a hypnotic, icy beauty, bona-fide rock-and-roll kineticism, and even, if you listen hard enough, actual hooks. Abetted by some of his New Wave confreres as well as some solid New York studio professionals, Verlaine has put together an immensely attractive set. Though it is more accessible than what he's given us in the past, it still contains some ecstatic if out-of-body solo flights. Definitely worth a listen. S.S.
ASHFORD & SIMPSON: Stay Free. Nickolas Ashford (vocals); Valerie Simpson (vocals, piano); instrumental accompaniment. Found a Cure; Stay Free; Nobody Knows: Crazy; and three others. WARNER BROS. HS 3357 $8.98, W 8 3357 $8.98, W 5 3357 $8.98.

Performance: At low tide
Recording: Satisfactory

What the world needs now is definitely not another disco record, yet that is precisely what Nick Ashford and Valerie Simpson have decided to give us in this autumn of our musical discontent. Disdaining their usual close attention to lyric content and the sensual energy generated when they rub their voices against each other, the pair has come up with a run-of-the-mill album despite their use of a back-up group of such top session musicians as the Brecker Brothers, Eric Gale, and Ralph MacDonald.

If there is any saving grace to be found here, it is on the last three selections, particularly Finally Got to Me, where a slight inner shift in the beat brings a bit of genuine heat to this woefully contrived album. Crazy is passable Ashford and Simpson, though devoid of the passionate thrust that might impel one to take them seriously, and Follow Your Heart, the slow closing track, disappears into the sunset with a thud. It is painful to have to say goodbye to these singers, the Dreams are limited. There isn't much range to their voices; the lead vocals usually sound strained and uncomfortable, and even their emotional flights into falsetto fail to help. But the real problem is that they lack inspiration as songwriters. The beat is on the slow side of disco, melodies and arrangements are virtually interchangeable, and the basic lyric formula is to repeat banal lines ("You are my one and only, yes you are") endlessly. Surely Brooklyn deserves better dreams than these.

CERRONE: Cerrone V. Cerrone (vocals and instrumental); vocal and instrumental accompaniment. Rock Me; Angelina; Not Too Shabby; Living on Love. ATLANTIC SD 19250 $7.98, TP 19250 $7.98, CS 19250 $7.98.

Performance: Mushy
Recording: Top-drawer

Changing his lyrics from "get down with me and dance" to "rock me with your love" and hiring some rock musicians (especially guitarists) have certainly toughened up Cerrone's act. Borrowing from Donna Summer's Hot Stuff for the opening riff on his first cut, Rock Me, doesn't hurt either. But there's still enough "oo-la-la-la" crooning and ricky-tick percussion to turn most of "Cerrone V" into an only slightly rougher version of the disco mush we got on "Cerrone I" through "IV." The French writer/singer/producer is still laying down tons of sound. Angelina drowns in wailing voices and synthesized waves. Call Me Tonight shimmers with electronic silli-ness and Abba-like chords; it's obvious and boring, though it is helped by a taut vocal performance from a lady known simply as M. Aller. Things go better when they get simpler. Not Too Shabby is positively refreshing. It's Cerrone in blackface, and the arrangement is suitably elegant/funky. The closing song, Living on Love, never gets anywhere, but at least you can hear what's going on en route: singers sing and musicians play (especially Cerrone himself on percussion) unhindered by gimmicks. This is the album's best shot, a good, fast dance number.

CHER: Prisoner. Cher (vocals); vocal and instrumental accompaniment. Prisoner; Shoppin'; Boys & Girls; Holy Smoke!; and four others. CASABLANCA NBLP 7165 $7.98, NBL8 7165 $7.98, NBL5 7165 $7.98.

Performance: Trying
Recording: Fine

Like many other trend followers, Cher is trying to toughen up her act. Aside from the title song, which is even more tedious than Take Me Home, her last disco hit, and a self-serving Vegas opener called Outrageous ("I'm gonna wear what I will/And still some"), the selections here show a big effort to expand Cher's limited range into a rock style far more energetic than she ever attempted back when she was half of Sonny and Cher. Boys & Girls, for instance, is hyper dance material—and also a rocker with electric guitars, staccato lyrics, and a hundred-mile-an-hour piano. Unfortunately, it doesn't work. As in the more traditional disco songs (Continued on page 138)
Lyrics and Lyricists

Sammy ("And Then I Wrote") Cahn

Back in 1970, the Billy Rose Foundation and the 92nd Street YM-YWHA in New York began their joint sponsorship of a series in which the great lyricists of Broadway perform, with a little help from their friends, and reminisce about their most famous creations. The "Lyrics and Lyricists" series has been a great success, and a couple of years ago the producer, Maurice Levine, released edited recordings of three of the "Evenings with ..." on Laureate, a label formed especially for that purpose. That first volume, devoted to Johnny Mercer, Alan Jay Lerner, and Sheldon Harnick (reviewed here in March 1978), has now been followed by an equally entertaining second one featuring Sammy Cahn, Kander and Ebb, and Jerry Herman.

Aspiring lyricists may not learn much about the craft from "An Evening with Jerry Herman," but they will spend a pleasant hour in the company of the relaxed personality who wrote all those hit songs for Hello, Dolly—and then more or less wrote them again for Mame. (Herman also, of course, writes his own music, which must make life easier when a word won't fit; he can always change the tune instead.) Some of the most enjoyable moments in the program, however, belong neither to Dolly nor to Mame but to another indomitable female, the lead character of Dear World, Herman's musical version of The Madwoman of Chaillot, when the gutsy Lisa Kirk sings the touching number "And I Was Beautiful." Although Ebb claims not to be able to sing at all, he belts out the last-named in a style most self-confident of the personalities on these discs. His act is a polished one, but then Ebb has been getting his "and then I wrote" routine together for years, performing it in New York, London, Los Angeles, and even as a TV special before his Y appearance in April 1972. Cahn offers anecdotes (with effective punch lines) about his experiences with a long list of composers, including Saul Chaplin, Jule Styne, James Van Heusen, and Gene de Paul (for whom he supplied the deft lyrics of such stage successes as High Button Shoes and the movies The Tender Trap and Three Coins in the Fountain).

The winner of four Academy Awards (and thirty Oscar nominations) is also winning enough, in his own immodest way, as he tells how "the Hungarian in residence" at one Hollywood studio after another called upon him to supply lyrics on order. (Asked "Which comes first, the words or the music?" he replies, "The phone call.") He also sings a few of his myriad hits, with highly professional help from Bobbi Baird, Shirley Leemon, and Jon Peck. A high point is when Baird, Leemon, and Peck turn down the house with their imitation of the Andrews Sisters mewing Bei Mir Bist Du Schön, the Sholom Secunda Yiddish favorite for which Cahn wrote the best-selling English adaptation.

The stars who wrote (or had ghost-written) the notes for these discs—Carol Channing for Jerry Herman, Liza Minnelli for Ebb and Kander, Frank Sinatra for Sammy Cahn—did not actually attend the evenings they describe, but they turn in highly efficacious as well as highly informative portraits of the wordsmiths they adore. The whole thing comes in a handsome box, and there are photographs of celebrities thronging the dressing rooms backstage at the Y to congratulate the lyricists. All in all, this is a more diverting set of discs than many of the original-cast recordings documenting the work of these verbal craftsmen. —Paul Kresh

LYRICS AND LYRICISTS, VOLUME 2.

- An Evening with Sammy Cahn. Sammy Cahn, Bobbi Baird, Shirley Leemon, Jon Peck (vocals); Richard Leonard (piano). Call Me Irresponsible; Shake Your Head from Side to Side; Rhythm Is Our Business; Please Be Kind; I've Heard That Song Before; Five Minutes More; I'll Walk Alone; It's Been a Long, Long Time; Guess I'll Hang My Tears Out to Dry; The Christmas Waltz; Teach Me Tonight; Be My Love; Bei Mir Bist Du Schön; A Quiet Thing; My Coloring Book; Ring Them Bells; Life Is; Cabaret; A Quiet Thing; Money, Money, Money; Maybe This Time; Tomorrow Morning; Please Stay; All That Jazz; Roxie; Yes; An Evening with Jerry Herman. Jerry Herman, Lisa Kirk, Joe Maselli, Carol Dorian (vocals); Jerry Herman (piano). Mame; Shalom; Just Leave Everything to Me; Put On Your Sunday Clothes; Ribbons Down My Back; Before the Parade Passes By; It Only Takes a Moment; Medley from Mame (five songs); Bosom Buddies: If He Walked Into My Life; I Don't Want to Know; And I Was Beautiful; Movies Were Movies; I Won't Send Roses; Time Heals Everything; Tap Your Troubles Away; Hello, Dolly! Laureate LL-604/6 three discs $26.95 (from Laureate Records, P.O. Box 1275, Radio City Station, New York, N.Y. 10019).
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here (yes, disco's old enough now to have traditions) such as Mirror Image, Hell on Wheels (her trendy roller-disco effort), and Holy Smoke!, all of which show the same rock influence, the voice that the ambitious arrangement is built around just doesn't have the range or texture to make the necessary impact.

There's a lot more grit to Cher's singing on this album than I've heard from her before, but her vocals still get merely loud rather than big when she pushes, and she still annoyingly slides down at the end of virtually every phrase. The problem is clear when you compare the other tracks here with the more gently rocking Holding Out for Love. This one has a beautifully simple arrangement by Tom Snow, using just electric keyboard and bass, that's at once musical, personal, and honest. Singing it, Cher stays comfortably within a range she can handle, and the result is by far the best cut on the album. Give her credit for trying; everything on "Prisoner" shows care and hard work. But the relatively interesting results suggest that a lot of that work was misdirected.

RECORDING OF SPECIAL MERIT
THE DUNCAN SISTERS. The Duncan Sisters (vocals); instrumental arrangement. Fire Island; They're Playing Our Song; Open Up Your Heart; Taint Nobody's Business If I Do; and four others. INFINITY INF 9014 $7.98, © INFT 9014 $7.98, © INFC 9014 $7.98.
Performance: Terrific
Recording: Also terrific

These days it takes musicians of supreme confidence to put together a dance album with such a wide range of music. Dante's Inferno has reached way back to Fats Waller's Ain't Misbehavin', then to Barry Manilow's newer oldie Could It Be Magic and Melanie's Brand New Key, and finally to Broadway's current They're Playing Our Song. They also include a brand-new song, a solid disco hymn to Fire Island. Yet the three singers, headed by producer/performer Ron Dante, make it all their own.

Two factors make it work so well. First, the lush arrangements do not steamroller the songs. They simply reinterpret the material from a disco point of view. The rhythm is disco, but the lyrics are never crammed into straitjackets and a lot of the original feel of the songs is preserved. They're Playing Our Song, in fact, sounds better to me here than in its original version; this may just possibly be the hit recording the song has been waiting for. Ain't Misbehavin', the best thing in the album, is my candidate for disco hit. With just a touch of boogie, a touch of wit, and a good feeling for the lyrics, it's valid musical reinterpretation.

The second reason for the success of the album is that it's fun. The tempos are up, the feeling is happy, and the musicians clearly enjoy making music. The gospel-strong, sweet-soul, swell-voiced treatment of Open Up Your Heart reveals the trio's enormous vocal resources. When they let 'er rip, as in the fine disco finale to this song, their energy is contagious. A winner!

E.B.

RECORDING OF SPECIAL MERIT
MARY WILSON. Mary Wilson (vocals); vocal and instrumental accompaniment. Red Hot; I've Got What You Need; You Make Me Feel So Good; Pick Up the Pieces; and three others. MOTOWN M7-927R1 $7.98.
Performance: Disappointing
Recording: Satisfactory

After eighteen years, Mary Wilson, the only original member of the Supremes to have remained with the group through all its fluctuations in personnel and popularity, has finally released a record of her very own. I, for one, have wondered what she might sound like alone ever since the mid-Sixties, when she, Diana Ross, and Florence Ballard (the two other original Supremes) became the pride of Motown, helping the label cross over into the recording mainstream. Wilson was never promoted to lead singer, not even during the difficult years after Diana Ross left at the end of 1969.

Since this record has been so long awaited, it is a shame it's not better. The songs (by Frank Busey and John Duarte) are lively, tuneful, and danceable, but hardly memorable. Wilson throws herself into them, delivering the banal lyrics with a gusto suggesting that she knows this might be, at last, her big chance. The problem is that she doesn't seem to have that special, intangible something—a sound, a manner—to strike the spark of true excitement that would set her apart. Furthermore, her voice, which sounded so strong and fine in the group, seems a bit thin, even worn...
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Making Good Sound Better
Mike Nock: Sinfully Musical

You might remember New Zealand-born pianist Mike Nock from Fourth Way, the group he formed in 1968, or from his album "Almanac" (Improvising Artists 37.38.51), which sounded as contemporary in 1977, when it was released, as it must have sounded advanced in 1967, when it was recorded. No? You are not familiar with Mike Nock? Brace yourself for an experience. The man is sinfully musical, and judging by his two new releases—"In Out and Around" (Timeless/Muse) and "Climbing" (Tomato), recorded in 1978 and 1979, respectively—his well of ideas is far from running dry.

Nock produces two very distinct sounds on these albums, the Timeless/Muse set featuring an acoustic quartet, the Tomato (can Cauliflower Records be far behind?) a quintet that is three-fifths electrified and decidedly fusion-oriented. Though fusion music of the mind-numbing Herbie Hancock/Bob James/Stanley Clarke variety darkens my turntable only when my profession demands that I lend it an ear, there are players in whose hands such hybrids become quite palatable. Nock is one of them. On "Climbing" he uses his keyboards frugally rather than like some electronic spendthrift groping for the green, and he has obviously given some thought to each track, which is refreshing at a time when many albums consist of one juicy carrot track and a lot of dry-stick filler. John Abercrombie (guitar),playing plugged-in guitar and mandolin with equal good taste. Trumpeter Tom Harrell has not been spoiled by his association with the new, formula-ridden Horace Silver, and the rhythm section moves the way a rhythm section should.

I obviously like "Climbing," but with all due respect to Messrs. Oberheim and Moog, "In Out and Around" is the pick of this crop. The drummer is the same, Al Foster, but his rhythm-section partner here is Czech bassist George Mraz, a wonderful player who has developed magnificently since coming to this country some ten years ago. Mraz and Foster are a splendid team, which may to some extent account for the extraordinary performances given here by superstar session man Mike Brecker. I have heard this half of the Brecker Brothers on many occasions, but he's never sounded as inspired as he does here. The very first track, Break Time, is worth the price of the whole album; it's a brisk Nock composition which this fine quartet imbues with all the essentials of good jazz. Once you catch your breath, I think you will find the rest of the album a fulfillment of the promise inherent in Break Time. It's nice to know that this kind of music, au courant but ever so rooted, is being played by the man who stepped into the rock-fusion arena before Miles Davis as much as sipped his "Bitches' Brew." —Chris Albertson

MIKE NOCK: Climbing. Mike Nock (piano, Fender Rhodes, Oberheim four-voice synthesizer, Minimoog); Tom Harrell (trumpet, flugelhorn); John Abercrombie (electric guitar, electric mandolin); David Friesen (acoustic bass); Al Foster (drums). Catablanca; Mossaflo; Blue Monastery; Eye of the Rainbow; Speak to the Golden Child; Climbing; Song of Brazil. Tomato TOM-8009 $7.98

MIKE NOCK: In Out and Around. Mike Nock (piano); Mike Brecker (tenor saxophone); George Mraz (bass); Al Foster (drums). Break Time; Dark Light; Shadows of Forgotten Love; The Gift; Hodrien's Wall; In Out and Around. Timeless/Muse TF 313 $7.98

at the edges (perhaps from all those years of club performances) exposed alone as it is here. Wilson does have enough oomph and pizzazz to satisfy uncritical listeners who merely want to have some fun, however. The best tracks, Red Hot and Midnight Dancer, sparkle with humor as Wilson prances through them, squealing suggestively. But there's little here to suggest the possibility of a broader talent, of a star on the rise.

RECOMMENDED DISCO HITS

- DELORES HALL. Capitol ST-11997 $7.98, © 8XT-11997 $7.98, © 4XT-11997 $7.98
- JANICE McLEAN: Smack Dab in the Middle. Warner/RFC DRC 58893 disco disc $3.98.
- RUFUS & CHAKA: Masterjam. MCA MCA-5103 $7.98, © MCA-5103 $7.98, © MC5-5103 $7.98.
- USA/EUROPEAN CONNECTION. Marlin/TK 2231 $7.98, © 2231 $7.98, © 2231 $7.98.

(List compiled by John Harrison.)

JAZZ

RECORDING OF SPECIAL MERIT

TOSHIKO AKIYOSHI TRIO: Dedications. Toshiko Akiyoshi (piano); Bob Daugherty, Andrew Simpkins (bass); Jimmy Smith, Peter Donald (drums). Solar: Israel; Two Bass Hit; Swinging Till the Girls Come Home; and three others. INNER CITY IC 6046 $7.98.

Performance: Dedicated Recording: Very good

Besides being one of the most skillful and imaginative big-band arrangers on the scene today, as is made abundantly clear by each new release of the Akiyoshi/Tabackin band, Toshiko Akiyoshi continues to prove her worth as a pianist. "Dedications" was recorded almost three years ago but until now has been available only in Japan. It features seven compositions by musicians who have had an influence on Ms. Akiyoshi's musical thinking, including Miles Davis, John Lewis, J. J. Johnson, Dave Brubeck (whose music had not impressed her at first), and, of course, Bud Powell, her prime influence. That makes for a varied menu, and Toshiko's loving treatments make it hard to single out favorites, but I was particularly enchanted by her slower than usual, almost Monkish version of Oscar Pettiford's Swinging Till the Girls Come Home. It is amazing how effective a change of tempo can be. A different rhythm team supports Toshiko on each side here; both perform admirably. "Dedications" is a thoroughly enjoyable, well-conceived, and well-executed album.

C.A.

RECORDING OF SPECIAL MERIT

JOANNE BRACKEEN: Keyed In. Joanne Brackeen (piano); Eddie Gomez (bass); Jack DeJohnette (drums). The Grant; Twin Dreams: Again and Always; El Mayorazgo; and three others. TAPPAN ZEE JC 36075 $7.98, © JCA 36075 $7.98, © JCT 36075 $7.98.

Performance: Superb Recording: Very good

Pianist/arranger Bob James rarely feeds the mind with the music he presents on his Columbia-distributed Tappan Zee label, so it is a pleasant surprise to find this set of exquisite trio performances among his recent releases. "Keyed In" is not pianist Joanne Brackeen's first album as a leader, but it stands a good chance of reaching more people than her releases on Choice and Timeless/Muse did, which makes it all the more fortunate that it splendidly represents her talent.

Brackeen has an excellent technique and the kind of musical imagination required to
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STORYVILLE RECORDS recently released nine albums of recordings made between 1939 and 1976, both here and in Europe, that represent most of the jazz styles prominent in that period. Some are reissues of sides long out of print, others first U.S. releases, and the package contains some delights and surprises as well as more routine stuff.

"The Harmonica Blues," like several other albums in the series, derives from European sessions, particularly in Scandinavia, where American jazzmen have often been better appreciated than at home. The Sonny Terry cuts date from two 1971 Copenhagen sessions; "Sonny Boy Williamson" (Rice Miller) and Hammie Nixon were recorded there in 1963 and 1964, respectively. Two selections by Doctor Ross were made in London on an unspecified date.

All the musicians here are accomplished, but since I happen to prefer raw blues my favorite tracks are Ross' Mother Before This Time Next Year and Going Down Slow. There are two takes of Down and Out by Miller that differ significantly in tempo, and on Early One Morning he's joined by Memphis Slim on piano and vocals. (Miller was a terrific harmonica player and singer who made most of his best recordings for Chess in Chicago during the Fifties and very early Sixties. A bit of an odd bird, he took his stage name from that of an earlier performer who began recording for Victor's Bluebird label in the late Thirties and was murdered in Chicago in 1948. Miller first called himself "Sonny Boy Williamson II," then dropped the "II" and maintained that he was "the original Sonny Boy.") Hammie Nixon is joined on his tracks by veteran guitarist and singer Sleepy John Estes, whom he's partnered for most of his career, and Sonny Terry is similarly paired with his alter ego, guitarist Brownie McGhee.

McGhee and Terry have their own album in the series, recorded at the same 1971 Copenhagen sessions. Their team work on it is as successful as it's been since they first appeared together in 1938. Terry is a master of the harmonica, and McGhee can play and shout with the best of them. There are moments where the two are really cooking, but, though heard together, it is always delightful, it is rarely surprising or more. Perhaps they're recording too much.

"Boogie Woogie Trio" features three of the most famous practitioners of that style: Albert Ammons, Pete Johnson, and Meade "Lux" Lewis. The recordings range from 1939 airchecks, through a 1948 California concert take by Johnson, to some detour early-Fifties transcriptions by Lewis when he was the resident pianist at the old Hangover Club in San Francisco. This album did surprise me, and on two counts: I'd never before heard either Johnson or Ammons play so well, and I'd never heard Lewis play so halfheartedly. Lewis was the most gifted of the boogie-men in terms of the conception and construction of a piece, but by the time these recordings were made the boogie craze was over and he was playing more as a routine entertainer than as an artist.

Shifts of fashion in piano style do not, fortunately, bother Ralph Sutton at all. He is usually characterized as "mainstream," which just means that he has refused to join any ideological camp, playing whatever feels good to him. The new Storyville release presents him playing with the great clarinetist Edmond Hall in 1954 airchecks from Hangover Club broadcasts. Like Sutton's more recent recordings, this album shows that he listened as much to Earl Hines as to the striders; then as now, he is a warm, frisky, and charming musician who can deliver an uppercut if the occasion demands it. Hall was a remarkable player who combined fluidity and bite with smooth assurance, and he and Sutton have a marvelous time in these sets. Of special interest is Fats Waller's rarely recorded Up Jumped You with Love and a tune called Oh, Baby from the 1926 musical Rain or Shine.

The album of cornetist Wild Bill Davison, mostly recorded with Eddie Condon's All Stars in New York in 1961, is about what you'd expect from the two-listed Condon mob. There's an awful lot of wallops in these sessions, as in any date that included Condon (he was one of the best jazz rhythm players who ever lived), but, though Davison had his moments, he also had an irritating habit of substituting antics for ideas. All his life he had a nervous energy that he never learned to control or channel, so what should have come out as passion too often came off as a noisy prank.

Trumpeter Harry "Sweets" Edison and tenor saxophonist Eddie "Lockjaw" Davis both had stellar years with Count Basie. Their Storyville album was recorded in Denmark during their 1976 European tour; the back-up personnel are from a local quartet headed by pianist Kenny Drew and trombonist John Darville. All I can say about the music they
make together is that it's mighty, mighty tasty. Some thirty years ago, saxophonists Warne Marsh and Lee Konitz were members of the Lennie Tristano Sextet. They're reunited on a Storyville album recorded live at Copenhagen's Cafe Montmartre on three successive nights in December 1975. Both men are in fine form, though to me their style is more intellectual than emotive. But there are some very interesting moments here, especially the extended opening dialogue between Konitz's alto and Marsh's tenor on You Stepped Out of a Dream. Pianist Joe Sample is well known as a member of the Crusaders and the L.A. Express and also as a session man. His album "Fancy Dance" was cut in Sweden around 1971 with bassist Red Mitchell and drummer J. C. Moses. Sample is an energetic player with a suture of technique, and he goes to some pains here to avoid anything resembling a melody. It becomes a rather tiresome display of pyrotechnics.

The Duke Ellington album mostly contains his familiar flag-wavers, but there are two special treats. One is his extended piano solo on Kinda Dukish; like Count Basie, Ellington was too busy running his orchestra to have much time for solos. The other treat is the excellent sound quality. The Ellington cuts were recorded in 1962 for the soundtrack of a Goodyear Tire Co. film, and the music fairly made together is that it's mighty, mighty tasty. Some thirty years ago, saxophonists Warne Marsh and Lee Konitz were members of the Lennie Tristano Sextet. They're reunited on a Storyville album recorded live at Copenhagen's Cafe Montmartre on three successive nights in December 1975. Both men are in fine form, though to me their style is more intellectual than emotive. But there are some very interesting moments here, especially the extended opening dialogue between Konitz's alto and Marsh's tenor on You Stepped Out of a Dream. Pianist Joe Sample is well known as a member of the Crusaders and the L.A. Express and also as a session man. His album "Fancy Dance" was cut in Sweden around 1971 with bassist Red Mitchell and drummer J. C. Moses. Sample is an energetic player with a suture of technique, and he goes to some pains here to avoid anything resembling a melody. It becomes a rather tiresome display of pyrotechnics.

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STAN GETZ: Children of the World. Stan Getz (tenor saxophone, echo plex); orchestra, Lalo Schifrin cond. Don't Cry for Me Argentina; Rainy Afternoons; Hopscotch; Livin' It Up; Around the Day in Eighty Worlds; and five others. COLUMBIA JC 35992 $7.98.

Performance: Informal charm
Recording: Very good

If you heard Spanish pianist Tete Montoliu's disastrous recording with the late Ben Webster ("Did You Call?"). This set with tenor saxophonist George Coleman should be a pleasant surprise. Montoliu seemed lost in the company of the then sadly deteriorated Webster, but he sounds completely at home with bassist Eddie Gomez and drummer Jack DeJohnette. "Keyed In" is a first-rate jazz album by three dedicated players who very clearly enjoyed each other's musical company. And if Joanne Brackeen should ever give up performing jazz (and she definitely shouldn't), she will always have a future as a jazz composer, as the seven selections here abundantly attest.

C.A.

GEORGE COLEMAN/TETE MONTOLIU: Meditation. George Coleman (tenor saxophone), Tete Montoliu (piano). Lisa: Sophisticated Lady; Dynamic Duo; First Time Down; and two others. TIMELESS/MUSE T1 312 $7.98.

Performance: Informal charm
Recording: Good

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Stereo Review
EGBERTO GISMONTI: Solo (see Best of the Month, page 86)

RECORDING OF SPECIAL MERIT

SHELLY MANNE: French Concert. Shelly Manne (drums); Lee Konitz (alto saxophone); Mike Wofford (piano); Chuck Domanico (bass). What’s New?; Body and Soul; Take the Coltrane; and three others. GALAXY GXY-5124 $7.98.

Performance: Laudable
Recording: Fine remote

This excellent Shelly Manne quartet was part of a Newport Festival package presented at Saint-Quentin-en-Yvelines in 1977 on the fifty-ninth anniversary of the armistice that ended World War I. I don’t think the concert and the armistice were in any way related, but listening to the pure, skillfully interwoven sounds of this group seems like a good way to celebrate the rebirth of a city that very nearly failed to survive that historic conflict.

The music in “French Concert” does not attempt to beat any new paths, nor is the album likely to be singled out by future historians, but the quartet—largely fueled by saxophonist Lee Konitz and pianist Mike Wofford—raises a fresh breeze even as it runs through the familiar material. Wofford is particularly effective on two trio numbers (Softly, as in a Morning Sunrise and Body and Soul) where he can stretch out and demonstrate how well he has absorbed the lessons of past keyboard masters.

DAVE MCKENNA/SCOTT HAMILTON/JAKE HANNA: No Bass Hit. Scott Hamilton (tenor saxophone); Dave McKenna (piano); Jake Hanna (drums). Long Ago and Far Away; Get Happy; Drum Boogie; If Dreams Come True; and four others. CONCORD JAZZ CJ-97 $7.98.

Performance: Fresh cream
Recording: Very good

It is hard to tell whether this is Dave McKenna’s album or one he shares equally with Scott Hamilton and Jake Hanna; the notes indicate the former, but all three players get the same billing. Actually, it matters little to us, for the album would be just as delightful however the credits read. If you are familiar with the previous directions of Messrs. McKenna, Hamilton, and Hanna, you should have a good idea of what to expect here: a thoroughly melodic, decidedly swinging session played in a mode that ricochets between swing and bop. At twenty-five, Hamilton is, of course, too young to have experienced the era that saw the blossoming of the full-throated, languid tenor style in which he plays, but his impressions are devilishly clever and not wholly imitative. They perfectly complement the work of McKenna and Hanna, both of whom, at around twice Hamilton’s age, can claim firsthand knowledge of swing and bop. Hamilton may be a bit over-

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recorded these days, but McKenna is certainly not. This is his first album since becoming a Concord Jazz contract artist, so we can expect a healthy flow of releases with him at the helm. Now that he may have suffered from temporary chops failure. The sound of the digital recording, done straight through in one take per side, without editing, is fresh, clean, and rewarding. J.V.

OREGON: Roots in the Sky. Oregon (instruments). June Bug; Sierra Leone; Orange-ton's Escape; Vessel; Hungry Heart; and four others. ELECTRA 6E-224 $7.98. © ECS-224 $7.98. © TCS-224 $7.98. Performance: Delicate weaves Recording: Very good

Despite successful individual excursions on ECM by some of its members—most notably Ralph Towner and Collin Walcott—Oregon continues to function and thrive as a unit. An offshoot of Paul Winter’s Consort, a group that laid the foundation for Oregon’s style, the quartet still moves ever so gently between calm, Mozaritan chamber music and Eastern Indian tabla d’haute, with a measure of polite jazz stirred in. It is “fusion” music, but played without the aid (or obstacle, depending on one’s viewpoint) of electronic devices. “Roots in the Sky” brings to ten the number of Oregon’s releases (mostly on Vanguard) that are currently available. Their sound has yet to wear thin. C.A.

DAVID SCHNITTER: Thundering. David Schnitter (tenor saxophone, vocals); Kenny Barron (piano); Ted Dunbar (guitar); Cecil McBee (bass); Billy Hart (drums); Guil- hermo Franco (congas, percussion, voice); Stardust; Caa Purange; There Goes the Ball Game; and three others. MUSE MR 5197 $6.98. Performance: Strong Recording: Good

In an Art Blakey review, I once singled out tenor saxophonist David Schnitter as someone we could expect to hear a great deal more from, so I am very pleased to see (and hear) that Muse keeps singling him out for recording. “Thundering” is Schnitter’s third album for the label as a leader, and he continues to impress me with his sonorously Rollinesque flat. Helm’s ideas are fine, but on this session tone and style. Yes, there is a bit of Coltrane here too, and I still don’t detect a distinct Schnitter style, but that doesn’t detract from the enjoyment of hearing this thirty-one-year-old player’s solid pro-like tenor in the excellent company of pianist Kenny Barron, bassist Cecil McBee, and drummer Billy Hart. Schnitter sings on There Goes the Ball Game (from the film New York, New York) and does an acceptable job, but I don’t think I should shelve the sax any time soon. C.A.

WEATHER REPORT: 8:30. Weather Report (instrumentals). Black Market; Scarlet Woman; Teen Town: A Remark You Made; Slang; In a Silent Way; Birdland; and six others. ARC/COLUMBIA PC2 36030 two discs $13.98. © PA2 36030 $13.98. © PT2 36030 $13.98. Performance: Good Recording: Good

This double-disc live set contains a goodly amount of skilled and appealing musicianship plus a certain amount of crowd-pleasing hambone nonsense. The music doesn’t herald a new world; it is simply worldly. Among the better cuts are Black Market and Jaco Pasto-rius’ bass feature, Slang. J.V.

RECORDING OF SPECIAL MERIT

BUSTER WILLIAMS: Heartbeat. Buster Williams (bass); Kenny Barron (piano); Billy Hart (drums), other musicians. Toko-Do; I Fall in Love Too Easily; Veronica; and three others. MUSE MR 5171 $6.98. Performance: Excellent Recording: Good

Buster Williams spent most of the Sixties backing up singers, graduating from Dakota Staton to Betty Carter, Sarah Vaughan, and Nancy Wilson. But before the decade was over, he had also worked with a number of top instrumental groups, including one led by Miles Davis, Art Blakey, and Herbie Hancock. More recently we have been hearing Williams as a member of an outstanding quartet led by fellow bassist Ron Carter, so if “Heartbeat” somewhat resembles the work of Carter’s group it is no coincidence. Two selections here—I Fall in Love Too Easily and Toko-Do—are, in fact, played by three-quarters of that splendid ensemble: Williams, pianist Kenny Barron, and drummer Ben Riley. Carter’s influence on Williams’ own playing is also in evidence, particularly on I Fall in Love Too Easily, which has him manipulating the hefty string bass as if it were a delicate Spanish guitar. The effect is stunning.

Although the liner notes are gobbledygook that seems to have been written for three-year-olds, don’t be discouraged by such lapses in production judgment. The album is adult fare, one of the finest releases of the year. That is not to say that “Heartbeat!” is without flaws: we could, for instance, have done without the contrived vocal of Suzanne Kle- war on Pygmy Lullaby. But that is a minor beef considering the sparkly nature of the whole. Also appearing on that track and on Shadows—a very beautiful Williams composition—are the sisters Gayle and Pat Dixon, who play violin and cello, respectively, and to fine advantage. Williams goes it alone for two and a half minutes of Veronica—Jaco Pasto-rius, eat your heart out! C.A.
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MARSHALL CHAPMAN, SUPERSTAR

Life, as Jimmy Carter observed in one of his sager moments, is unfair. He's probably right. In fact, just the other evening I had a dream of a better world, one in which oregano is discovered to be a cure for cancer, vast oil deposits are found beneath the South Bronx, the Dodgers are back in Brooklyn, a meteor has wiped out Studio 54 and all its denizens, and Marshall Chapman is a Big Star. When I awoke, I had to face brutal reality: none of that is true. I've managed to console myself, however, in the face of such rank injustice, with the thought that, barring something really calamitous—her getting run over by a bus or becoming a Moonie—Marshall Chapman is going to be a star.

If you're still with me at this point, you may have figured out that I really like Marshall Chapman. Of course, if you're a regular reader, you already knew that and are probably wondering why I am going on about her again at such length. No mystery, really: she was in town recently for two shows at the Bottom Line, and I fell in love all over again. And I was not alone. Ten friends of mine, whom I dragged there under duress, had exactly the same experience: everybody, male and female, either swooned for her, Gidget-style, lusted after her, or wanted to be her. Sometimes all three. Even a jaded, seen-it-all type like Ebet Roberts, who took the picture of Chapman that appears above and went to the first show on assignment without any expectations, got so carried away that she wound up sitting through the second one as a fan. "It was weird," she confided to me later. "I found myself staring at her and thinking, 'My God, she's really sexy.'"

"I sympathize with Ebet. In fact, I sympathize with everyone in the world except Marshall," Chapman herself would doubtless be convinced, as Marsh suggested of Patti Smith, walk on water, but I'm not afraid to be corny, and some of her love songs are really—I have to say it—rather sweet. Best of all, though, she knows how to work a stage. Strutting around clutching either a guitar or a bottle of Heinekens, she makes every move mean something in the way that Jagger used to before his act degenerated into arena-size overstatement. Bruce Springsteen excepted, I can't think of any current rocker who seems quite so much at home in front of an audience.

The Springsteen reference, by the way, is not gratuitous: in career terms she's in much the same place Bruce was in before "Born to Run," with a growing coterie of fans possessed by a missionary zeal to Spread the Word. Marshall herself would doubtless be uncomfortable with the comparison ("If I had a lot of Catholic guilt and hated my father I wouldn't take it out on an audience," she said after seeing Bruce in 1978), but the analogous impact of their performances makes it inescapable.

Given all this, why isn't Chapman already the biggest thing since sliced bread? A fair question. Partly, I'd guess, it's because her label, Epic, doesn't quite know what to make of her. They signed a progressive-country singer/songwriter and wound up with non-stop rockarama, so they're confused. Worse, none of her albums does her justice. All of her. They signed a progressive-country singer/songwriter and wound up with non-stop rockarama, so they're confused. Worse, none of her albums does her justice. Al Kooper's production of the second was at best eccentric, and the new one ("Marshall," Epic JE 36192) sounds, well, low-budget. Pete Drake may know how to record the Tennesseee Three, but he doesn't know squat about English-influenced guitar rock; until Epic puts Chapman in the hands of a Glyn Johns or a Jack Douglas, you really will have to hear her in person to understand my raving.

So by all means check out Marshall Chapman live if you get the chance. She may not be able to cure the common cold, solve the Middle East problem, or even, as Dave Marsh suggested of Patti Smith, walk on water, but I think you'll come away convinced, as I am, that she's the first really world-class female rocker. At the very least, you'll get yourself a terminal crush, and that's not a bad way to go even at today's club prices.
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Most manufacturers play "take away" when they design a product line. With every cost reduction, there's a quality loss. Onkyo takes a different approach. Each of the five models in the TX-MKII series of receivers represents an exceptional value for price. And vital performance features such as Onkyo's exclusive distortion-free, quartz or servo-locked FM tuning are built into each of the receivers, as is the sophisticated HTS™ (Human Touch Sensor) control. HTS™ senses your touch on the tuning knob and "unlocks" the station. You rough tune to another station, release the knob, and the HTS™ analog comparator circuits automatically find and precisely lock into the most distortion-free station setting.

And aside from the excellent signal-to-noise ratios at all inputs, the Onkyo TX-MKII series provides excellent value-to-dollar ratios at all power levels, starting with the top-of-the-line digital-readout TX-8500MKII rated at 160 watts per channel, with 0.05% total harmonic distortion, both channels driven into 8 ohms from 20 Hz to 20 kHz, to the modest TX-1500MKII at 17 watts per channel and 0.03% THD under the same conditions.

Don't step down in quality. Step up to Onkyo.

Artistry in Sound

CIRCLE NO. 48 ON READER SERVICE CARD
The Sound of Koss will spoil you for anything else.

Once you've experienced the life-like intensity of the Sound of Koss, you'll be spoiled for anything else. Because with Koss stereophones, your favorite recordings take on an incredible new dimension of clarity and realism that's unlike anything you've ever heard before.

KOSS PRO/4 TRIPLE A

The Pro/4 Triple A's extra large voice coil and oversized diaphragm deliver a smooth frequency response over the entire bandwidth of sound. Highs are brilliant, crisp and clean. And the bass pulsates with a rich, deep vibrance.

The Triple A's direct contour ear cushions provide a gentle, yet perfect seal that increases bass response to below audibility. And everything about the Triple A, including its dual suspension headband, is human engineered for long wearing comfort.

KOSS ESP/10

The ultimate Sound of Koss is the electrostatic ESP/10. It's specifically designed for those who want the most precise reproduction of stereophone sound. What you hear with the ESP/10 is near-zero distortion over all ten audible octaves. And what you experience is the most accurate excursion into sound that has ever been achieved.

The Koss ESP/10 is indeed the electrostatic stereophone that has it all: a patented energizer that features an automatic overload protector, semi-peak reading VU meters, and an outlet for an additional set of stereophones. Each a final touch of perfection for the ultimate Sound of Koss.

KOSS CM 530

Write us c/o Virginia Lamm, for our free full-color catalog on the Sound of Koss. And when you visit your audio dealer for a live demonstration of Koss stereophones, take an extra moment to hear the perfect pair. The computer maximized Koss CM 530 bookshelf speakers. Whether you place them horizontally or vertically on your bookshelf, the Koss CM 530's deliver perfect mirror image sound. And whether it's loudspeakers or stereophones, once you've experienced the Sound of Koss you'll be spoiled for anything else.