TO FULLY APPRECIATE PIONEER’S NEW DIRECT-DRIVE TURNTABLE, YOU HAVE TO TAKE APART THE COMPETITION.
WHEN YOU PUT IT ALL TOGETHER, YOU CAN'T BUY A BETTER TURNTABLE FOR UNDER $175.

A REMARKABLE DRIVE SYSTEM.
Obviously, all direct-drive turntables have an extremely accurate drive system. Each offers an immunity to fluctuations in line voltage, pitch control, and a built-in strobe unit to help you regulate the speed of the platter. But we believe the drive system of the PL-518 is the most accurate found on any turntable selling for under $175. Because it uses a brushless DC Servo motor, the PL-518 is the most accurate for its price range. It's nowhere near good enough for the 300 hertz. By using a glass fiber shell, resonance above 75 hertz is all but eliminated. Instead of suspending the motor, Pioneer has anchored it so vibration can't affect the music. Tests show plastic tends to resonate at frequencies between 75 and 300 hertz. By using a glass fiber shell, resonance above 75 hertz is all but eliminated. Instead of suspending the motor, Pioneer has anchored it so vibration can't affect the music.

A SOLID ARGUMENT FOR THE 2-PLY PARTICLE BOARD BASE.

The base on many turntables is nothing more than a hollow plastic shell. Or worse, sheet metal nearly hidden beneath imitation wood veneer. Both seem harmless, but they tend to vibrate and cause acoustic feedback when the volume is turned up. The base on the PL-518, however, is made of two solid blocks of compressed wood, each 20 millimeters thick. When the two are joined it not only gives the base greater density, the glue between the pieces acts to damp vibration. So when you're listening to a record, you won't hear the turntable.

STIFF PLASTIC LEGS MERELY SUPPORT MOST TURNTABLES, BUT PIONEER'S MASSIVE SPRING-MOUNTED RUBBER FEET ALSO REDUCE FEEDBACK.

Unlike the hollow plastic base, our solid 2-ply particle board base is far less susceptible to vibration. If it was all wood it would be much heavier, but absorb vibration and reduce acoustic feedback. So if you like to play your music loud but absorb vibration and reduce acoustic feedback. In fact, nothing vibrates on the tone arm with the exception of the stylus. So nothing comes through the tone arm but music.

THINKING ON OUR FEET

Instead of skinny screw-on plastic legs, Pioneer uses large shock mounted rubber feet that not only support the weight of the turntable, but absorb vibration and reduce acoustic feedback. So if you like to play your music loud but absorb vibration and reduce acoustic feedback. In fact, nothing vibrates on the tone arm with the exception of the stylus. So nothing comes through the tone arm but music.

FEATURES YOU MIGHT OTHERWISE OVERLOOK.

Besides the big things, the PL-518 has other less obvious advantages. Our platter mat, for example, is concave to compensate for warped records. The platter itself is larger than others in this price range, which means it stays at perfect speed with less strain on the motor. Even something like our spindle is special. It's 8 microns larger than most, so that the record is always perfectly centered. And instead of flimsy staples, we use sturdy aluminum screws to seal the base plate to the base. It's details like these as well as advanced technology that gives the PL-518 an incredibly high signal-to-noise ratio of 75 decibels. And an extremely low wow and flutter measurement of 0.03%. Performance figures you'd be hard pressed to find on any other turntable for this kind of money.

So if you want to get the most out of every piece of music, you should have the turntable that gets the most out of every part that goes into it. We bring it back alive.

CIRCLE NO. 1 ON READER SERVICE CARD

WHEN YOU PUT IT ALL TOGETHER, YOU CAN'T BUY A BETTER TURNTABLE FOR UNDER $175.
THE PL-518.
Empire's Blueprint for Better Listening...

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

The advantages of Empire are threefold:
1. Your records will last longer. Unlike other magnetic cartridges, Empire's moving iron design allows our diamond stylus to float free of its magnets and coils. This imposes much less weight on the record surface and insures longer record life.
2. You get better separation. The small, hollow iron armature we use allows for a tighter fit in its positioning among the poles.
3. Even the most minute movement is accurately reproduced to give you the space and depth of the original recording.

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

The end result is great listening. Audition one for yourself or write to our free brochure, "How To Get The Most Out Of Your Records." After you compare our performance specifications with those of your present cartridge, you'll find you can do better with an Empire.

Empire Scientific Corp., Garden City, New York 11530.

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<tr>
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<td>OUTPUT</td>
<td>@ 3.54 g / c</td>
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COVER: Design by Borys Patchowsky; photo by Don Hunstein for Columbia Records
Time and a bit of genius make the difference.

It wasn't easy to create the world's finest DC receiver. It took time. A great deal of it. For research. For development. For testing. And it also took a bit of genius — the kind of genius that Sansui engineers are world famous for. But we at Sansui were determined. And we succeeded. So now there is a patent pending on Sansui's unique new DC amplifier circuitry.

The Sansui G-6000 DC receiver, like Sansui's entire G-line of DC receivers, incorporates this unique technology. It delivers music reproduction so superb you will actually hear the difference.

With Sansui's DC amplifier circuitry you get better low frequency response. It extends all the way down to zero Hz (DC), from main-in. That's one reason it's called a DC receiver.

With Sansui's DC amplifier circuitry you get better high frequency response. It goes all the way up to 200,000Hz, from main-in. Just try to find another receiver with frequency response this wide.

With Sansui's DC amplifier circuitry you also get fuller and faster response to musical transients. This is measured in slew rate and rise time. And the slew rate and rise time figures of the Sansui G-6000 are far better than those of any competitive models.

And with Sansui's DC amplifier circuitry there is virtually no distortion. While eliminating the capacitors, we've solved the time delay problem that causes transient intermodulation distortion (TIM). And total harmonic distortion is a mere 0.03% at full rated power: 65 watts/channel, min RMS, both channels driven into 8 ohms from 20-20,000Hz.

The Sansui G-6000 DC receiver is much more than its extraordinary amplifier circuitry. It is also a superb FM section, with excellent sensitivity, selectivity and signal-to-noise ratio, virtually without distortion.

The G-6000 also gives you high-technology protection circuitry that keeps both your speakers and receiver safe, always. It offers perfectly positioned and highly accurate power, tuning and signal meters. And human engineering, for greatest ease-of-operation. The G-6000 is also elegantly styled with a beautiful simulated walnut grain finish.

Listen to the G-6000 or any of Sansui's full line of DC receivers at your franchised Sansui dealer today. You'll easily hear the difference that Sansui DC makes.

SANSUI ELECTRONICS CORP.
Woodside, New York 11377, Gardena, California 90247
SANSUI ELECTRIC CO., LTD., Tokyo, Japan
SANSUI AUDIO EUROPE S.A., Antwerp, Belgium
In Canada: Electronic Distributors
CIRCLE NO. 38 ON READER SERVICE CARD

The Sansui G-6000 DC Receiver
The Equipment

- A VIDEO DISC PLAYER will probably be on the market in the United States next year, according to Bernie Mitchell, president of U.S. Pioneer. Mitchell expects that the Philips/MCA group will be the first out with a player in 1979, immediately followed (in 1980) by a unit manufactured in Japan by Pioneer. The Pioneer machine will conform to the Philips/MCA system.

- IMPROVED TV-SOUND transmission facilities recently made available to broadcasters by American Telephone & Telegraph have extended the potential bandwidth of TV audio to 15,000 Hz. One expected result of this is the emergence of a whole new audio-component category, the audio-only high-fidelity TV tuner, the first of which (Pioneer's Model TVX-9500) has already appeared.

- TANDBERG DECKS capable of handling the new metal-alloy tapes will be ready for the American market as early as September, according to an announcement by the company. Both open-reel and cassette versions of the Tandberg decks will be set up for 3M's Metafine IV fine-metal tape. Metal-alloy tape, which has been under development by all the major tape manufacturers for several years, may well have an impact on home recording as great as that of Dolby-B noise-reduction systems and chromium-dioxide tape, which were introduced a decade ago. 3M has been ready to go into production for nearly a year, awaiting the availability of consumer hardware.

- VIDEO WAREHOUSE has added 300 feature films to its catalog of video cassettes, which now totals 366 movies available in all VTR formats. New titles include Cauldron of Blood with Boris Karloff, The Daring Game with Lloyd Bridges, Shark with Burt Reynolds, and Who Killed What's 'er Name? with Red Buttons. Prices start at $29.95. A free catalog can be obtained by writing to Video Warehouse, P.O. Box 275, Atlantic Highlands, N.J. 07716.

- CONCERNED ABOUT HEARING IMPAIRMENT, the Brooklyn Center for the Performing Arts at Brooklyn College has set a maximum permissible sound level for concerts. Before performing, electronically amplified musicians must agree not to exceed 105 dB, as measured at a distance of 10 feet from any loudspeaker, for a period of more than 1 minute. If they do, the Center reserves the right to "pull the plug"--and to fine the musicians $500 in the bargain. The Center's restriction is said to be the first such imposed in the U.S.

- LINEAR AMPLIFIERS (wide-band radio-frequency amplifiers) that can be used to boost the output of Citizens Band transmitters to illegal levels have become the subject of an outright ban by the FCC. In addition, linear amplifiers not capable of CB frequencies must meet certain design requirements meant to ensure that simple modifications cannot render them usable for CB. If it is successfully enforced, the FCC's action could result in some reduction of audiophile difficulties with radio-frequency interference.

- A PRIZE will go to the Stereo Review reader who suggests the best name for a new hi-fi manufacturing company. Robert Carver, founder of Phase Linear, recently sold his interest in that company, but instead of retiring he is starting a new company. Within a year he expects to have products on the market under a new brand name, and he is offering one of his first new products to the reader who submits the name he considers most acceptable (he has already ruled out Superphase). Send entries to Robert Carver, c/o Stereo Review, One Park Avenue, New York, N.Y. 10016.
The Music

- NEVILLE MARRINER has been named music director of the Minnesota Orchestra, along with Klaus Tennstedt as principal guest conductor and Leonard Slatkin as director of the orchestra's summer series. Succeeding Stanislaw Skrowaczewski, Marriner will assume his duties in Minneapolis in September 1979. Among the most recorded conductors currently before the public, Marriner has made more than two hundred albums. His present contract with Philips calls for twenty recordings a year with the Academy of St. Martin-in-the-Fields and other orchestras and permits him to make four records a year for other companies. The Minnesota Orchestra records for the Vox label.

- NYIREGYHÁZI: We had hoped to be able to give readers a review of the recordings made with this artist in San Francisco in January and March, but contract negotiations are holding up the release. Two-party agreements between artist and record company are difficult enough to arrive at, but in this case there are four principals: Nyiregyházi himself, the International Piano Archives, the Ford Foundation, and Columbia Records. At press time, Columbia was sanguine about a September release.

- THE NEWPORT JAZZ FESTIVAL's twenty-fifth anniversary season takes place in New York City from June 23 to July 2 and includes two days at the Saratoga Performing Arts Center in Saratoga Springs, N.Y. Among this year's performers are Count Basie, Ornette Coleman, Bill Evans, Ella Fitzgerald, Stan Getz, João Gilberto, Stan Kenton, Tito Puente, Mel Tormé, Sarah Vaughan, Mary Lou Williams, and many others. For programs and ticket information write to Newport Jazz Festival--New York, P.O. Box 169, Ansonia Station, New York, N.Y. 10023.

- CONDUCTOR ARTURO TOSCANINI is being honored by National Public Radio with the rebroadcast of a fifty-two-week series of hour-long programs, Toscanini--the Man Behind the Legend. The series, which began on NPR on April 30 and will continue until April 22, 1979, was originally broadcast on NBC. Each program includes about thirty-five minutes of music, selected from rehearsals and recordings of the NBC Symphony and the New York Philharmonic under Toscanini. Other portions consist of interviews with Eugene Ormandy, Zoltán Kodály, Lotte Lehmann, Jan Peerce, Rosa Raisa, Richard Tucker, and many others. Check local NPR stations for times of broadcast.

- HERBERT VON KARAJAN's new eight-disc recording of the nine Beethoven symphonies, released in this country last fall by Deutsche Grammophon, has reached sales of 150,000 sets worldwide (excluding tapes and de luxe editions), a total of 1.2 million discs. Karajan's earlier complete set of the Beethoven symphonies on DG, released here in 1963, was one of the few classical records ever certified gold by the Recording Industry Association of America.

- OPERA THEATER, a production of WNET/13 in New York, will begin national weekly telecasts over most Public Broadcast Service stations on July 3. The season's highlights will be Benjamin Britten's Albert Herring, performed by the Opera Theater of St. Louis and Conrad Susa's Transformations by the Minnesota Opera, both scheduled for videotaping in June. In addition to a number of repeats from previous seasons, this year's Opera Theater will include for the first time Verdi's Falstaff, Nino Rota's The Italian Straw Hat, and Gilbert and Sullivan's The Yeomen of the Guard. Check local listings.

- ELVIS COSTELLO cannot be accused of thinking small. Cornered at a recent Nick Lowe gig at the Bottom Line, rock's ranking contender was asked if world domination was his ultimate career goal, as has been rumored. El's reply: "At least."

July 1978
WHY YOU OUGHT TO INVEST IN A FISHER SPEAKER SYSTEM RATHER THAN SOMEBODY ELSE’S.

Building a great speaker is something like building a great violin. Although there are many violin manufacturers, the design artistry and painstaking craftsmanship of the Stradivarius won it the reputation as the world's finest.

Making speakers, like making fine musical instruments, is something of an inexact science . . . even with today's computers. It still takes artistry, craftsmanship, and most of all, experience to produce a great sounding speaker.

Our new Studio Standard ST400 series speakers, manufactured at our modern speaker plant in Milroy, Pa., are the culmination of everything we've learned in producing hundreds of thousands of speakers. At the top of this new line is the ST461—a speaker that critical listeners consistently rank among the two or three best they've ever heard.

The ST461 combines the staggering bass capability of the 15" Fisher model 15130 woofer, the flawless midrange of two 5" model 500 midrange drivers, and the ultra-high definition of the 3" model 350 horn tweeter. Plus a precision crossover network with adjustable midrange presence and treble brilliance, and a resettable circuit breaker overload protector. All in a beautifully finished genuine walnut cabinet, at the reasonable price of $350*. Other ST400 series speakers start at $120*.

So, if you'd like to own the "state-of-the-art" in speakers, listen to Fisher's new ST400 series.

Fisher components are available at selected audio dealers or the audio department of your favorite department store. For the name of your nearest dealer, call toll-free 1-800-528-6050, ext. 871 from anywhere in the U.S. (In Arizona, call toll-free 1-955-9710, ext. 871).

*Manufacturer's suggested retail value. Actual selling price is determined solely by the individual Fisher dealer.

© 1978 Fisher Corp., Chatsworth, Calif. 91311
Editorially Speaking

By William Anderson

VIDEO VISION

My train reading for the last couple of weeks has been John Gruen's new biography of Italian-American composer Gian Carlo Menotti (Macmillan, 1978). Though it suffers from the limitations hero worship imposes on candor and is written with a kind of credulous, fan-magazine breathlessness, paradoxically manages to suggest that its sub-

ject is Not a Nice Man. It is, however, a use-

poses on candor and is written with a kind of

suffers from the limitations hero worship im-

era in the United States in 1972—which to

350 productions in 1969 alone, and that it was

amahl and the Night

that Menotti's opera Amahl and the Night

are going to require. Over the past several

years the rights to just about every scrap of

old film that has an image on it have been cor-

realized for video; it seems to me that I

will feed their video through our TV sets and

neither TV broadcast sound nor the audio sec-

with the public (Christmas-story theme quite

mind. (2) Ballet—both classical and modern—

Is it axiomatic in this part of the entertain-

mental world that the Hardware Anticipates the

software, which means that we will not be

seeing (or hearing) many examples of really

impressive programming until a sizable num-

ber of machines are in place in American

homes. Nonetheless, I have a sinking feeling

that the nascent video-recording industry is

not readying the kind of hard-cover, made-

in some may seem like carrying the sin of acces-

bility just a bit too far.

Amahl, commissioned by NBC in 1951,

was the first opera written especially for TV.

That fact alone should guarantee it a place in

moral history books, but its great success

with the public (Christmas-story theme quite

aside) argues that perhaps it ought also to be

considered a kind of a text for those who will

be doing the programming for the next big

thing on the home-entertainment front: video-

tape (and video-disc) players.

It is axiomatic in this part of the entertain-

ment world that the Hardware Anticipates the

Software, which means that we will not be

seeing (or hearing) many examples of really

impressive programming until a sizable num-

ber of machines are in place in American

homes. Nonetheless, I have a sinking feeling

that the nascent video-recording industry is

not readying the kind of hard-cover, made-

mores. emphasizing the unbuttoned reminis-

sions of present-day TV sets can be accused

of high fidelity, it will probably be wise initial-

ly to build video-tape and disc machines that

will feed their video through our TV sets and

and can at about the same time as the Devil

takes up ice skating.
The first cassette deck that can find selections automatically.

Now there's a cassette deck that plays it your way.

The Optonica RT-3535 Mark II. It's the world's only cassette deck with APLD, the Automatic Program Locating Device that lets you select the songs you want to hear automatically, instead of manually searching for each cut.

But that's not all.

This Optonica cassette deck also has the kind of specifications that will impress the most dedicated audiophile.

The high quality tape transport features a 2-motor drive system, and a precision polished capstan shaft. Which results in a wow and flutter of an amazingly low 0.04%. Compare that figure with other top of the line cassette decks and you'll see why Optonica can honestly call the RT-3535 Mark II, The Optimum.

A built-in Dolby System means you won't have to worry about hiss and noise ruining the performance of your tapes. And the ultra-hard Permalloy heads mean you'll have greatly improved frequency response, especially in the high range.

We invite you to test the Optimum cassette deck at one of the select audio dealers now carrying the full line of Optonica stereo components. Call toll-free, 800-447-4700 day or night (In Illinois dial 1-800-322-4400), for the name and address of your nearest Optonica showroom, where you can see the complete Optonica line and pick up your free copy of our catalog. Or for further information, write Optonica, Dept. SR, 1 Keystone Place, Paramus, New Jersey 07652.

From our cassette deck that finds selections automatically to our unique turntable built on granite, find out why throughout Europe and Japan, Optonica is one of the fastest selling lines of stereo components on the market today.

OPTONICA THE OPTIMUM

*Dolby is a trademark of Dolby Laboratories, Inc.
THE JVC CASSETTE DECK.

It gives you more of what other decks wish they could.

Some day there'll be totally automatic, absolutely foolproof, distortion-free cassette deck recording. And when it happens, JVC will develop the technology to achieve it. But until then we've come mighty close to it. Our new collection of quality cassette decks embodies exclusive and advanced features that thoroughly reinforce our reputation for innovative thinking.

EXCLUSIVE SPECTRO PEAK INDICATOR SYSTEM

The new KD-85 and KD-65, for example, offer more positive recording control than ever before. The reason is the newly developed and exclusive JVC Spectro Peak Indicator system. With almost recording studio vigilance, 25 instant-responding LED indicators offer you fail-safe protection against distortion produced by tape over-saturation. For the first time, you can constantly visually monitor the levels of five low-to-high frequency ranges. Then, on playback, the Spectro Peak Indicator display lets you actually see how successfully you reproduced the music.

EXPANDED DYNAMIC RANGE AND BETTER NOISE REDUCTION

If you've ever had difficulty recording without distortion the sudden high peaks of a piercing jazz trumpet or the head-snapping clash of cymbals, you'll appreciate the value of our Super ANRS. Developed exclusively by JVC, it applies compression in recording and expansion in playback to improve dynamic range at high frequencies. But it doesn't stop there. Super ANRS is a highly effective noise reduction system that reduces tape hiss by boosting the signal-to-noise ratio as much as 10dB over 5,000Hz.

NEW HEAD DESIGN

Most other makes of cassette decks opt for either permalloy or ferrite tape heads. JVC gives you the best of each with our own Sen-Alloy head. It combines the sensitive performance of permalloy with the extreme longevity of ferrite.

GET THE MOST OUT OF ANY TAPE

JVC also gives you freedom of choice in the tape you use. Because whichever type you select, you'll extract the most performance from it with our matchless recording equalizer circuit.* This unique JVC feature lets you fine tune different combinations to get optimum high level response from any tape on the market.

These innovations alone set JVC cassette decks apart from all others. Then, when you consider our other refinements like the precision ground capstan, independent drive mechanism,* or our gear/oil damped cassette door, plus top-performance specifications, you can understand why JVC gives you more of what other decks wish they could.


JVC
We build in what the others leave out.

CIRCLE NO. 28 ON READER SERVICE CARD

*Not all features in all models.
Introducing the Technics SA-1000. With more power and less distortion than any other receiver we've made: 330 watts per channel minimum RMS into eight ohms from 20 Hz-20 kHz with no more than 0.03% total harmonic distortion.

But that's only one reason to buy the SA-1000. Dynamic range is another. To capture the volume, clarity and sheer dynamics of a live symphony, you need an equally dynamic amplifier section. Like 72,000 µF worth of high-capacitance filtering, separate DC rectifiers, current-mirror loading and direct coupling. The results are impressive: tremendous reserve power, negligible transient crosstalk distortion and excellent stability.

And just for the record, the SA-1000’s phono equalizer gives you everything from a super-high S/N ratio of 97 dB (10 mV, IHF A). To a phono input that can handle a 300 mV signal at 1 kHz.

On FM you'll get outstanding specs plus two RF stages with low-noise, 4-pole, dual-gate MOS FETs, Technics-developed flat group delay filters and a Phase Locked Loop IC in the MPX section.

<table>
<thead>
<tr>
<th>FM Sensitivity</th>
<th>FM Selectivity</th>
<th>Stereo Separation</th>
</tr>
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<tbody>
<tr>
<td>0.9 µV</td>
<td>36.2 dB</td>
<td>85 dB</td>
</tr>
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</table>

'IHF '75 standard.

As good as all that sounds, Technics Acoustic Control makes it sound even better, because it adds low and high range boost and filter switches which vary the way each tone control performs at a particular setting. There’s also a midrange control with a variable center frequency. And 24 LED peak-power indicators that let you keep an eye on what your ears will hear.

The Technics SA-1000. In the world of receivers, it bats 1000.

**CIRCLE NO. 53 ON READER SERVICE CARD**

A few receivers give you 0.03% THD. Only Technics gives it to you with 330 watts per channel.
Critical Entities

- As perhaps the only one around who buys Stereo Review exclusively for the record reviews, I fully realize that this section is merely an amenity and not essential to the overall purpose of the magazine. With that in mind, I can hardly call such critical nonentities as Noel "Lightfoot" Copping. Noel, you and Peter Reilly (for whose information, Wonderful World as written and sung by the immortal Sam Cooke is worth more than the collected works of Art Garfunkel, James Taylor, and Jimmy Webb) to order for their impersonation of rock critics. Steve Simels, however, does have pretensions of being knowledgeable in the field of rock-and-roll, and he must be dealt with accordingly before his position as cock of the walk goes to his head.

I have a feeling that Mr. Simels is snubbing the so-called New Wave in its entirety because he is still losing sleep over Johnny Rotten's calling Mick Jagger a boring old fart. Well, Steve, you are one too in your defense of the Stones' miserable track record of late. Just about every New Wave group has made a more viable LP in the past year than anything the Stones have done since "Out of Our Heads" (including your beloved and overrated "Exile...").

The Ramones, Clash, Jam, and the Sex Pistols have yet to garner the audience they deserve partly because of icon worshipers like you. C'mon, Steve, give 'em a chance! They're definitely preferable to Aerosmith, Led Zeppelin, Foreigner, and disco.

And don't let the hype get you on Warren Zevon either. Stereovin. One Elvis Costello is worth the whole Asylum label (except the Dictators, of course!). Perhaps your greatest mistake to date was trying to defend the indefensible Lonely Boy by Andrew Gold.

The Searchers are pop, Peter and Gordon are pop, Big Starr is pop, the Scruffs are pop: Lonely Boy and its creator are pop. You might try learning the difference.

Paul Maney
Boone, N.C.

Steve Simels replies: Ah, how quickly they forget. Sorry, Paul, but in just the last few months I've raved in these pages over Patti Smith, Elvis Costello, Eddie and the Hot Rocks, Nick Lowe, the Sex Pistols, and the Boomtown Rats. That hardly constitutes a sniff of the New Wave. As far as the Stones go... so I'm sentimental about them. Sue me. So is Ms. Smith; are you going to argue with her too?

Levitation

- The cover of the May issue looks very odd to me. The man in the picture seems not to be sitting on the chair, but in the air, leaning on top of the stack of receivers. Also, the chair has only one arm. Was this picture taken from two photographs placed together wrong, or was it meant to be that way—and if so, why?

Nancy Matel
Milwaukee, Wis.

The chair in the cover photo is a turn-of-the-century photographer's chair with an adjustable, round center seat that can be raised or lowered like an old-time piano stool. The single arm was designed to help the subject relax to me. The man in the picture seems not to be sitting on the chair, but in the air, leaning on top of the stack of receivers. Also, the chair has only one arm. Was this picture taken from two photographs placed together wrong, or was it meant to be that way—and if so, why?

Nancy Matel
Milwaukee, Wis.

Dubbing Dilemma

- I am seriously considering buying a high-quality open-reel tape deck in order to dub music from discs, since I have a strong aversion to the ever-present snaps, crackles, and pops on most records. Leaving aside the question of equipment to suppress record noise, I am considering dubbing from discs both because of the scarcity of prerecorded open-reel tapes and because that would make it possible for me to use a stereographic equalizer to balance the music to suit my taste.

However, such a procedure presents a financial-ethical dilemma: buying new discs together with quality blanket tape is prohibitively expensive, but borrowing the records to tape them (from a public library, say) seems unethical. I see one possible way out, which would be a service whereby one could rent records for a copying fee, similar to the fees some libraries charge for copying journal material—though in that case the problem is easier since the copying machines can be controlled in a way the home recordist's equipment cannot be. Any comment?

John McCallum
Kitchener, Ontario

The Editor replies: Mr. McCallum displays a commendable ethical sensitivity, but his question is academic because there are not likely ever to be any rental services of the kind he describes. Open-reel prerecorded tapes are in very thin supply on the market for the simplest of reasons: so few people buy them that producing them costs the record companies money rather than permitting them to make any. If Mr. McCallum wanted to make tape copies of tapes, therefore, he would in most cases be out of luck. And if he wanted to tape from discs, he would have to deal with the snap, crackle, pop problem. Yes, the original record producers might conceivably operate a tape-dub service for the audio purist, but why should they? I cannot see that they would do anything but lose money in the process. And if a non-industry entrepreneur were to provide such a service, using either discs or tapes, I cannot see how the result, without very costly surveillance either by the record companies concerned or by music-licensing organizations, could be anything other than piracy at second hand. Quite aside from depriving record companies of their rightful income, there is also the tremendously complicated matter of compensating performing artists, lyricists, and songwriters for their contributions. And so, to this as to other problems, there appears to be only one answer: we need a higher level of sound quality in our recordings. I believe that this is not possible without higher prices (and/or expensive new technology), and I also believe that the great majority of American record buyers will not pay them. Talk about Catch-22?

Arts Subsidy

- To answer the Editor's question in the May letters column: much to my regret, I think people do want Uncle Sam to control the arts, as well as almost every other aspect of their lives. At least, public officials always seem to take the lack of serious objection as implied consent. And since government support is already an accomplished fact through the National Endowment, I think it is the government's duty to institute controls to make the arts funded through the Endowment available to everyone who is footing the bill. A sure source with me is performing arts that accept public money and then sell subscriptions or series tickets, which tend to exclude members of the lower economic group who might be able to spend the money for a single performance but cannot afford to subscribe. In effect, the government is taking tax money from the person who struggles to buy a $10 ticket (when single-performance tickets are even available) and using it to subsidize performances for the person who can afford a $100 subscription. I propose that any art institution that accepts public money be prohibited from selling subscription or series tickets.

R. L. Bomberger
Lancaster, Pa.

The Editor replies: The proposal seems equitable in theory, but in practice it would work only if the government subsidy were 100 per
Q. How close can hi-fi get to an authentic musical experience?

A. Slip on new Audio-Technica Stereophones and hear for yourself. If you want to find out how good the new Audio-Technica Stereophones really are, don't just compare them with other headphones. Put them up against the very finest speaker systems. But don't just listen to the equipment. Listen to the music. And be ready for a surprise!

Judged on the basis of flatness of response, freedom from distortion, transient response, sensitivity, and independence from room acoustics, these new dynamic and electret condenser models are perceptibly better sounding than speaker systems costing hundreds of dollars more.

And if you think that great performance can only come from heavy, bulky stereophones, get ready for another surprise. Our heaviest model is less than 7½ ozs. and our lightest is an incredible 4¾ ounces light. Comfort that lasts an entire opera if you wish.

For all the facts, send for our catalog. But for the revealing truth about stereophone performance, listen and compare at your nearby Audio-Technica showroom. It will be a great musical experience.

Model ATH-7
Our finest Electret Condenser with LED peak level indicators
$149.95

Model ATH-1
The moving coil dynamic stereophone that weighs just 4¼ oz.
$29.95

---

Mel Tormé

Editor William Anderson was partially right, in his May "Editorially Speaking," about the meaning of my statement on Mel Tormé. The other half of my meaning was that commercial success, and the desire for more of it, seems to have affected Tormé's performing very badly. I first noticed this on a [broadcast of] recording of Fly Me to the Moon: the first chorus was simply superb, but then the second was falsified. I felt that he must have been performing live somewhere—and so it was announced afterward: Mel Tormé recorded live at the Red something in Camden. And I've seen him on TV several times doing a big Las Vegas bit. That's nothing unusual—hundreds of singers do a big Las (Continued on page 16)
ReVox B790
the beginning of the second hundred years

In the one hundred years since Edison recorded "Mary had a little lamb" on a tinfoil cylinder, no one found a way to eliminate the mass of bulky tone arms.

Then Willi Studer developed the revolutionary ReVox B790 true tangential tracking turntable. It replaces the conventional tone arm and all its problems with a unique, patented opto-electronic playback servo system. The cartridge moves up, down and laterally guided by a beam of light. It's easy on your record grooves and easy on your nerves. It's so simple and goof-proof even a child can safely play your most treasured records.

The new ReVox B790 looks and performs better than any turntable you've ever seen or heard. To give it the ultimate test, bring your favorite record to your ReVox dealer for a demonstration. For complete information and the name of your nearest ReVox dealer, circle reader service number or write to us.

Studer Revox America, Inc., 1819 Broadway, Nashville, Tenn. 37203 / (815) 329-9576 • In Canada: Studer Revox Canada, Ltd.

CIRCLE NO. 49 ON READER SERVICE CARD
Welch "sing"? Or Jennifer O'Neill?)

(Good Lord, have you ever heard Raquel Vegas bit—but Mel Torme is too good to lose.

There are many forms of distortion. There are certainly not the case, even when conventional measurements indicate similar magnitudes of distortion. There are many forms of distortion—particularly those of a transient, non-sinusoidal nature—that do not lend themselves to quantitative analysis, but which I believe have a significant effect on the fidelity of reproduction. If this were not so, then Shure would seem to have labored in vain so far as sound quality is concerned—something that I very much doubt. Furthermore, the "Sonus" cartridges manufactured by my own company would certainly not meet with the enthusiastic reception they have were it not for their readily discernible clarity and naturalness of reproduction, in spite of having a frequency-response envelope and conventional distortion characteristics that are not, in and of themselves, significantly superior to those of their competition.

The high level of performance achievable by today's cartridges, particularly when judged by conventional measurements, should not allow the eye to deceive the ear into believing that they all sound essentially alike. They don't, and until we develop new and more relevant measurement techniques, the ear must remain the final arbiter.

Julian Hirsch replies: I do not totally agree with Mr. Pritchard on all the points he raises in his letter, but I do agree wholeheartedly that the matter is worthy of further discussion, and I will be returning to it in future issues of Stereo Review.

Rimsky's Moussorgsky

- In an April letter, Joseph Pearce calls for "going back to the Rimsky version" of Moussorgsky's Boris Godounov, which he claims is the preference of "most of the opera lovers" he knows and of "Boris lovers in particular." I have never met any of these alleged lovers of Boris, but assuming they exist they would do well to stick to something like Tosca, which would seem to be more in tune with their sensibilities. No doubt these perceptive listeners would like to have the music of Strauss, Prokofiev, and other original minds rewritten by Rimsky as well.

The Rimsky version of Boris is unfortunately not in danger of being driven from the stage or the turntable (it has had at least nine complete recordings). Any attempt to deprive the authentic version of its hard-won share of public attention will be regarded as a casus belli by a large and well-armed contingent of critics and listeners. Rimsky's cause would be better served by the revival of some of his own wonderful—and shamefully neglected—operas.

Daniel Morrison
New York, N.Y.

Giving Credit

- I want to thank Stereo Review and Paul Kresh for the generous attention given in the May issue to the first releases in the Smithsonian Institution's new "American Musical Theater" series. I feel obliged to point out, however, that I am not the one who deserves Mr. Kresh's praise for having researched and written the notes for "Ziegfeld Follies of 1919." It was Stanley Green, Stereo (then Hi-Fi) Review's former show-music editor, who did that job so well.

Martin Williams
Division of Performing Arts
Smithsonian Institution
Washington, D.C.
There's a Sankyo deck for everyone ... and every occasion.
For the audiophile who wants the most sophisticated equipment possible ... for someone looking to upgrade their system. For someone looking for their first stereo cassette deck.
For anyone looking for a Birthday, Anniversary, Father's Day, Mother's Day, Graduation, Wedding gift or any special occasion.
A Sankyo cassette deck can make any happy reason or season even happier. And there are also Sankyo Stereo Receivers designed to complement our quality-built decks.
All are full featured and protected by the Sankyo Full Warranty.
Start celebrating a special reason or season soon. All you need is Sankyo and someone you'd love to make happy. And that includes yourself!
For the name of your nearest Sankyo dealer, write to Sankyo, Department SR.

Sankyo decks for all reasons ... and seasons.

If the others had quality like ours, they'd have a Full Warranty like ours.

Sankyo Seiki (America) Inc.
149 Fifth Avenue, New York, N.Y. 10010 • (212) 260-0200

JULY 1978
The development of a new magnetic oxide, MRX3, has resulted in a new line of cassettes from Memorex to replace the well-known MRX2 series. The specific benefits conferred by MRX3 include lower distortion, higher maximum output level at low and mid frequencies, and higher output at saturation for high frequencies.

Like MRX2, the new oxide takes a “standard” 120-microsecond playback characteristic, and optimum recording bias corresponds to the DIN level for ferric-oxide tapes. The turntable is made up of steel and particleboard panels in a sandwich construction. The turntable base is supported by resilient adjustable rubber feet that afford physical isolation by means of a complex internal assembly of springs and lubricated neoprene-rubber dampers.

The PD444 is a two-speed machine (33 1/3 and 45 rpm) with a 1/8-pound aluminum platter. Wow and flutter are no more than 0.025 per cent (wrm), and rumble is under -75 dB. A switch is provided that can be used to select the output of either tone arm. With the acrylic dust cover provided, the PD444 measures approximately 26 x 6 1/4 x 15 1/2 inches. Price: $795.

The Model T-909 digital FM tuner incorporates a memory in which up to seven stations can be stored for recall at the touch of the appropriate front-panel button. Beneath the row of buttons a flip-down section of the front panel conceals an array of switches used to enter the stations into the memory via a simple program. A small tool is provided with which to manipulate the tiny levers of the switches. Also concealed behind the flip-down section are pushbuttons to patch in an external Dolby noise-reduction unit, select mono or stereo mode, introduce a high-frequency blend for noise cancellation, and switch interstation-noise muting on or off.

The T-909 is a true frequency-synthesizing tuner employing a quartz-crystal oscillator. The primary tuning mechanism is operated through pushbuttons that initiate a frequency scan up or down. Correct tuning is shown by the illumination of an indicator light. On the rear panel is an output-level control and multipath outputs that can be connected to an oscilloscope for a tuning display. The T-909 has a usable sensitivity of 1.7 microvolts, a 50-dB quieting sensitivity of 3 microvolts (35 microvolts for stereo), a capture ratio of 1.5 dB, and an alternate-channel selectivity of 80 dB. Other specifications include: ultimate signal-to-noise ratios, 80 dB (mono) and 74 dB (stereo); AM suppression, 55 dB; harmonic distortion at 1,000 Hz, 0.08 per cent (mono) and 0.15 per cent (stereo); and frequency response, 30 to 16,000 Hz +0.5, -2 dB. Approximate dimensions of the tuner are 17 1/2 x 3 1/4 x 14 inches, including the wood cabinet supplied. Price: approximately $950.

Sound Guard’s Pad For Lint-free Record Care

The Ball Corporation has enlarged its line of Sound Guard record-care products with a non-slip work pad that provides a lint-free surface for routine record inspection and cleaning. The pad is made of a special copolymer and is readily washable. It is resilient to cushion the disc and prevent it from slipping around. A receptacle permits excess cleaning fluids to run off. For the application of such fluids, a capillary action between the disc and the surface of the pad ensures uniform coverage of the record side being treated without wetting the other side. Price: $7.99.

Rack Labs Crossover Converts from Stereo to Mono

The EC-32 electronic crossover from Rack Labs is a two-way stereo crossover that can be converted to a three-way mono unit with a patch cord. It has continuously adjustable (Continued on page 20)
To get a superb performance, you need a precision machine.

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

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

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

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

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

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

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

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

**Our famous SA and AD Tape Performance**—two of the finest tapes money can procure are securely housed inside our cassette shells. SA (Super Avilyn) is the tape most deck manufacturers use as their reference for the High (Cr02) bias position. And the new Normal bias AD, the tape with a high hot end, is perfect for any type of music, in any deck. And that extra lift is perfect for noise reduction tracking.

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

*In the unlikely event that any TDK cassette ever fails to perform due to a defect in materials or workmanship, simply return it to your local dealer or to TDK for a free replacement.
New Products latest audio equipment and accessories

able crossover frequencies (from 250 to 7,000 Hz) for each channel, as well as level controls for both low- and high-frequency bands. The controls for each channel are completely separate. There are also special buffer stages at the outputs so that the EC-32 remains unperturbed by short-circuit conditions. A 1-amp fuse is accessible from the front panel. The unit is suitable for professional applications as well as home use.

The harmonic distortion rating of the EC-32 is under 0.05 per cent. Overall gain is unity, and the filters have slopes of 12 dB per octave. Maximum input and output voltage is 8 volts. Output impedance is 1,000 ohms. The cabinet, designed for rack mounting, measures 19 x 3 1/4 x 6 inches. Price: $250. Rack Labs, 136 Park Street, New Haven, Conn. 06511.

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For years, SAE has been producing "state-of-the-art" separate components that offer value, quality and performance. That experience has now been applied to a line of integrated amplifiers. But what's the hole for? The answer is, ultimate performance!

Unlike others, our integrateds are identical to our separates with the same designs and component parts already proven in SAE preamps and amps. But that's not all - in each of our integrateds the preamp and amp section is entirely separated (even the power supply!). The preamp section, which is identical to our 2900 (or 3000, depending on the model) has its inputs and outputs near the front (hence the need for the hole), while the amp section (2200 or 3100) is at the rear. The only common parts are the chassis and the power switch. This unusual "U" shape design provides isolation of low and high level circuits, while retaining easy access to inputs and outputs (now only 3.5" behind the front panel).

These new units are so unique we don't consider them integrateds. Instead, we call them preamp/amps. They meet all the goals of an ideal integrated; (1) Convenience of an integrated design; (2) Excellent value due to reduced packaging costs; 3) The performance of separate components.

No matter which of SAE's preamp/amps you choose - the 2922 with parametric EQ and 100 watts* per channel, 3022 with tone controls and 100 watts* per channel or the 3031 with tone controls and 50 watts* per channel, you are assured of SAE performance, quality and value. The preamp/amps are truly integrated separates. And that's the whole story.

*Per FTC Rating @ 8 ohms

For Complete Information Write:

Scientific Audio Electronics, Inc.
P.O. Box 60271 Terminal Annex, Los Angeles, CA 90060
FET's and Bipolar Transistors in Sony Amplifier

The Sony TA-N7B power amplifier combines power FET's and conventional bipolar power transistors in a unique cascode output stage. Six of each are used in either channel, presumably permitting the benefits of both types of device to be realized in the design. The amplifier employs a fully direct-coupled "DC" configuration, although an alternate set of inputs with capacitive coupling can be used, introducing a 6-dB-per-octave rolloff below 6 Hz.

The power supplies of the TA-N7B are not only completely separate for each channel (including the toroidal power transformers), but also for the input and output stages of each channel. Rated output is 100 watts per channel from 20 to 20,000 Hz with no more than 0.01 harmonic or intermodulation distortion. An input of 1.3 volts drives the amplifier to full output; input impedance is 50,000 ohms. The A-weighted signal-to-noise ratio is 120 dB. Built-in protective devices include a high-speed relay to prevent d.c. or infrasonic transients from reaching the loudspeakers, plus high-temperature and short-circuit protection. The amplifier's dimensions are 17 x 6 3/4 x 13 3/4 inches and weight is 44 pounds. Price: $920.

Audio Technology

Audio Technology LED Indicator Reads Both Watts and Volts

The Audio Technology Model 510 is a peak-reading level indicator for audio systems capable of reading voltage levels (preamp or tuner outputs, for example) and power levels. It is thus of use in tape recording as well as in monitoring power-amplifier output. The 510 has two rows of sixteen LED's—one row for each channel—calibrated in decibels. The 0-dB levels can be adjusted for both line- and power-level indication with rear-panel controls. Sensitivity of the line-level inputs is continuously adjustable, and for power-level inputs it is switchable for 0-dB points of 25, 50, or 100 watts into load impedances of 4, 8, or 16 ohms. Switching from the line-level (dB) to the power-level (dBw) mode is accomplished with a front-panel pushbutton.

The 510, which has a frequency response of 20 to 20,000 Hz, has input impedances of 10,000 ohms for the line-level inputs and 20,000 ohms for the power-level inputs. The 0-dB level for the line inputs is adjustable from 50 millivolts to 5 volts; the power inputs can display levels from 0.00085 to 1.600 watts. In any one sensitivity setting, the display range is 45 dB (from -39 to +6 dB). The display resolution near the 0-dB point is 1 dB. The minimum rise time of the indicator is 50 microseconds (μsec); this is dependent on the magnitude of the level change, and a full 45-dB change will have a rise time of 750 μsec. The 510 measures 7 3/4 x 13 3/4 x 7 1/2 inches. Genuine oak side panels are available, as is an opaque poly covering; the approximate dimensions are 49 1/2 x 21 3/4 x 17 1/4 inches. The LX-3000, intended to house JVC's budget-price components, is constructed of walnut-finish-vinyl chipboard and measures about 44 1/4 x 18 3/4 x 14 1/4 inches. It is mounted on a turntable, cassette deck, amplifier, turner, and equalizer, and it has a record-storage area enclosed by transparent doors.

Prices for the MusicTowers are about $300 for the LX-3000, $180 for the LK-905, and $180 for the LX-33/MK-33.

Pocket Guide to Loudspeaker Design

The Loudspeaker Handbook and Lexicon is a pocket-size guide to loudspeakers written by Winslow Burhoe of the Little Speaker Company. Burhoe is a former speaker designer for AR and KLH, and one of the founders of EPI/Epicure. The forty-eight page booklet, which measures only 3 1/2 x 5 1/2 inches, is composed of three sections. The first is a brief essay on speaker design which touches on the various trade-offs involved in this art. The second section, titled "The Basics," includes definitions and explanations of such fundamental concepts as frequency response and speaker "Q" and efficiency. The third part of the booklet is the lexicon, with definitions and brief discussions of a number of terms and concepts relating to loudspeakers. The booklet is illustrated with fifteen photographs. Price: $1. from the Little Speaker Company, 78 Stone Place, Melrose, Mass. 02176.

NOTICE: All product descriptions and specifications quoted in these columns are based on materials supplied by the manufacturer. Recent fluctuations in the value of the dollar will have an effect on the price of merchandise imported into this country. Please be aware that the prices quoted in this issue may be subject to change.
Announcing what to use when, and when to use what.

"I want to record my daughter playing the trumpet, and send the tape to my mother. So we can both suffer."  
"What's the best tape to use for dictation?"

"Man, I need the finest tape you got, cause I've got the best set of ears anywhere, anytime."

People know what they use blank tape for. Where it gets muddled is: which tape to use?

Sony humbly proposes a dramatic clarification. We are going to thread through the tape mess, and tell you simply and directly, which tape fills which need.

And there's no one more equipped than Sony to do it. We've been making blank tape for 30 years. We are the only ones to offer the consumer both blank tape and cassette recorders. You learn a lot about both by making both.

What's more, blank tape is small, and Sony shines in close quarters. Our housing, hub mechanism and oil are all real improvements in reliability.

At Sony we have two goals.

We want our tape to reproduce sound clearly.
And we want to explain it clearly.

**Basic Blank.**

The workhorse tape, technically called Low Noise—don't trouble yourself why. It's for those times when you just want to get it down.

In school, a boring lecture on "The history of the thank-you note through the ages."

In the office, yet another budget meeting. In the car, for your cassette player.

At home, for your Uncle Iggie practicing the oboe.

**Better Blank.**

While Basic Blank is primarily for speech recording, Better Blank is primarily for music. (Its technical name is Hi Fidelity, one of the few technical names to explain anything.)

Better Blank is sensitive to a wide dynamic range—which means the lows and the highs. It's particularly valid in the bass register—and it won't hurt too much at the cash register.

Better Blank is not Ultimate Blank, but you can still use it in a living room, concert hall, or off a record.

**Beautiful Music Blank.**

If you want to sound knowledgeable, call it Chromium Dioxide. A thin coating of that substance makes this tape loyal and faithful in the high frequency range.

So piccolos will sound perfect. Lead singers, sublime.

Use this tape when quality—particularly in the high range—is the highest priority.

**Best Blank.**

When the object is the ultimate, and money is no object. Officially called Ferri-Chrome, this tape offers low distortion and a wide, flat frequency response.

It combines Chromium Dioxide, to pick up the highs, with Ferric Oxide—so the lows reach new heights. There is no better tape to reproduce music.

But do you need Ferri-Chrome? Some say that only the Verri-Crazy can tell the difference. But it's nice to know that the difference is there—if you have the ears to hear it.
TV-sound Picture

Q. Although TV picture quality has improved tremendously, little has been done to improve TV sound. I would welcome a set with less distortion, separate bass and treble controls, and better speakers. What are the prospects?

JOHN KLEINDIENST
Watertown, N.J.

A. I'm not at all sure that all the audio faults you're hearing originate in the set itself. A neighbor of mine is collecting Star Trek soundtracks, which he records through a good hi-fi system. In general, those soundtracks, when replayed through a good hi-fi system, have about the same audio quality as can usually be heard from a $3.50 pocket radio. Admittedly, this is probably a worst-case situation, but I suspect that the sound of few TV programs is good enough to deserve much engineering effort in a TV set's audio system—particularly when it would add substantially to its cost.

There has been much discussion (and many promises made) relating to the upgrading of TV sound quality on the broadcast end, in these and other pages. And for those TV viewers of live performances from the Metropolitan Opera and the various PBS cultural video-tape broadcasts, improved audio quality is highly desirable. However, I suspect that the vast majority of TV viewers couldn't care less whether the chatter of Charley's Angels or the sloshing of the sea surrounding The Love Boat comes through with full fidelity.

Until recently, except for special occasions, there was an effective 5,000-Hz limit on the range of the audio signals accompanying network broadcasts. Even if the picture part of the TV signal went by wide-band coaxial cable or a microwave link, the stepchild audio would be sent by narrow-band line. Depending upon chance factors involving the lines available at any specific time, the audio signal might actually travel a far greater distance (with resulting degradation) than the video signal does before it reaches your TV.

The recent utilization of microwave or wide-band long lines for audio is actually a happy consequence of the needs of the various data-transmission enterprises. They need wide-bandwidth lines to assure accurate communication between computers, so audio is the beneficiary once again of fall-out from a higher (and far more expensive) technology. The technique used to encode the audio for transmission along with the video is called "diplexing." You can expect satellites to get into the audio-transmission act later this year, and that will really put the "high" in high fidelity. What's more, stereo TV sound is in the thinking stage.

The Japanese have over the years come out with a variety of interesting TV-sound components—including some with 3-inch picture tubes—but only in their home market. Until last March, none of the TV-sound tuners had made it to the U.S. (Perhaps Japanese visitors from the home factory listened to U.S. TV and decided that there was no market for the product since we obviously didn't give a damn about TV sound quality!) However, Pioneer has taken the plunge and has introduced the TX-9500 TV-audio tuner component (shown), which has touch-tune channels and uses low-noise, low-distortion circuits throughout. The price is about $230—and if there's hi-fi TV sound being broadcast, it's clear that the Pioneer unit will deliver it.

Ultrasonic Response

Q. Since the fundamental range of most voices and instruments goes no higher than about 5,000 Hz, do we really need hi-fi equipment with a frequency response from d.c. to light—and at a premium price? Or would something with more modest specs do as well?

STEPHEN D. HELMER
APO San Francisco, Calif.

A. This is a question that has been discussed on and off in our pages for many years now, and in my view not all the answers are in yet. First of all, any chart or listing of musical-instrument frequency ranges that shows no more than the fundamental tones is grossly misleading. Many musical instruments actually produce far more energy in their overtones than in their fundamentals. In addition, it's accepted that tones outside the audible range can interact (beat) to produce new tones within the audible range.

For every laboratory experiment that I have heard of in which it has been demonstrated that the insertion of a cutoff filter at 16,000 Hz is inaudible on musical material, someone else has claimed to demonstrate that people can respond to ultrasonic sounds as high as 100,000 Hz or more.

In any case, I don't think that the question has, at the moment, any practical significance in respect to the cost and design of audio equipment. Today, every one of the amplifiers advertised in our publication has an upper frequency response well beyond that of the hearing ability of our readers (I assume that neither bats nor dolphins are numbered among our subscribers). My impression is that most designers extend the frequency response of their equipment far into the ultrasonic range simply because that is the way to insure stable and distortion-free performance in that part of the frequency range that is audible. There are some designers who prefer to extend their response into the megahertz region—and they probably have a rationalization for this—but I leave the justification of such an approach to their technical papers.

Dust-cover Effects

Q. While dusting the cover of my turntable recently, I noticed that static forces strong enough to pull the tone arm firmly to the cover were produced. At other times, enough static charge remained to affect the tracking of the record, especially slightly warped records. Should static charge on the dust cover be taken into account in adjusting the tracking force of the cartridge?

JOE MICHAEL MOORE
Lebanon, Tenn.

A. Ideally, yes, but since the amount of charge varies with the humidity and other factors, it is not possible to adjust the tracking force to compensate for it. Why not try to remove, or at least minimize, the charge on the dust cover as best you can? There are several antistatic solutions for plastic dust covers available from the larger hi-fi dealers that should do the job.

There's another, less obvious potential problem with dust covers. Most such covers have large, undampened areas of thin plastic that can act as diaphragms and will pick up the acoustic vibrations from loudspeakers. These will then be fed to the turntable, aggravating whatever tendency there might be toward acoustic feedback in the system. (The Japanese refer to acoustic feedback in their technical literature as "howling" and produce "anti-howling" record bases.) I suggest, therefore, that you try playing some favorite disc at a very loud volume with your dust cover in place. Then remove the dust cover while playing the same disc, observe whether the sound seems less resonant or "mushy." If so, quite aside from the static-electricity problem, your records will sound better when the dust cover is not used during play.
Hi-fi Eight Track

Q. I have a good new 35-watt receiver and a new turntable with a good cartridge. I hear from my records what’s expected of them. Recently I connected my turntable to a friend’s all-in-one compact system. (Since it was not a professional audio component, I had to use a preamp.) When I connected the compact to my speakers it sounded better than my system. What’s it got that my receiver hasn’t besides a low-fidelity-eight-track tape player?  

DOUG BERRY  
Houston, Texas

A. It’s got, I suspect, a somewhat boomy bass on one end and a fast treble rolloff on the other (to prevent the hiss from the eight-track player from being too obtrusive.) As to why your friend’s mediocre-quality system (and my experience has been that almost all compacts incorporating an eight-track player fall into that category) sounds better to you than your component setup, it’s difficult to know. It could be that your speakers, which you don’t mention, are not as good as the rest of your equipment, that there’s something else wrong in your setup, or you may just prefer mediocre sound. Why not have someone knowledgeable audition your system—or, better yet, visit a local hi-fi store and check the sound of the good stuff on demonstration. If the store’s better systems sound more like your friend’s compact than your components do, something is terribly wrong somewhere! But, it’s difficult for me to determine exactly what from 1,500 miles away.

Antique-phono Info

Q. I recently acquired several old (very old, I think) windup acoustic record players. How could I find out more about when they were manufactured, their performance, value, and so forth?  

LENNY ROGERS  
Milwaukee, Wis.

A. I have two main sources for such information: the popular and recently republished book From Tin Foil to Stereo by Read and Welch (Howard W. Sam and Co., $9.95) and a lively magazine, The Antique Phonograph Monthly. APM is published ten times a year; subscriptions are $7.50 per year and you can get a free sample copy by sending a stamped, self-addressed long envelope to A. S. Koenigsberg, 650 Ocean Avenue, Brooklyn, N.Y. 11226. APM has also republished various technical, instructional, and repair manuals for a wide variety of old record-playing machines.

Mr. Koenigsberg has volunteered to answer any questions (within reason) from Stereo Review’s readers relating to old phonographs, if they are accompanied by a stamped, self-addressed envelope. If you are inquiring about a specific machine, be sure to include all possible details plus, if possible, a Polaroid snapshot of the device in question.

Because the number of questions we receive each month is greater than we can reply to individually, only those letters selected for use in this column can be answered. Sorry!
Tape Talk

By Craig Stark

Fading Performance
Q. Recently, after prerecorded cassettes had been played on my portable cassette recorder, they began to fade in and out when played again, both on this machine and on several others I’ve tried. Is this what would happen with a magnetized tape head? If not, what else might be the problem? - Scott Binder Vorhees, N.J.

A. A magnetized tape head (or guide) would manifest itself by consistently erasing the very highest frequencies and by imposing an additional (but constant) amount of tape hiss. So I don’t think this is your problem. My best guess is that your portable cassette player is causing some intermittent damage to the edge of the tape. Once damaged, it will no longer make good contact with the head, and the damaged sections will tend to vary in level when played on any machine.

This kind of edge damage is likely to be visible in the form of either a crease or a roughening. When you come to a damaged spot, stop, take the cassette out, pull out a couple of feet of tape from the central opening in front of the pressure pad, and examine it. Look particularly at the bottom edge, since this is where the head gaps make contact in the cassette format.

At least one thing is very clear. If your tapes at first play properly on other machines but after being played on your portable deck no longer do so, something is seriously amiss with the portable, and that calls for professional service.

Playback Compatibility
Q. Both you and Ralph Hodges have recently emphasized that there are wide variations in tapes and that for best performance one should use the tape for which a deck has been specifically set up. How does this affect the performance of prerecorded tapes? Don’t the same differences exist there? With few exceptions, manufacturers of prerecorded material give no hints as to the tape they have used, so how is one to know how to optimize a deck for them? - James B. Mehl, Newark, Dela.

A. Unless a manufacturer (such as Advent) states otherwise, you should begin by assuming that prerecorded tapes will use “normal,” not CrO, or other special playback equalization. Further, to the best of my knowledge, all prerecorded tapes are at present produced using the Dolby system. (This should be indicated by the word “Dolby” or the familiar double-D symbol, but it’s possible that for some reason some cassettes will fail to show this.)

While these basic facts get you into the right ball park, they don’t really address your specific question. The fact is that, with few exceptions, manufacturers of prerecorded cassettes do not use the premium-quality tapes available to the home recordist. The characteristics of the cheaper tapes they do use also vary, of course—probably even more widely. But compensating for those variations is the job of the company doing the tape duplication, not the home listener. Playback characteristics (equalization curves, Dolby level, etc.) are standardized, so when you optimize a tape recorder—whether a home model or a commercial duplicator—for a particular tape type, what you are doing is adjusting them to the very highest frequencies and by imposing ordinary use. They’re probably right that their units will do the job. But why take any chance at all? By following my procedure, no surge current comes near magnetically sensitive parts, which seems clearly preferable.

Demagnetizers Revisited
Q. In the April “Tape Talk” you said to be sure to turn on a tape-head demagnetizer before bringing it up to the heads, then, after degaussing, to withdraw it slowly from the heads length before turning it off. The instructions that came with my head demagnetizer say to place it against the head and then turn it on. Could it be that different types of demagnetizers require different techniques for their use? - Steve Johnstone White Plains, N.Y.

A. I’ve seen this instruction on several of the head demagnetizers in the marketplace, and when I’ve contacted the manufacturers they’ve all backed down and admitted that the procedure I suggested is preferred, although they also say that with their units no real problem will arise if you follow their instructions.

The point is simply this: bath at the moment of turn-on and at the moment of turn-off an abnormally large surge of current flows through the demagnetizer. This “surge current” creates a much more powerful field than when the device is simply operating. That momentary field can magnetize a head or tape guide—the very opposite of what you want to do when you use a demagnetizer. The manufacturers who suggest putting the demagnetizer against the head experts the action of their device to remove this initial, surge-induced magnetism along with the residual magnetism the heads had developed during ordinary use. They’re probably right that their units will do the job. But why take any chance at all? By following my procedure, no surge current comes near magnetically sensitive parts, which seems clearly preferable.

Crosstalk Confusion
Q. What is the meaning of the “crosstalk” specification of a cassette deck? I’ve seen printed numbers that run all the way from 25 to 65 dB! Isn’t crosstalk the same thing as separation between the left and right stereo channels? - John Golub, Texarkana, Texas

A. If this were the best of all possible worlds, technical words would have only one meaning and there’d be a lot less confusion. Technically, the “crosstalk” specification of a tape deck refers to the coupling or leakage that takes place between any two adjacent channels on the tape. This coupling occurs, in large part, inside the head, for in a cassette deck (or a multitrack open-reel recorder) the coils and magnetic-pole pieces for right and left channels are adjacent to each other within the same head case. Thus, a signal that appears in one head element tends to be transferred to some degree to the adjacent channel’s head element. The amount of this undesired coupling depends on both the actual distance between the adjacent tracks and the effectiveness of the magnetic shielding the

controls. Happily, however, any Dolby mis-tracking from this source is likely to be sufficiently mild that it will either pass unnoticed or be easy to fix with your audio system’s treble controls.

Stereo Review
head manufacturer is able to place between the different elements.

Since, in the cassette format, the left and right stereo channels are recorded on immediately adjacent tracks, "crosstalk" and "channel separation" should mean the same thing—but, as we'll see, they usually don't. The spacing between the two stereo tracks on a cassette is extremely close (0.014 inch), so it is difficult to keep some of the signal intended for one channel from creeping into the other; this reduces stereo separation, and you will see specification numbers for "crosstalk" in the general range of 25 to 35 dB.

Like their professional counterparts, the first home stereo recorders (open-reel, in those days) used “half-track” heads, so the whole width of the tape was used for a single stereo program. Then came quarter-track stereo, which is now the standard consumer open-reel format. Putting the left- and right-channel head elements in the quarter-track format immediately adjacent to each other would have required a track-to-track spacing of about 25 mils (0.025 inch), and in those early days it was impossible to maintain adequate channel separation during recording with a spacing that close. (The problem was with the read-out heads, since high bias currents as well as fairly large audio currents flow through their windings.) So, instead of adjacent tracks for the left and right channels, the use of alternate tracks was decreed: one and three for side one, four and two for side two. In this way, stereo-separation figures continued to be acceptable, and the "crosstalk" from an adjacent track became entirely a playback factor, which was easier to manage. That is why "crosstalk" came to be used in the sense of "interference from material recorded on the other side," which, while it still has to do with the adjacent track, is entirely different from "channel separation."

Today, with cassettes the dominant format, manufacturers have been determined to use the term "crosstalk" to denote either the purely electrical isolation between channels in the deck's electronics section (a rather meaningless specification, since the problem is with interaction within the head, not the electronics) or the amount of isolation between side-one and side-two material. Because the safety island of unrecorded material between sides one and two is much larger (about 0.035 inch) than between the adjacent tracks of left and right channels on the same side, the crosstalk number can be very much larger (typically in the 50- to 65-dB range). The foregoing should explain two things: first, why most cassette-deck manufacturers simply don't specify either crosstalk or channel separation; second, why a channel-separation or crosstalk specification in the 25- to 35-dB range (give or take a few decibels) is credible and likely to represent the actual performance of a deck, while the very big numbers in the 55- to 65-dB range refer only to potential interference from the pair of tracks on stereo side one with the pair on side two and nothing to do with separation between the right and left stereo channels.

Because the number of questions we receive each month is greater than we can reply to individually, only those letters selected for use in this column can be answered. Sorry!

Fermentation: The miracle that turns the juice of the grape into wine.

Although it is an oft-proclaimed truth that fine wine is a living growing thing, nowhere is this more evident than during that critical, and still somewhat mysterious, process called fermentation.

Yeast: The Catalyst

It is possible that a quantity of fine grapes crushed and left to themselves in an open container will, in time, ferment and yield an acceptable wine. It is probable, however, that these same grapes will yield a wine not so pleasant.

Which it will become depends on the vagaries of simple, one-celled plants called yeasts which are found naturally in the bloom on the skins of grapes.

A Louis Pasteur Discovery

Until 1864, wine-making was a matter of uncertainty. But then Louis Pasteur discovered that these yeasts were, indeed, the agents that caused fermentation.

Equally important, he discovered that specific strains with desirable characteristics could be isolated and substituted for the wild yeast in the wine-making process, a major step toward predictable excellence.

Today, our winemakers are devoted to the study of yeasts and to their improvement. Because no one yeast works equally well in every case, we are constantly striving to isolate the ideal yeast for the different varieties of wines.

This development of the specific yeast which maximizes a grape's natural flavor potential is a primary study we have pursued for years.

To achieve a wine of predictable excellence year after year, we developed the first successful dehydration of pure wine yeast. The dehydrated form maintains the consistent purity from year to year and provides us with a "cleaner" wine that is truer in flavor and fragrance to the grape.

Some Like It Cold

During fermentation, heat is created. If we permit the fermenting juice or "must" to attain a temperature of only ninety degrees, the yeast can be injured. At one-hundred degrees, most yeast will die.

Over the years, we have developed precise cooling methods for keeping the fermenting liquid at the optimum lower temperature. This varies from grape to grape. For example, the Sauvignon Blanc, French Colombard, Chenin Blanc, Riesling or Chardonnay we use for our white wines are far more delicate and sensitive to temperature than their more robust red cousins.

We determined that fermenting them at a cooler temperature slows the change from juice to wine and protects the delicacy of the resultant wine.

In this cooled state, the juice can ferment as long as fourteen days rather than three or four.

The Test Fermentation

Knowing the precise moment to draw the wine is a combination of the skill and art of our winemakers. In some cases we actually take grape samples a few days before harvest and, on a small scale, proceed with fermentation. This gives us a preview of what to expect, and, we then make whatever adjustments necessary to produce the most consistently excellent wine.

The Reason For All This Care

It is only by utilizing all the skills gained in many years of work and study that we can achieve our intent: to bring you the finest wines that we, or anyone else, can provide.

Ernest & Julio Gallo, Modesto, California
CONGRESSIONAL ACTION ON RFI

In a special report dated April 18, the Institute of High Fidelity issued a call to arms alerting its members to the possible consequences of the radio-frequency-interference (RFI) legislation now before the Congress. (RFI is what happens when an audio system accidentally picks up CB and/or amateur-radio broadcasts.)

Two bills pending in the Senate and one in the House concern themselves directly with RFI. According to the IHF report, Senate Bill 864, introduced by Senator Barry Goldwater, would empower the Federal Communications Commission to "prescribe specific kinds of filters for high-fidelity and other equipment to prevent the reception of r.f. signals." House Bill 8496 (introduced by Representative Charles A. Vanik) would seek permission for the FCC to create "minimum standards" for the rejection of RFI by consumer entertainment products. A third House bill, Representative Adam Benjamin Jr.'s Bill 8079, is identical to Goldwater's Senate bill.

The IHF's concern is threefold: (1) that any RFI "cures" required in audio equipment as a result of such legislation's passage will be far from effective in many cases; (2) that legislators, administrators, and others unqualified to dictate high-fidelity design details will become involved in doing so; (3) that the performance of high-fidelity equipment will be impaired by the application of poorly engineered or inappropriate "cures." In the report, IHF technical director Leonard Feldman cites specific difficulties that could arise from the use of simple filtering devices at the interfaces of amplifiers and speakers, microphones and tape decks, phono cartridges and preamplifiers, and antennas and tuners.

The RFI legislation is generally given little chance of passing during the present congressional term, but the IHF anticipates its reintroduction next term, citing the approximate 150,000 RFI complaints received by the FCC last year. (The FCC estimates that this figure represents only about 7 per cent of the actual RFI problems being encountered in the U.S.) Also, continued vigorous support is expected from the bills' sponsors such as Senator Goldwater, well known as an amateur-radio enthusiast. A further cause for concern is that RFI regulations may find their way into a reworking of the Communications Act of 1934 that has been undertaken by Representative Lionel Van Deerlin.

The IHF notes that organized amateur-radio and CB groups are lobbying vigorously for passage of the RFI legislation in one form or another, and it is urging its members to make their views known as well. For others wishing to do the same, the addresses of the congressional committees dealing with RFI legislation are:

- Senate Sub-Committee on Communications (under Committee on Commerce, Science and Transportation), Suite 2502, Dirksen Senate Office Building, Washington, D.C. 20510. Howard Cannon (D-Nev.), Chairman; Robert P. Griffin (R-Mich.), Ranking Minority Member.
- House of Representatives Sub-Committee on Communications (under Interstate and Foreign Commerce Committee), Suite 2125, Rayburn House Office Building, Washington, D.C. 20515. Lionel Van Deerlin (D-Calif.), Chairman; Louis Frey Jr. (R-Fla.), Ranking Minority Member.

-Ralph Hodges
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- Recording and Reproducing Styli
- Pickups
- Magnetic Recording
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This giant reference book is over 3" thick, and packed with 1,757 illustrated pages. It features 3,645 questions and answers and a 50 page "instant-find" index for subject identification. It is truly the big one in audio electronics and it puts all the information you'll ever need right at your fingertips, chapter by chapter.

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Yes, please rush me the AUDIO CYCLOPEDIA (#21455) for my free trial. I understand if not completely satisfied, I may return it within 15 days, and owe nothing. Otherwise, it's mine to keep for only $39.95 plus postage and handling and local taxes (where applicable). And, whatever I decide, a copy of "The ABC's of Tape Recording" (valued at $3.50) is mine free!

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Indianapolis, Indiana 46206

A Division of Howard W. Sams & Co., Inc.
A comparison between products, or even a valid appraisal of a single product, from the published specifications alone is possible only when standardized methods have been used to derive those specifications. In the U.S. high-fidelity industry, only amplifiers and tuners—the purely electronic components—are covered by universally accepted standards. These have been issued by the Institute of High Fidelity (IHF), and they are the result of years of work by its technical committees.

The first IHF amplifier standard (IHF-M-A-200, 1958) was superseded in 1966 by IHF-A-201, which covered stereo and other multichannel amplifiers, and reflected a higher degree of measurement sophistication as well. In recent years our understanding of the relationship of certain measured characteristics to the subjective sound of an amplifier has been greatly expanded, and government-mandated power-rating systems have made some aspects of the 1966 standard obsolete.

During the past three years, an IHF committee chaired by Edward J. Foster (and among whose members were STEREO REVIEW’s Technical Director Larry Klein and myself) has been engaged in completely revising the amplifier standard. Many company engineers (and a few editors and writers) contributed their insights and energies to preparing the new standard. The document represents a true group effort free of special pleading and technical quirksiness. By the time this appears in print, it will probably have been approved by the IHF membership and be officially in effect. Bearing the title “Standard Methods of Measurement for Audio Amplifiers IHF-A-202, 1978,” it consists of some thirty-nine pages of detailed test conditions and procedures covering every aspect of amplifier performance that is considered to be significant for high-fidelity applications.

Although space does not permit a detailed description of the whole standard, I would like to comment on some of the respects in which it differs from the one it replaces. The purpose of IHF-A-202 is to bring measurements into closer agreement with the reality of what the ear responds to. For example, amplifier noise measurements will now be made with input loads that simulate actual conditions instead of the unrealistic short-circuited input that has been widely used in the past (though not by Hirsch-Houck Labs). In fact, the noise level of a phono preamplifier will now be measured while loaded with a simulated “cartridge” having specified values of inductance, resistance, and capacitance, and the output-noise measurements will be A-weighted to give a better correlation with the subjective effect. Also for the first time, both electrical characteristics—resistance and capacitance—of a phono input must be specified, making it possible to match a preamplifier to a cartridge accurately. Failure to specify a preamp’s input characteristics will be presumptive evidence that it has a complex input impedance whose frequency characteristics are not predictable from the specified input capacitance/resistance combination, and hence that it may interact unpredictably with some cartridges.

Changes in available instrumentation over the past decade are also recognized in the new standard. A clear distinction is made between the distortion readings obtained with a spectrum analyzer (generally the preferred instrument) and a conventional null-type distortion analyzer. A spectrum-analyzer measurement is to be identified as “total harmonic distortion” (THD). The reading of a distortion meter will be referred to as “total harmonic distortion plus noise” (THD + N).

The new standard appears to have come full circle in the matter of dynamic-power measurement. Some years ago, it was common practice to rate amplifiers in terms of dynamic-power output (or music power) in addition to continuous-power output. Although measurement conditions for both these tests were in the then-current IHF standards, they were almost never adhered to, and the gross abuse of these ratings in advertising led to the FTC action of a few years ago that established continuous-power output, over a specified bandwidth and with a specified maximum distortion, as the primary rating. Dynamic-power measurements have virtually disappeared since that time, but there is good reason to think that they can be useful and valid criteria for judging amplifier performance. The 1978 standard restores them in the form of a dynamic-headroom rating (DH). In essence this is a measure of how much power beyond its rated continuous-power output an amplifier can deliver for a given short time. The DH rating is expressed in decibels, and, as the name indicates, it is a measure of the headroom, or reserve power, available for brief program transients. We also now have a clipping-headroom rating, which is the ratio of the continuous-power output at clipping to the rated continuous-power output, expressed in decibels and normally measured at 1,000 Hz. We have been making and referring to this measurement (though not by its new name) for many years.

In all, there are some twenty-eight ratings covered by IHF-A-202, and no one expects that all of them will be applied to any given product. However, in order for an amplifier to carry an IHF rating, a few preferred specifications are necessary, in a stated order of preference. For a power amplifier, they are:

- a. Continuous Average Power Output
- b. Dynamic Headroom
- c. Frequency Response
d. Sensitivity
e. A-weighted Signal-to-Noise Ratio.

In the case of a preamplifier, they are:

- a. Frequency Response
- b. Maximum Voltage Output
c. Total Harmonic Distortion
d. Sensitivity
e. A-weighted Signal-to-Noise Ratio
f. Maximum Input Signal
g. Input Impedance.
All other ratings are secondary disclosures, to be included at the option of the manufacturer. Some of them are so commonplace that we have come to think of them as being basic specifications—for example, tone-control and filter responses and IM distortion.

As regular readers of Stereo Review test reports will know, we have for many years been using some measurements that are now part of the new IHF standard. In the absence of industry standards, we were forced to establish our own standards when we began testing hi-fi components more than twenty years ago. Many of these have been incorporated in IHF-A-202, with minor modifications. For example, we have always referred sensitivity, noise, and output power or voltage to fixed reference levels of 10 watts or 1 volt instead of to a manufacturer's own output rating. This is the only way in which amplifiers of different power ratings can be compared.

"The purpose of IHF-A-202 is to bring measurements into closer agreement with the reality of what the ear responds to."

Since the signal source and speakers have no way of knowing what the maximum output capability of an amplifier may be (to say nothing of its manufacturer's advertised ratings), In the new IHF standard, these reference levels are 1 watt and 0.3 volt, which are related to our former levels by factors of 10 and 6 dB, respectively. Similarly, we have always used a standard gain setting for measuring amplifier S/N instead of setting the gain to maximum. The standard gains specified in the new IHF standard are identical to those we have been using for years.

We will probably not be making an abrupt transition from the old methods of measurement to those of the new standard (for experience with the IHF tuner standard means anything, it will be at least a year or two before a large segment of the audio industry converts to rating its products by the new standard). Instead, there will be a gradual changeover, beginning with the new reference-output levels and culminating in full compliance with the standard over a period of months. Where there are significant deviations between our test methods and the IHF standard, they will be plainly spelled out. In a future issue we will describe in detail how we actually test an amplifier.

The new Acoustic Research AR9 speaker system seems at first glance to follow traditional AR design philosophy (it uses an acoustic-suspension woofer, for example), but nevertheless it represents a departure from that company's previous practice. For one thing, this floor-standing four-way speaker system is (argue today's standards (especially for an AR speaker), having an internal volume of 120 liters, or 4.24 cubic feet. AR designed the AR9 to have the flattest, widest frequency response and greatest power-handling capability of any speaker it has ever made. The company claims that the AR9 is "as close to the optimum speaker system as can be designed under the present state of the art."

The low-frequency portion of the AR9 consists of a pair of 12-inch acoustic-suspension woofers mounted on opposite sides of the columnar cabinet as close as possible to the floor and rear wall surfaces. The speaker is meant to be placed as close as possible to the rear wall in order to prevent the cancellation of mid-bass response that occurs when a conventional front-facing woofer is used in a floor-mounted speaker system. (This is caused by out-of-phase reflected waves from the floor or wall boundaries.) At 200 Hz there is a crossover to a front-mounted 8-inch cone driver placed 28 inches above the floor on the center line of the panel. This is installed with in its own sub-enclosure inside the main cabinet, and the reflections of its output from the wall and floor occur below its normal operating range.

Above the lower mid-range driver and on the same vertical line are two dome-type radiators at approximately ear height for a seated listener. The upper-mid-range unit, which takes over from the 8-inch driver at 1,200 Hz, is a fully sealed 11/2-inch-diameter dome driver. Its diaphragm is surrounded by a metal ring that AR calls a "semi-horn": they claim it provides better coupling to the air in the upper part of the driver's operating range (above 3,000 Hz). At 7,000 Hz there is another crossover, to the 3/4-inch-diameter sealed dome-type tweeter. Both of the high-frequency dome speakers employ high-temperature magnetic fluid for heat conduction and mechanical damping of their voice coils.

Below the 8-inch lower-mid-range driver are three small toggle switches that adjust, respectively, the output levels from the tweeter, upper-mid-range, and lower-mid-range speakers. Each has three positions and is able to reduce the output of its driver by either 3 or 6 dB from the maximum (0-dB) level, which is the nominally "flat" condition.

Behind the front grille of the cabinet is what AR calls an "Acoustic Blanket," which is an absorbent fiber sheet covering most of the area occupied by the three front-mounted drivers, with clearance holes for the drivers themselves. This "blanket" absorbs sound waves that would otherwise be reflected from the front surface of the enclosure and the grille edges. This smooths out the overall frequency response at different angles to the front-grip. (Continued overleaf)
 speaker axis and thus improves the stereo imaging. 

The AR9 has a nominal system impedance of 4 ohms (3.2 ohms minimum) and is rated for use with amplifiers delivering up to 400 watts per channel. In spite of its high power-handling ability, the AR9 is actually slightly more efficient than some of the older AR speakers. It is rated to deliver a sound pressure level (SPL) of 87 dB at a distance of 1 meter when driven by 1 watt. The low-frequency response is rated to be down 3 dB at 28 Hz; the AR9 does not have the usual "20 to 20,000 Hz" frequency-response rating that is a meaningless appendage to many loudspeaker specification sheets.

The handsomely finished walnut-veneer cabinet of the AR9 has a black, snap-on cloth grille that covers almost the entire front surface of the cabinet and two smaller grilles that cover the woofers on the sides. In the rear are four binding posts, two for the woofers and two for the remainder of the system. This permits bi-amplified operation if desired; nominally the two pairs of terminals are connected by jumpers. The AR9 is 52% inches high, 15 inches wide, and 15 inches deep. It weighs 130 pounds (excluding the shipping carton). Price: $650.

- Laboratory Measurements. Measuring the frequency response of the AR9 in our test room gave us new insights into how uniform the acoustic output of a speaker can actually be at the listener's ears in a normally furnished room. Our measurements also correlated well with the reverberant-room response curves that AR had run on the identical units we tested. We were equally impressed by the perfect "splice" of our mid-range/high-frequency response curve to our close-miked bass-response curve.

The frequency response of the AR9 was remarkably smooth—within ±2 dB from 25 to 12,000 Hz—even measured by our unconventional test method. It rose slightly at the high end, to about +4 dB at ±15,000 Hz (which is the upper limit of our microphone calibration). We are quite sure that this rise was caused by an imperfect correction on our part to the microphone and room response, and we have no doubt that the true response of the speaker would fall within the ±2-dB range shown on the AR reverberant-room measurements from 500 to 19,000 Hz (and, for that matter, down to the lowest audible octave).

The low-frequency distortion, as might have been expected from a pair of 12-inch acoustic-suspension woofers in a correspondingly large enclosure, was very low. At a constant 2.8 volt drive level (2 watts into the nominal 4-ohm impedance), the distortion was well under 0.5 per cent from 100 Hz to 20 Hz, reaching 1.3 per cent at 25 Hz and 2.5 per cent at 20 Hz. With a 10-dB power increase (to the equivalent of 20 watts) the distortion was typically about 0.5 per cent down to 50 Hz, reaching 3 per cent at 30 Hz and 6.7 per cent at 20 Hz.

The AR9 delivered its rated 87-dB SPL at a 1-meter distance when driven by 1 watt of random noise in the octave centered at 1,000 Hz. The frequency-balance switches had approximately the rated effects. The tweeter switch controlled the output above 4,000 Hz, the upper-mid-range switch operated between 1,000 and 10,000 Hz with most of its effect between 1,500 and 5,000 Hz, and the lower-mid-range switch affected the output between 100 and 1,200 Hz. The tone-burst response was very good, especially considering that the AR9 is a four-way system and therefore has more than one driver operating over a considerable part of the frequency range, which usually causes acoustic-interference effects that can complicate a tone-burst response.

The impedance curve of the speaker shows evidence of the "tailoring" action of the crossover network. The maximum impedance values of 8 and 10 ohms were reached at 27 and 750 Hz, respectively. Elsewhere the measured impedance was between 3 and 5

- Comment. First, a note on the handling and installation of these massive speakers. Large and heavy as they are, they can be "rocked" and slid along on a carpeted floor with ease. Only the initial jolt is enough to move most of the speakers that will require two people. And, although they are supposed to be placed within a couple of inches of the rear wall if possible, we could not get them much closer than within a foot or so in our room. This did not seem to have any harmful effect on the sound.

That sound is perhaps best described as a distillation and refinement of the traditional "AR sound" familiar to most serious audiophiles. From the beginning, AR speakers have been noted for their smoothness, absence of harshness or other unpleasant colorations, and, most particularly, carrying a distortion in the deep bass. On the other hand, some listeners have criticized the earlier AR speakers (not the current models) for reduced energy in the upper octaves of the audio range, which made them sound somewhat dull or muted.

In the AR9, we think, these criticisms have been very effectively dealt with. Not only is the bass deeper, flatter, and more extended than that of any other speaker we have tested, but there is definitely no lack of output in any part of the audible spectrum. The key adjectives that could be used to describe the AR9 sound (besides the usual "smooth," "musical," etc.) are balance and unity. There is literally no clue that the sound emanates from an array of drivers spanning a considerable physical area. It is simply there, with practically no indication that it comes from a loudspeaker. Even at low volume levels the deep bass can be felt, rather than heard, and at times it seems almost invisible in the background sense that it is lurking down there at the bottom of the audio range, ready to be heard or felt if the occasion demands. When one switches to another speaker (almost any other) this sensation usually disappears.

In this respect, the AR9 bass reminds us of the contribution a good subwoofer can make to the sound of a more modestly endowed speaker system, except that in this case the overall balance is inherently set at the correct value.

In view of the response we measured at our normal listening position, it occurred to us that we were probably hearing for the first time that a truly flat response sounds like in our reasonably normal listening room. If that is so (and it is admittedly conjectural), we can report that "flat response" doesn't provide any special effects (just as a "flat" amplifier or phono cartridge has no sound of its own). This may seem anticlimactic, but it is really quite logical. This speaker gives the listener an opportunity to hear just what a particular record, radio broadcast, or other program sounds like with a minimum of modification from the speaker or the listening room. Judging from our limited experience with the AR9, these programs vary in quality from excellent to terrible—but we knew that before we started!

As is our custom, we used the AR9's for some time, switching between them and other speakers on hand for testing, as well as our own systems, by the now-familiar "The AR9's" method. It should be no surprise that the latter came closest to sounding like an AR9, although it was noticeably less powerful in the deep bass. Although the AR9 can handle considerable power, one should bear in mind that it is a low-impedance speaker, so most amplifiers will deliver at least 50 per cent more power to

The low tar cigarette that’s all Winston. All taste.
it than to an ordinary 8-ohm speaker. It should be perfectly safe, at almost any listening level, to use a 200-watt amplifier, most of which can deliver 300 to 350 watts at a 3- or 4-ohm load. But be careful with the handful of giant amplifiers rated at up to 500 watts per channel into 8-ohm loads. They can damage this speaker (or any other) if used carelessly, and the cleanliness of the sound from the AR9 tempts one to turn up the gain "just a little more." Fortunately, the AR9 is capable of delivering an awesome sound level without recourse to such power extremes.

Recalling the AR goal of an "optimum" design, we would like to point out that this means "best" in the sense of representing the most suitable compromise between the many mutually exclusive performance and cost factors involved in any given speaker design. The designers have certainly come very close to achieving their aim, even though not everyone would agree with all their choices (in our case, for example, we find the AR9 just too big and visually overpowering for our listening room—but that is our problem!).

The AR9 seems to us to be just about what AR claims it to be—a "state-of-the-art" speaker system in respect to frequency range, flatness, and distortion, yet one that can be driven effectively by almost any good amplifier or receiver. There are perhaps some exotic speakers that come close to rivaling the AR9 in one or more of its characteristics, but not in all of them—and certainly not at its price (although we doubt that AR built this speaker to fit a particular price category). This is unquestionably the finest speaker AR has ever built.

Circle 105 on reader service card

THE best of today's stereo preamplifiers are so refined that audible differences between them are more likely to reflect input or output interface problems (with the phono cartridge or the power amplifier) than any intrinsic qualities of the preamplifiers themselves. A young engineer named Tomlinson Holman has devoted much of the past five years to investigating these interface problems, first as chief electrical engineer at Advent Corporation and more recently as a principal of the Apt/Holman Corporation. The Apt/Holman preamplifier is the tangible result of his investigations.

Major design goals in the creation of the Apt/Holman preamplifier were to eliminate or minimize all undesired interactions between the preamplifier and the rest of the music system, to provide state-of-the-art electrical performance, and to include every operating convenience that might be expected in a sophisticated audio-control center without any of the unwanted side effects that often mar the utility of such control features. In line with Holman's engineering "philosophy," the new preamplifier carries what are probably the most detailed specifications we have ever seen for a product of this type. Nothing is left to the imagination regarding its performance—or how to verify that performance through measurements.

Unconventional circuit features abound in the Apt/Holman preamplifier, from the low-noise differential phono-preamplifier stage employing a dissimilar pair of FET and bipolar transistors to the feedback-type volume control, whose low impedance of 10,000 ohms minimizes noise. Recognizing that signals outside the audible frequency range are responsible for many audible ills of hi-fi reproduction, Holman has restricted the bandwidth of this preamplifier with an 18-dB-per-octave infrasonic filter that has a negligible effect at 20 Hz while attenuating the response by more than 30 dB at 3 Hz and an ultrasonic filter that provides a response of -3 dB at 40 kHz and -18 dB at 100 kHz. A front-panel switch converts the latter into a low-pass audio filter, cutting off at 8,000 Hz at 18 dB per octave.

Regardless of the merits of loudness compensation, its execution in most amplifiers leaves much to be desired—in fact, it is likely to be completely useless for its intended purpose. Holman's approach to this problem was to design the bass tone-control characteristics so that they approximate the requirements revealed by the latest psychoacoustic research. The shape of the bass contours should make it possible for a critical listener to achieve better compensation than is provided by most conventional loudness controls. These bass-response curves affect frequencies below 400 Hz and differ from the usual tone-control curves. A front-panel switch converts the bass control from its "normal" response to a "shelved" response, which Holman feels is most useful for correcting response aberrations in recordings and loudspeakers. The treble control has a shelved characteristic at all times.

The Apt/Holman preamplifier has so many novel and thoughtful features that there is not space enough to list them. We recommend reading Apt's technical-data pamphlet; it tells more in a few pages than most technical descriptions manage in several times the space. The Apt preamplifier is compact, measuring about 3½ inches high, 15 inches wide, and 9½ inches deep. It weighs 10 pounds. The gray finish, not as stark as the currently popular all-black look of some components, is nevertheless very businesslike in its appearance (the colors are similar to those used on many GenRad test instruments). The input selector has positions for two magnetic phono cartridges and three high-level sources. The phono 1 input has a resistance of either 47,000 or 100,000 ohms, selected by a push-button in the rear of the preamplifier. A screwdriver-operated switch in the rear selects a phono-input capacitance of 50, 100, 200, 300, or 400 picofarads (pF) to match the load requirements of a wide variety of cartridges and record players. The phono 2 input has a fixed termination of 47,000 ohms and 100 pF.

The volume control is a thirty-two-step detented attenuator with individually trimmed thick-film resistors that maintain close matching between the channels, as well as isolation. There are four knobs, with center detents, control balance, bass and treble, and mode. The last is a unique and useful feature of the Apt/Holman preamplifier, providing a smooth transition from full stereo operation (with the knob centered) to mono (L + R) at its counterclockwise limit or out-of-phase (L - R) operation at its clockwise limit. This can be used to alter spatial properties in a stereo program, to cancel out a center-recorded soloist, to make precise channel-balance adjustments of phono-cartridge outputs (separate screwdriver balance adjustments for the two cartridges are accessible through small holes on the left side of the cabinet), and even as an aural multipath-distortion indicator and tuning aid for FM reception.

Small toggle switches below the knobs provide for inserting an external processor into the signal path (convenient for noise reducers, equalizers, and similar accessories), either channeling the left or the right input to both outputs or interchanging their orientation, connecting the high-cut filter, bypassing the tone controls and filter, and changing the bass tone-control response from the "normal" to the "shelved" characteristic. The remaining controls are pushbuttons with mechanically operated center "flags" that change color from black to white when a (Continued on page 38)
Motor Trend Magazine's Import Car of the Year. The Toyota Celica: a car which meets or exceeds all 1980 Federal fuel economy and safety standards. And the car which best met Motor Trend's criteria for Import Car of the Year. A car with comfort, style, efficiency and durability. The 1978 Celica GT and ST Sport Coupes and GT Liftback (not pictured).

Grand Touring in the future. Aerodynamic improvements have contributed to increased interior room (4" at shoulders), stability, performance and decreased interior noise. The cockpit instruments demonstrate functional engineering at its finest. The Celica's handling formula includes MacPherson strut front suspension, steel belted radials and power assisted front disc brakes.

Grand Touring comfort in the future. The reclining driver's bucket seat features a newly designed adjustable lumbar support. Visibility is enhanced by increased glass area. And the trunk has been increased by 30%.

Value in the future. The Celica is durable, inexpensive and gets great gas mileage. In EPA tests the Celica was rated at 34 mpg highway, 20 mpg city. These EPA ratings with 5-speed overdrive transmission are estimates. Your mileage will vary depending on your driving habits and your car's condition and equipment. California ratings will be lower. The 1978 Celica. The car of the future. The car of the year.

CIRCLE NO. 55 ON READER SERVICE CARD
button is engaged. Tape monitoring from either of two tape decks can be selected by pressing the appropriate button, and, two others cross-connect the tape decks for copying from either machine to the other. A MUTE button silences the audio outputs (but not the headphone jack on the front panel), using the built-in relay that also blocks turn-on and turn-off transients from reaching the power amplifier (so as to keep the outputs when the line voltage drops below 95 volts). The headphone jack is driven by a separate amplifier stage and has sufficient output to drive even high-impedance (non-electrostatic) phones to a good listening level. A red power button and a L.E.D. pilot light complete the front-panel controls. In the rear of the preamplifier are five a.c. convenience outlets, three of which are switched. The power switch can handle up to 10 amperes, so that even a high-power amplifier can be controlled from the preamplifier.

In addition to these features, the Apt/Holman preamplifier is noteworthy for having extensive and complete isolation of all signal circuits from undesired switching, crosstalk, and loading effects. Each tape-recording output is driven by its own buffer amplifier, and all unselected signal inputs are terminated in 2,200 ohms. A specially designed input-selector switch provides nearly total isolation between the input program sources, ending such common problems as crosstalk into a phono input from a tuner, which sometimes occurs with other amplifiers. The price of the Apt/Holman preamplifier is $447.

**Laboratory Measurements.** We tested the Apt/Holman preamplifier with the new IFH standard load (10,000 ohms in parallel with 1,000 pf). The IFH reference-gain settings are identical to the values we formerly used, but the new reference output is 0.5 instead of 1 volt (we also measured distortion at the preamplifier's rated 2-volt output).

The high-level input sensitivity was 63 millivolts, and the phono-input sensitivity was 1 millivolt. The output noise was below our measurement limit of 100 microvolts (~80 dB) through a high-level input, and it was ~78 dB (unweighted) through a phono input. The rated noise levels, with A-weighting, are considerably lower than these, but they could not be measured with our equipment (for example, the typical noise output of the preamp is rated at 10 microvolts or less).

The output clipped at 8.2 volts (rated at 7.5 volts). Distortion (THD) at the rated 2-volt output was about 0.01 percent at 1,000 and 15,000 Hz and 0.038 percent at 20 Hz (a large part of the latter figure represents the residual distortion of our signal source). At 5 volts output the distortion was not detectably different, and even at the rated clipping output of 7.5 volts it had not increased significantly.

The phono input overloaded at a safe 140 millivolts (at 1,000 Hz). Crosstalk from a high-level input to phono was unmeasurable (less than ~90 dB) even at 20,000 Hz. We also measured the phono-preamplifier input impedance, as required by the IFH standard. The resistive component was 48,000 or 100,000 ohms, depending on the setting of the switch in the rear of the unit. The capacitance measured at the phono input was close to the indicated values—specifically, 56, 113, 200, 296, and 412 pf.

The phono equalization was within ±0.5 dB of the extended RIAA response curve from 20 to 20,000 Hz. There was no detectable change in the response when it was measured through the inductance of a typical phono cartridge. The basic preamplifier frequency response was flat within ±0.4 dB from 20 to 20,000 Hz with the tone controls centered (but not bypassed), and the high-cut filter response was down 3 dB at 8,600 Hz. We could not measure the response of the infrasonic filter since most of its operation was below our measurement limit.

The tone controls had the specified characteristics in both modes of operation. The "normal" mode did prove to be quite effective as a loudness-compensating system, but the need to make separate adjustments of volume and tone controls tended to militate against regular use of this feature (which may have been all to the good).

**Comment.** Comment is hardly required in respect to the electrical performance of the Apt/Holman preamplifier. Within our measurement capabilities, it easily met or surpassed all its specifications. Measurements aside, we were able to evaluate the preamplifier most meaningfully by using it. We are happy to report that it was completely lacking in unpleasant surprises. Perhaps there is some combination of input and output conditions that could give an unwanted response, but we doubt it. At any rate, we didn't uncover any. Everything worked with the smoothness and positive action that we expect from a top-quality component. In particular, we checked for audible noise, since we had been unable to measure it. At maximum gain (through the phono input), with some combinations of power amplifier and speakers, one might be able to hear a faint hiss close to the speakers. At normal operating levels and up to about 10 or 15 dB above normal, as well as through the high-level inputs under any conditions, the background is totally silent.

Switching through unused inputs did not produce any clicks or noises. Needless to say, there was no audible crosstalk between inputs under any conditions. It was interesting to experiment with the MODE switch, and we put the claim of aural FM-multipath indication to the test with generally good results. The headphone output was very good, producing a very loud listening level in 200-ohm phones. In fact, the preamplifier would make an ideal control center (without a power amplifier) for someone who does all his music listening through headphones.

We have deliberately saved our comments on the "sound" of the preamplifier for the last. Mr. Holman demonstrated to us, on our own premises and to our complete satisfaction, that with some cartridges and records the Apt/Holman preamplifier produces a slightly increased extreme top-end response in a critical A-B comparison with some other highly regarded preamplifiers (which are considerably more expensive than the Apt unit). This is entirely explainable by the total absence of interaction between the cartridge and the Apt/Holman preamplifier and the moderate but audibly detectable amount of such interaction with the other preamplifiers. Granting that this is so, how important is it? Holman says, and we agree, that with another type of cartridge, one less sensitive to loading and/or having less effect on the other preamplifiers by virtue of a lower coil inductance, the difference would be negligible.

Without denigrating Holman's achievement in creating this preamplifier (if there is one that is better in any substantive respect, we have yet to hear of it), we must caution against expecting a dramatic improvement when switching to the Apt/Holman preamp.

(Continued on page 40)
Music you never knew was there.

There are probably beautiful musical passages on many of your records that you've never heard. And you need not, unless your cartridge is sensitive enough to clearly reveal all the subtle harmonies within the audio spectrum.

Today's sophisticated direct to disc technology has raised the quality of disc recording to a new state of the art. You need a cartridge that does justice to these fine recordings; an ADC cartridge with an ADC cartridge you will find the state of the art has been brought almost to the state of perfection. Long known by audiophiles for incredibly pure sound reproduction, ADC cartridges have also proven the amazingly low-record wear. This year they have even surpassed themselves.

First, there's the remarkable new ZLM with the unique AURIC C stylus. It combines the better stereo reproduction of the elliptical, stylus shape with the longer, lower wearing vertical bearing radius of the Shibata shape. As a result, sound reproduction is completely transparent and clean. Individual instrument placement is more easily identifiable. Among other things, response is flat -1 dB to 20kHz and ± 0.1 dB to 25kHz. It tracks at 0.002%.

Then there's the new XLM MK II with the same reduced mass, tapered cantilever but with a more elliptical shaped needle diamond tip. It has 53% lower mass than our previously lowest mass XLM MK II. It tracks at 0.001%.

The QLM 36 MK III with the innovative Duis elliptical needle up to 20 kHz and 1.5 dB to 25 kHz. It tracks at 0.002%.

The QLM 54 MK III offers elliptical shapes and tracks as low as 0.0015%.

1 gram with flat response out to 20kHz ± 2 dB.

The QLM 52 MK III is a 2-gram elliptica with great sound. It's one of the best budget elliptica around.

And ideal for automatic changers, the QLM 30 MK III is a 3-5 gram conical stylus that is compatible with a wide range of stereo equipment.

The ADC cartridges. Think about it; you probably can't even know what you're missing.

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CIRCLE NO. 6 ON READER SERVICE CARD
Satin moving-coil phono cartridges, distributed in this country by Osawa, are unique in having replaceable styli. They are also unusual in their high output—nominally 2 millivolts (mV)—which makes use of a head amplifier (pre-preamplifier) unnecessary. A Satin cartridge can be connected directly to any preamplifier’s magnetic-phono input, and because of its low internal impedance (about 30 ohms) its performance is totally independent of the preamp’s external load resistance and capacitance.

The stylus of the Satin cartridge can be replaced by the user because, unlike other moving-coil cartridges, the coils are entirely within the body of the cartridge and are coupled to the stylus cantilever through a Y-shaped yoke. The cantilever is also supported by a second yoke-like structure, made of photostiched beryllium, and a beryllium tension wire. According to the manufacturer, this construction maintains the stylus pivot at a precisely determined location and prevents the stylus from rotating about the cantilever axis as it traces the groove.

The aluminum ribbon-wire coils are wound in a flat “pancake” shape. Each coil is only 10 x 100 microns (0.4 x 4 mils), and they are mounted in very narrow gaps in the magnetic circuit of a powerful magnet. Satin claims that their flux density of more than 15,000 gauss is more than seven times that used in conventional moving-coil cartridges, which accounts for the higher output of the Satin cartridge. The flat coils are damped by an elastic fluid that apparently fills the gap between the coil and pole piece, as well as by electromagnetic damping.

To summarize, the special design features of Satin cartridges include a single-point cantilever pivot, complete absence of moving-iron components in the magnetic circuits, a very high flux density for high output voltage, and internal viscous and magnetic damping. There are four models in the Satin line, including two with Shibata styli for playing CD-4 records. We tested their top stereo-only model, the 18E, which has a 0.2 x 0.8-mil elliptical diamond stylus on an aluminum-alloy cantilever. The rated frequency response is 10 to 30,000 Hz (no tolerance given), with 30 dB of channel separation at 1,000 Hz. The rated compliance of the stylus system is $15 \times 10^{-5}$ cm/dyne, the recommended tracking-force range is from 0.75 to 1.5 grams, and the output rating is 2 mV ±2 dB at a stylus velocity of 5 centimeters per second (cm/sec). The cartridge weight of 9.5 grams and its standard mounting-center dimension of 1/2 inch make it compatible with practically any tone arm.

Although the Satin cartridges are not critical as to loading, the manufacturer makes a “damping adapter.” Model SR 60, available. This small passive accessory can be connected in the signal-cable path from the record player to the preamplifier and is inserted into the circuit by a slide switch on its side. So far as we could determine, it simply loads each channel with a 60-ohm resistance, which is intended to improve the damping of the internal high-frequency resonance of the cartridge. The price of the Satin 18E is $225. A replacement stylus (18-NE) is $130 and the SR 60 damping adapter is $35.

- **Laboratory Measurements.** We installed the Satin 18E in the tone arm of a Dual 701 record player for testing and listening. A force of 1.5 grams was used for all tests. The cartridge frequency response, as measured with and without the SR 60 damping adapter. There was no change except for a 3-dB drop in level when the SR 60 was used. A 47,000-ohm standard cartridge load was used for other tests, but we verified that even extreme load variations had no effect whatever on the 18E’s performance.

Cartridge output from the 3,54-cm/sec, 1,000-Hz bands of the CBS STR 100 record was about 1.4 millivolts, with a channel unbalance of 0.5 dB. The SR 60 adapter reduced the output to 1 mV. (This may be slightly low for a preamplifier without a reasonably high phono-input sensitivity.) The vertical stylus angle was 20 degrees, the industry norm. In the Dual arm (whose effective mass of about 20 grams is typical of most modern record-player arms) the stylus compliance resonated at 7 to 8 Hz with an amplitude of 7 to 8 dB.

The low-frequency test tones of the Cook 60 test record could be played up to the 5-gram force, but the 30-cm/sec, 1,000-Hz tones of the Fairchild 101 record far exceeded the amplitude limits of the cartridge, causing severe clipping on both output peaks of the signal. The German Hi Fi Institute test record could be played only up to the 50-micron level before audible mistracking occurred.

Distortion measurements were made with the Shure TTR-102 and TTR-103 records. The 1-MHz distortion from the TTR-102 was low (less than 2 per cent) up to about 18 cm/sec, but the cartridge mistracked severely at higher velocities. The 10.8-kHz tone bursts of the TTR-103 were played with only moderate repetition-rate distortion, which increased from 0.7 per cent at 15 cm/sec to 1.3 per cent at 30 cm/sec.

The frequency response of the Satin 18E was unlike that of some other moving-coil cartridges we have tested. Often the high-frequency response of the stylus system, being unaffected by electrical-circuit conditions, produces a rising top-end response. The response of the 18E tended to resemble that of a moving-magnet cartridge, with a slight dip in output between 6,000 and 10,000 Hz, and a slight rise in the 17,000- to 20,000-Hz range. The overall variation of ±2 dB from 40 to 20,000 Hz is very good for any cartridge. The crossover characteristics of the 18E were exceptionally symmetrical, averaging about 22 dB in the mid-range, 15 to 18 dB at 10,000 Hz, and 14 to 15 dB at 20,000 Hz.

The square-wave response from the CBS STR 112 record was excellent, showing only a...
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It shapes the sound to fit your living room and your music.

The new Bose Model 501 Direct/Reflecting® speaker captures the realism of live music by using room-wall reflections to recreate the balance of reflected and direct sound you hear at a live performance.

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Hear the new Model 501, the speaker that shapes the sound to fit the way you listen to music, at Bose dealers now.

For a detailed description of the Model 501 and the technology behind it, send $1.00 to Bose Corporation, Dept. PVN, The Mountain, Framingham, Mass. 01701. You will receive a full-color Model 501 brochure, a 12-page owner's manual, and a copy of Dr. Amar Bose's article on "Sound Recording and Reproduction," reprinted from Technology Review.

Cabinets are walnut-grain vinyl veneer. Patents issued and pending.
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 recorded velocities much higher than about 15 cm/sec.

Comment. When we played the Shure "Audio Obstacle Course-Era IV" record, with somewhat similar results. The mistracking was audible on level 3 of the bells and level 2 of the flute selection. These results are consistent with the tracking-distortion measurements we made on the cartridge, but they must be interpreted in the light of the special test conditions imposed by these Shure records. They are deliberately recorded at much higher than normal levels so as to overtax almost any cartridge one might use with them (otherwise they would have little value as cartridge-evaluation tools). Although the 18E cannot cope with the extremely high-level, middle- and high-frequency content of these special test records, we never heard any gross or obvious problems when playing a wide variety of standard musical records.

In practice, one rarely encounters recorded velocities much in excess of 15 cm/sec or so, and that is well within the capabilities of the Satin 18E. However, on occasion one can expect to find a high-level transient that will reproduce with a hard or glassy sound through this cartridge (or any other that does not have outstanding tracking ability). Under normal conditions the 18E sounds as smooth and uncolored as most of the other top-quality cartridges we have heard in recent times.

Circle 107 on reader service card
It's hard to find a $1,000 tape deck that doesn't use Maxell. Or a $100 tape deck that shouldn't.

If you spent $1,000 on a tape deck, you'd be concerned with hearing every bit of sound it could procure. That's why owners of the world's best tape decks use Maxell more than any other brand.

But if you're like most people, you don't own the best tape deck in the world and you're probably not using Maxell. And chances are, you're not hearing every bit of sound your tape deck is capable of producing.

Whatever you spent for your tape deck, it's a waste not to get the most out of it. So spend a little more and buy Maxell.

Maxell: You can think of us as expensive tape. Or the cheapest way in the world to get a better sounding system.
en-position step switches, with "flat" center positions. Below each of them is a three-position switch that gives a choice of two turnover frequencies plus an off setting, which allows an instantaneous comparison to be made between the modified and unmodified frequency response. The bass turnover frequencies are 125 and 400 Hz, and the treble turnover frequencies are 2,000 and 8,000 Hz. The speaker switch connects any of three pairs of speakers to the amplifier, singly or in pairs, or shuts them off for headphone listening via the front-panel jack.

Hanging the bottom of the panel is a row of pushbutton switches, as well as a small, non-detent balance control knob. When the power button is pressed, a red light above it comes on. A yellow protection light next to it glows for a few seconds as the protective circuits mute the speaker outputs until the amplifier stabilizes. Should any short circuit or overload capable of damaging either the amplifier or the speakers occur, the speaker outputs are instantly cut off and the yellow light comes back on.

The infrasonic and high-cut filters have 12-dB-per-octave slopes with rated cutoff frequencies of 10 and 6,000 Hz. The next two buttons control mode (mono or stereo) and loudness compensation, followed by a muting switch that reduces the volume by 20 dB.

On the rear apron of the Onkyo A-10, the various basic signal inputs and outputs are augmented by separate preamplifier outputs and power-amplifier inputs joined by removable jumper links. Insulated spring clips are used for the speaker connections. Two of the three a.c. outlets are switched.

Onkyo points out that the A-10 has been designed for greatly reduced interchannel coupling resulting from either a common transformer or power-supply impedance. The power supplies, in addition to being entirely separate for the two channels, have unusually large filter capacitors (a total of 52,000 microfarads) for added ability to handle low-frequency transients. According to Onkyo, this design greatly reduces "dynamic crosstalk" and "dynamic intermodulation," which are described as forms of intermodulation of higher-frequency signals in one channel by the power-supply variations caused by large low-frequency transients in the other channel. The power-amplifier stages are direct-coupled, and the differential phono-preamplifier stages are claimed to give a very low noise level as well as high overload capability. The Onkyo A-10 is a fairly large, heavy amplifier. It is 17¼ inches wide, 6½ inches high, and 15¾ inches deep; it weighs 40 pounds. Price: $449.95.

**Laboratory Measurements.** As might have been expected from the A-10's relatively large size and weight (for its power rating), it became only slightly warm during the one-hour preconditioning period specified by the FTC. The outputs clipped at 105 watts per channel into 8-ohm loads at 1,000 Hz. The clipping outputs into 4 and 16 ohms were 151 and 64 watts, respectively.

At 1,000 Hz the distortion of the A-10 was extremely low, and it decreased steadily as the power output was reduced. It became unmeasurably low (below the noise level) at a 0.1-watt output. At 1 watt it was 0.0025 per cent, increasing to 0.0086 per cent at 95 watts and 0.015 per cent at 100 watts. The THD distortion was between 0.01 and 0.015 per cent for all power outputs from 1 to 90 watts, rising to 0.017 per cent at 100 watts. At very low power outputs, the IM rose, reaching 0.28 per cent at levels of 2 to 3 milliwatts.

At rated power and at half power, the total harmonic distortion was generally between 0.007 and 0.01 per cent from 50 to 1,800 Hz, rising to just under 0.08 per cent at 20,000 Hz. At low frequencies it measured at approximately the residual level of the test equipment—about 0.02 per cent at 20 Hz. The distortion at one-tenth power was only slightly greater than at higher output levels.

At maximum gain, a low-level input of 54 millivolts was needed for a reference output of 10 watts with an unweighted signal-to-noise ratio (S/N) of 80 dB. Through the standard magnetic-phono inputs the sensitivity was 0.86 millivolt with a fine 75-dB S/N. The moving-coil phone-input sensitivity was 33 microvolts. The S/N could not be measured directly because of an incompatibility between the preamplifier's 20-ohm input impedance and our test equipment—but 0.02 per cent at 20 Hz. The distortion at one-tenth power was only slightly greater than at higher output levels.

The tone controls had good characteristics, especially when the 125- or 8,000-Hz turnover frequencies were used, since they allowed some fairly subtle corrections to be made in the response at the frequency extremes with no degradation of the overall frequency balance. The loudness compensation affected both low and high frequencies, but it is so designed that it can be used without creating an unnaturally heavy quality. The high filter response was down 3 dB at 5,000 Hz, with a 12-db-per-octave slope at higher frequencies. We could not check the full effect of the sonic filter, most of which occurred below our 20-Hz lower measurement limit (Onkyo's curves show a -10-db response at 7 Hz).

The RIAA phono equalization was accurate within ±0.5 dB from 25 to 20,000 Hz. Measured through the inductance of a phono cartridge, the response changed by less than 0.5 dB up to 15,000 Hz and increased by about 1 dB at 20,000 Hz. The rise time of the power amplifier section alone was 3 microseconds; through the entire amplifier it was 6 microseconds. The slew rate of the power amplifier was 17 volts per microsecond.

**Comment.** All the controls and switches of the Onkyo A-10 worked quietly and smoothly, with no turn-on or switching transients. It had a feel of precision in keeping with its solid construction and excellent electrical performance. When we shorted the speaker outputs, the protective circuit responded instantly.

Through the high-level inputs and the standard magnetic-phono inputs, the amplifier was as noise-free as could be desired (our measured S/N figures are typical of the better integrated amplifiers we have tested recently). We were curious, however, about the moving-coil "head amplifier," a feature not commonly found on integrated amplifiers. We immediately noted, even with the supplied input-shorting plugs in place (to prevent sudden bursts of noise when switching through an unused input), there was a distinct hum audible through the moving-coil input when the gain control was set above the half-way point—the approximate gain setting required for a typical low-output moving-coil cartridge. In contrast, the standard magnetic inputs were totally silent when shorted, and at maximum gain they emitted only a faint hiss with a cartridge connected. At usable volume settings they were absolutely quiet. Overall, the Onkyo A-10 is an absolutely first-rate amplifier with above-average control flexibility and apparently rugged construction that promises long and trouble-free service.

Circle 108 on reader service card

(Continued on page 46)
"The Dual 939 cassette deck at $550 is best described as 'beautiful'. It performs well, is notably easy to use ...and it has features most of us thought were impossible to get."

This quote, from a test report in HiFi Stereo Buyers' Guide, is hardly alone in its appreciation of the 939. For example, Radio-Electronics reported:

"Superlatively low distortion, high signal-to-noise ratios, smooth tape transport action... fit in nicely with the very best high-fidelity component systems."

HiFi's measurements for flutter "suggest that the performance level may be beyond not only your ability to perceive any flutter, but the lab's ability to measure it."

And this from Stereo: "Obviously loaded for bear, the 939 is one of the most feature-laden cassette decks we've encountered."

When they say "loaded for bear" here's what they mean:

The 939 reverses automatically in playback. (C-90 cassettes will play 90 uninterrupted minutes.) There's continuous play too. And recording is bi-directional. You never have to flip the cassette at the end of the tape.

Instead of slow-moving meter needles, there are instantaneous-reacting LED record-level indicators—twelve of them per channel. They're switchable from VU to peak reading and are visible from across the room.

Fade/edit control is another Dual exclusive. Unwanted sounds on a tape can be faded out gradually and smoothly, and the music faded back in. While you're listening, because it's all done during playback.

Still more operating features.

The list of features goes on and on. Line/microphone mixing; Dolby NR plus calibrated Dolby FM decoding; memory stop; separate output and headphone level controls; and an overload limiter that doesn't compress dynamic range.

Unique drive system and tapeheads.

The 939's drive system contains Dual's powerful Continuous-Pole/synchronous motor, two capstans, and special gear drives for fast wind in both directions. (C-90 cassettes fast-wind in just over a minute, the time other decks need for C-60's.)

Hard permalloy tapeheads provide extended life and superior magnetic linearity. The four-track record/playback head switches electronically when the tape changes direction, it never shifts position. Result: perfect tape alignment in both directions all times.

Six ways to install.

You can install the 939 for front load or top load, plus three other angles. And you can also hang it on a wall.

One last quote.

Now you can appreciate why HiFi ended its report with: "We can think of no cassette deck that even approaches the 939's unique personality and range of features."

Actual resale prices are determined individually by and at the sole discretion of authorized Dual dealers.

United Audio
12C So. Columbus Ave., Mt. Vernon, NY 10553

CIRCLE NO. 50 ON READER SERVICE CARD
Setton RS 440 AM/FM Stereo Receiver

Setton is an international company whose products have only recently appeared in this country. Setton hi-fi products have a distinctive appearance (they are styled by Pierre Cardin) and are manufactured in France and Japan. At present, the line includes a very expensive tuner/preamp, several stereo receivers and integrated amplifiers, and a record player.

The RS 440 stereo receiver, which is in the middle of the Setton receiver line, is rated to deliver 69 watts per channel to 8-ohm loads between 20 and 20,000 Hz, with less than 0.085 per cent total harmonic distortion. The direct-coupled amplifier is completely protected against damage from improper loads by relays that disconnect the outputs; they also provide a turn-on time delay of a few seconds. Separate front-panel indicators in a "security panel" warn of excessive output transistor temperatures, unsafe load conditions, or power outputs approaching the clipping level.

The FM tuner section of the RS 440 has a tuned MOSFET r.f. amplifier with a four-gang capacitor for good image rejection, an i.f. section with three two-section ceramic filters, and an integrated circuit that provides the i.f. gain, limiting, and detection functions. A phase-locked-loop integrated circuit is the multiplex demodulator and another integrated circuit is the entire AM tuner section. Integrated-circuit "op-amps" are used for the phono preamplifiers.

The heavy satin-finish sculptured front panel and metal knobs have a distinctive warm, bronze-like tint. The dial scales, behind a large glass window, are tilted slightly backward for better visibility, and the FM scale calibrations are at 200-kHz intervals. The large, illuminated tuning meters to the left of the dial indicate relative signal strength (for FM and AM) and FM center-channel tuning.

The control knobs and switches form a row across the lower half of the panel. At the left is a rotary SPEAKER MODE switch controlling up to three pairs of speakers, which can be driven singly, in combinations of any two pairs, or shut off for headphone listening via the adjacent jack. This switch also serves as the receiver's power switch, and a pilot light is located above it. The high-cut filter pushbutton is followed by three eleven-position tone controls for bass, mid-range, and treble. There are pushbuttons for tone-control bypass, mode, and loudness compensation.

The large volume-control knob is concentric with a balance-control ring detented at its center (the volume control has forty-one detented settings). To their right are separate monitor buttons for two tape decks, which can also be set to dub from recorder A to recorder B (though not in the other direction). The SELECTOR knob has positions for PHONO, FM, MPX, FM, MPX. (which blends the higher frequencies to reduce noise on weak FM signals), AM, and two high-level AUX inputs. To its right is a stereo microphone jack and a small microphone-level knob. The microphone can be mixed with any other program independently of the main volume-control setting.

Between the controls and the dial area are four pushbuttons and six colored lights. One light is the STEREO MPX indicator for stereo FM reception; the others show the setting of the SELECTOR switch, identifying the program source at a glance—though the panel markings around the controls are also exceptionally legible. The BASS and TREBLE buttons change the turnover frequencies at which the tone controls take effect, with a choice of 250 or 500 Hz for the bass and 2,500 or 5,000 Hz for the treble. A pair of MUTE buttons (AUDIO and FM) provide, respectively, a reduction in audio volume of about 20 dB for temporary interruptions and interstation-noise muting.

On the rear panel of the Setton RS 440 are insulated spring clips for the speaker outputs, a pivoted AM ferrite-rod antenna, and binding-post terminals for 75- or 300-ohm FM antennas and an AM long-wire antenna. The signal inputs and outputs are standard phono jacks, and a slide switch changes the phono sensitivity for high- or low-output cartridges. The RS 440 has no provision for separate access to the preamplifier outputs and power-amplifier inputs.

The RS 440 was designed for the world market; the Setton RS 440 has a detachable three-wire line cord with an adapter for use on two wire circuits. In countries having different power-socket standards, appropriate line cords are furnished. Since the electrical codes of some countries do not permit the use of the two-wire a.c. convenience outlets normally found on stereo receivers sold in the United States, the RS 440 has a.c. outlets. However, an extension cord fitted with a three-socket "cube tap" is provided with the receiver in lieu of built-in sockets.

The front panel of the Setton RS 440 is 21½ inches wide and 7¼ inches high. It is fitted with sturdy handles, each of which is strong enough to support the entire weight of the receiver (about 31 pounds). The RS 440 is about 12 inches deep plus a 1½-inch forward extension for the handles and an inch or so in the rear for the connectors and the AM rod antenna. A vinyl-finish simulated walnut-veneer cabinet is included. The RS 440 carries a five-year limited warranty. Price: $659.95.

- Laboratory Measurements. During the FTC-mandated preconditioning period (one hour at one-third power) the receiver became (Continued on page 48)
The truth is clearly seen in every Scotch® Master™ Cassette, thanks to our see-through cassette shell. It lets you watch the inner workings of the cassette. And it shows you the mechanical improvements that make for true, pure sound, no matter what switch position you prefer.

**Normal Bias Recording.** Our Master I Cassette features an excellent dynamic range, low distortion, uniform high frequency sensitivity and output that's 10 dB higher than standard tapes.

**Chrome Bias Recording (70 micro-second equalization).** Our Master II Cassette features some spectacular performance characteristics, including a special coating that gives it a 3 dB better signal-to-noise ratio at low and high frequencies than chrome cassettes.

**Ferri-Chrome Bias Recording.** Our Master III Cassette is formulated with the most advanced technology available, giving a 3 dB output improvement at low frequencies and 2 dB at high frequencies. The unique dual layer construction increases both low and high frequency sensitivity over chromium dioxide and ferric oxides.
Setton RS 440  

(Continued from page 46)

tively warm directly over the power transistors. With both channels driven at 1,000 Hz into 8-ohm loads, the outputs clipped at 80 watts per channel. The power into 4- and 16-ohm loads was 106 and 53.3 watts.

At 1,000 Hz, the total harmonic distortion (THD) was between 0.007 and 0.01 per cent from 0.1 watt to 75 watts output; it was only 0.012 per cent at 0.4 watt just before the on-set of clipping. The intermodulation distortion decreased from 0.1 per cent at levels of a fraction of a watt to about 0.01 per cent in the 10 to 20 watt range, rising to 0.028 per cent at 80 watts. At the rated 69 watts output, the THD was typically about 0.01 per cent from 40 to 15,000 Hz, rising to just over 0.05 per cent at 20 Hz and 0.025 per cent at 20,000 Hz. At reduced outputs, the distortion characteristics were much the same.

The tone controls had excellent characteristics, with little effect on mid-range response even when the bass and treble turnover frequencies were set about 1/2 octave wide. With the tone controls set to the 250- and 5,000-Hz Settings, a useful correction at the frequency extremes could be obtained with virtually no effect on the response between 100 and 5,000 Hz. The midrange tone-control action was centered at 1,000 Hz and affected frequencies between 100 and 5,000 Hz. With the tone controls set to "0," the high-frequency response rolled off slightly, to -1 dB at 10,000 Hz and -2.5 dB at 20,000 Hz. When the tone controls were bypassed, the response was flat within ±0.5 dB from 20 to 30,000 Hz.

The sight level had a 6-dB-per-octave slope, with response down 3 dB at 2,500 Hz. Its effect on program content was excessive in proportion to the noise reduction. The loudness compensation boosted both low and high frequencies to a moderate degree. The RIAA phono equalization was very accurate, within ±0.25-dB deviation of our test instruments, over the prescribed range of 30 to 15,000 Hz and was completely unaffected by phono-cartridge inductance.

The input sensitivity of the amplifiers, for a reference 10-watt output, was 62 millivolts (mV) through the AUX inputs, 2.75 mV through the microphone input, and either 0.88 or 1.76 mV through the PHONO input (depending on the setting of the sensitivity switch). The respective noise levels, referred to 10 watts, were -80, -67, and -74 or -75 dB. The phono preamplifier overloaded with either a 175 or 350 mV input (depending on sensitivity), and the microphone input overloaded at 180 mV.

The FM-tuner section of the Setton RS 440 had a mono IHF sensitivity of 12.75 dBf (2.3 microvolts or µV). In stereo it was 18.5 dBf or 4.7 µV. The more important 50-dB quieting sensitivity was 16.75 dBf (3.8 µV) in mono and 37.8 dBf (40 µV) in stereo, both with about 0.47 per cent THD. The ultimate signal-to-noise ratio (S/N) was 71.5 dB in mono and 68 dB in stereo, and the respective distortion levels at a 65-dBf (1,000-µV) input were 0.1 and 0.2 per cent. In stereo, the THD with L - R modulation was 0.015 per cent at 100 Hz and 0.05 per cent at 1,000 and 6,000 Hz.

The frequency response of the FM-tuner section was extremely flat, within ±0.4 dB from 50 to 15,000 Hz and down only 1.4 dB at 30 Hz. Although there was no drop in response at 15,000 Hz, the 19-kHz pilot carrier leakage was a reasonably low (and perfectly acceptable) -60 dB. Channel separation was excellent, reaching nearly 50 dB at 1,000 Hz and exceeding 34 dB over the full range of 30 to 15,000 Hz.

AM rejection was only fair (45 dB) at an input of 45 dBf (100 µV), but it improved to an acceptable 54 dB at 65 dBf. The capture ratio was a good 1.2 dB at either input level. The image rejection was 72.8 dB, and the average alternate-channel selectivity was a very good 81.4 dB at 100 kHz. The AM station 0-dB point was 7.2 µV. The muting threshold was 15 to 17 dBf (3.2 to 4 µV), with a smooth transition between the on and off states. The stereo threshold was 14 dBf (2.7 µV). The tuner hum was -68 dB. The AM-tuner frequency response was down 6 dB at 55 and 3,000 Hz.

- Comment. Both in its FM and audio performance, the Setton RS 440 proved itself to be a very clean, low-distortion receiver, with better-than-average tone controls and most of the control features one expects to find on a top-quality stereo receiver. Originally rated at 69 watts output, it was subsequently rated at 53.3 watts. Then, after we convinced ourselves that the clipping light would begin to flash at about 68 watts, well before audible clipping occurred, and that the heat light could be induced to glow only by the most unreasonable operating temperatures (which are never attained in normal use).

Many receivers suffer from poor control visibility, requiring close scrutiny or guesswork to determine which input has been selected, or what are corrected for some of their controls. Not so with the Setton—its uniquely styled knobs, with their slightly raised bars, are well above the average both in a tactile and a visual sense. No guesswork is required to determine the input, even without the aid of the identifying lights (although they are certainly convenient), or, for that matter, where any of the controls has been set.

The flywheel tuning mechanism is as smooth as any we have used, and the flawless tuning action has just enough time delay so that the program emerges gradually from a silent background when the station has been correctly tuned (tuning for minimum distortion is not critical, and one can depend on the reading of the channel-center meter for that purpose). The dial-calibration accuracy is satisfactory; on our test sample the error was no more than the 100-kHz "pointer width." Although style is a very personal consideration, there can be no doubt that the Setton RS 440's front panel is both unconventional and unique—although unmistakably a stereo receiver, it will never be confused with any other make. To us, the Setton RS 440 appears to be a very sensible and practical unit, with sons performance to match.
Your tuning band is like everything else in the city. Crowded.
The LR-120DB helps you pick your way through the crowd.

In many cities, there are hundreds of stations crowded shoulder-to-shoulder across the tuning band. So moving across the band, you get hum, and hiss, and static.

The LR-120DB has adjustable FM muting, which allows you to mute out as much interference as you want, and zero in easily on your station.

The LR-120DB costs $600. You can't get adjustable FM muting with so much power anywhere else for under $900!

Adjustable FM muting may be the LR-120DB's biggest exclusive in its price range. But it is by no means the only one. The LR-120DB is the only receiver anywhere near this price level that offers you all of the following features in addition to the adjustable FM muting.

**RESERVE POWER.** One measure of a fine receiver is pure power. The LR-120DB gives you 120 watts per channel (both channels driven into 8 ohms from 20 to 20,000 Hz. with no more than 0.09% THD) more power than you'll ever need. The lesser power of lesser receivers can distort the signal just when you're enjoying the music most—but the LR-120DB has the power to capture even the most demanding passages with perfect fidelity... even at the highest listening levels.

**BUILT-IN FM DOLBY.** During the critical passages when an oboe or a violin carries a delicate solo, the hissing of the signal can literally destroy the beauty of the sound. Dolby lets you reduce such disruptive sounds to the vanishing point.

There is one more significant advantage to the built-in Dolby—money. With more and more top-quality FM stations broadcasting in Dolby, many receivers now offer a provision for adding a Dolby decoder—at your expense. But the LR-120DB, with Dolby built-in, lets you enjoy the highs (and escape the hissing) without spending extra for a decoder.

**DUAL POWER METERS** with adjustable range read-out, one for each channel. There are other receivers which offer this feature—but there are very few in this price range. At the risk of repeating ourselves: the LR-120DB is the only receiver in its price range which offers all of these features.

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CIRCLE NO. 29 ON READER SERVICE CARD
Going on Record

By James Goodfriend

ONCE MORE WITH FEELING

It is the nature of the classical-record business—even more so than of the book business—that the past is something not to be forgotten but to be recycled. Depending somewhat on fashion and economics, even more on chance and personal enthusiasm, twelve-inch segments of the recorded past appear, reappear, and force a re-evaluation of their worth—if, in fact, they swam into our ken at all in their earlier incarnation. Here are a few of the most recent arrivals, some of them familiar to me, some unfamiliar, and some, despite their age, apparently never available in this country in this way before.

The late composer-conductor René Leibowitz leads performances of the Mussorgsky/Ravel Pictures at an Exhibition, the Mussorgsky/Rimsky-Korsakov/Leibowitz Night on Bald Mountain, and the Saint-Saëns Danse Macabre on Quintessence PMC 7059. The first two were originally available here on RCA in 1964, but I can find no listing of general availability for the third. All are exciting renditions, and recording technicians—like my own—are the Kubelik/Chicago Philharmonia Orchestra led this time by Rafael Kubelik. I have treasured an Italian Odeon pressing of this disc for years and am happy to report that the Turnabout version (presumably remastered) sounds significantly better. The performance is certainly among the most outstanding on disc and will be the very first choice of many listeners. Solomon virtually owned this music; it held no problems for him technically, and he was obviously completely at one with its musical message.

A couple of recently discovered private recordings (dating from 1947 and 1950) furnish the material of another disc in the Turnabout/Vox Historical Series: the Bach/Busoni D Minor Piano Concerto and the Chopin D-flat Nocturne and Etudes in E Minor and G Major. The pianist was the great Dinu Lipatti, the orchestra the Concertgebouw under Eduard Van Beinum. Any recording by Lipatti is obviously valuable, so it implies no lack of respect if I suggest that the best thing on the disc is the Chopin, particularly the Nocturne, which is both magical and totally unaffected, an amalgam of qualities of which Lipatti sometimes seemed to own the patent. The concerto is eminently sensible, sensitive, and enjoyable. True, it is not Bach as we understand his music today: even on its own terms, it pales a bit because we do understand this music better now. The pianism, of course, could hardly be bettered. The recording has all sorts of problems from fading to the faint sounds of conversation from crossed telephone wires, but there is no alternative version that includes Lipatti.

On the face of it, a disc that coupled Richard Strauss' Four Last Songs as performed by Kirsten Flagstad, Wilhelm Furtwängler, and the Philharmonia Orchestra with Schumann's Dichterliebe rendered by Gérard Souzay and Alfred Cortot (Turnabout THS 65116) would seem odd, but you will have no conception of how odd it really is. On the one side, Flagstad and Furtwängler are obviously performing a Wagner opera by Strauss. The soprano is in fine, if typically chilly voice, but her total lack of the inflections proper to song only makes us realize once again how great an achievement was that of Elisabeth Schwarzkopf on Angel 35084. On the other side, Souzay, who sounds quite wonderfully youthful, has some fine ideas about the Dichterliebe which are not shared by Cortot, who has some equally interesting ideas which, of course, are not shared by Souzay. They are together, I think, less than half the time. No one should think the cycle is supposed to sound like this, but if you can put up with it, there are marvelous things. In all, then, a true vocal curiosity.

Considerably more than a curiosity is the current reissuing of Haydn's The Seasons on the imported Preiser label (PR 3055/3), which also calls itself the Monophone label. As to the same label's reissue of the Brahms Concerto No. 1 in D Minor on Turnabout, I suggest that the best thing on the album and Favorit Klassik on disc labels with separate prefixes and numbers to match. The performance, with the Vienna Philharmonic and Opera Chorus directed by the late Clemens Krauss, was first available on Haydn Society more than a quarter of a century ago, so one should not expect much in the way of technical niceties. Of the soloists, Trude Eipe is sweet-voiced, if of no great expressivity, as Hanne, Georg Hann is a better-than-average Simon, and Julius Patzak an outstanding Lucas. There is some sloppiness in the chorus and orchestra, but what warmth, what affection, what musicality! Not The Seasons, of course, but a tantalizing whiff of the excitement that was so much a part of the early days of LP. The past recaptured indeed.

Finally, it is a joy to announce that the original Varèse record, EMS 401, long, long out of print and written about so glowingly by Frank Zappa in these pages (June 1971), is once again available. It is now on Finnadar SR 9018 with the Zappa essay reprinted on the jacket and a recording of the Interpolations for tape from Desert added to the original repertoire of Ionisation, Density 21.5, Octandre, and Integrales. Despite newer recordings of all but the Interpolations, this remains one of the classic LP discs, whose reappearance restores to us not only musical performance, but a tantalizing whiff of the excitement that was so much a part of the early days of LP. The past recaptured indeed.

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DOLLY PARTON SINGS BACH

Several months ago, on the occasion of Stereo Review’s twentieth anniversary, I invited readers to send me their suggestions for recordings just dying to be made or new groups crying to be formed. The response was rather overwhelming, and it appeared for a while that sorting through the unexpected deluge of mail was going to cut into the time I had reserved for getting myself in shape for summer. All my friends had been jogging for weeks, had taken est or courses in transcendental meditation, and were snug, self-assured, and ready.

But, though psychically and physically flabby, I grudgingly gave myself up to reading and was soon delighted to find my spirits considerably uplifted by a number of amusing letters. One from Bob Struck described an imaginary concert in which the Queen of Country Music, Candy Tandy, sings her all-time chart-topper, Ah Almost Persuaded Yew to Help Me Make It Through the Night, but Then That Old Jolene Gal Come In, and She Done Took Me Make It Through the Night, but Then That Old Jolene Gal Come In, and She Done Took My Man.

There were letters suggesting weird fusions of style (country-disco? Really, Charles Williams!), supreme performing experiences (Snuff Rock was very popular—see Peter Reilly’s review of Helen Schneider on page 81), and unusual pairings of performer and material. Mr. Struck wished to hear Dolly Parton singing the best of Bach and Lawrence Welk playing the Alice Cooper Songbook, cham- pagne style. And Mr. Dalzell suggested a recording of Keith Jarrett performing his First Piano Concerto with the Boston Symphony Orchestra.

In far-off Australia, Henry Hollow longed for a recording of Mabel Mercer and Barbara Streisand entitled “Now Sing It My Way, Dear” and one by Anna Russell, “An Evening with William Livingstone,” subtitled “Her Extracts from Opera. Lapped Up by His Cats.” There were predictions: that the Sex Pistols would cut his fingernails (both from Anthony Kiel-basa). “Mahatma Kane Jeever” predicted that an Iranian punk group would record Allah Save the Shah and that Bert Lance would do a version of Georgia on My Mind. It was suggested to Mr. Jeever that the Kinks and Sex Pistols should combine to produce Kinky Sex and that Syd Vicious should front Graham Parker’s back-up band to form Vicious Rumour—and lots of similar name-play material along the lines of, “If Helen Reddy married Tom Petty and divorced him for Johnny Cash, would she be Helen Reddy Petty Cash?”; “Barbra Streisand married to David Seville would be Barbra Seville” (both courtesy of Richard Ross). And Rob Jahns offered a latter-day Byrds composed of Billy Falcon, Conway Twitty, and members of the Eagles and Wings.

Midst all the whimsy, two significant trends became evident. The first was that most readers who wrote in were concerned with the barrenness of popular music in the Seventies, yet had pretty much given up on the coming of a pop messiah. Those who ventured to identify a Next Big Thing or a larger-than-life hero for our times did so rather wistfully, with a sense of the passing of the early Seventies was gone. In its place was a resigned acceptance of the likelihood that no one artist or musical innovation would be able to stir up or dominate the music scene as did jazz in the Twenties, Elvis and rock-and-roll in the Fifties, and Bob Dylan and the Beatles in the Sixties. After all, the last potential savior of music, Bruce Springsteen, had been banished (if only temporarily) by mere legal hassles, and punk rock, which succeeded in injecting some vitality into the moribund popular music of the Seventies, is already showing signs of tired blood.

What we’ve got today is one big musical stew, cooking slowly over a low flame, Toss in what you will—some reggae, some jazz, a pinch of punk, a Springsteen, or a Meatloaf—if the initial splash, what you’ve got is still a stew. One musical style may flavor the gravy more strongly or maintain its individual characteristics longer, but as quite a number of people everything boils down to that soupy staple known as MOR.

Unpalatable as most of us find this situation, no one seems to be wasting away from musical malnutrition, which brings me to the second trend clearly evident in those stacks of reader mail. Among popular-record buyers, eclecticism is on the rise as a Seventies survival trait, at least in the twenty-five-and-up age bracket. This is the age group responsible for the greatest percentage of record sales, a fact confirmed by a recent Warner Communications survey. It came as a surprise to an industry that firmly believed people under twenty-five were responsible for the lion’s share of disc consumption in this country. Eclecticism in musical tastes appeared over and over in letters that displayed their writers’ familiarity with artists as diverse as Keith Jarrett, Loretta Lynn, Kiss, and Michael Tilson Thomas. Although many pop devotees remain rigidly committed to the narrow diets they have clung to for years, I see growing evidence of a desire to dip into the musical stew, pull out the choicest tidbits whatever they may be, and leave the pot liquor for those who don’t know any better. My mail confirms it, and I applaud it. It’s good to know that no one need starve, at least musically, in America any more.
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ERVIN NYIREGYHÁZI

Rediscovered after fifty years of silence, is he a last, privileged glimpse of a vanishing musical aesthetic or a mere curiosity of the history of the piano?

By Michael Walsh

When Ervin Nyiregyházi was a twelve-year-old prodigy in Berlin, there occurred the first of two events that changed the course of his life. The Hungarian violinist Ferenc Vecsey discovered that the young pianist did not know the B Minor Sonata of Franz Liszt and encouraged him to investigate it. Braving the disapproval of his teachers, Nyiregyházi did, and its effect on him was electrifying. "It was the deepest, most profound experience I ever had," he has said. "I became ill—I got a fever."

The second event took place nine years later in New York City, where he had been hailed as "a genius," "an unsurpassed master," and "the sensation of the season" by the music critics. Nyiregyházi, unable to speak adequate English, wandered into Brentano's, a bookstore on Fifth Avenue, and somehow came out with a copy of Oscar Wilde's The Portrait of Dorian Gray. Again, the effect was profound.

From Liszt he learned what music could be. From Wilde he learned the English language. From both he learned something about life. Today, at seventy-five, Nyiregyházi vividly remembers both experiences, and he has built on them. "I live freely," he says. "I live the way Liszt composes and Oscar Wilde writes, and I have learned, please, by all means, assert yourself in the face of the world's opposition. That rebellion is wonderful."

Since the day he defied his teachers' strictures against Liszt, Ervin Nyiregyházi has been a rebel, and his rediscovery as a master pianist, fifty years after his concert career came to an ignominious end, is one of the most remarkable musical stories of our time.

At six he was a prodigy in both music and chess and was compared to Mozart in his abilities. At seventeen he was an internationally acclaimed concert pianist with performances on two continents. At thirty he was forgotten. At seventy-five, after nine marriages, he is both a legend and a new discovery. He lives, as he has most of his adult life, in a cheap hotel in the seediest section of a major United States city. During his long years of exile in the slums of New York, Los Angeles, and now San Francisco, he played only sporadically and rarely practiced. Yet, at his recent recording sessions in San Francisco, the results of which have stirred a profound interest in him, he performed works he has not...
THE PIANIST TALKS TO HIS PRODUCER

The San Francisco recording sessions with pianist Ervin Nyiregházi were produced by the Ford Foundation’s Richard Kapp under the Foundation’s auspices. Mr. Kapp, a well-known conductor as well as a program officer in the Foundation’s Office of the Arts, gives his impressions below and on the facing page.

Ervin Nyiregházi’s unshakable adherence to the clarity of his own impulses is contagious. When I go back to recount anecdotes, I find I cannot place them in chronological order, nor do they allow themselves to be structured into some conceptual or architectural plan. In a sense, then, what follows here is a series of impressions that come to me on a given evening: tomorrow, the stories might well be very different ones.

In all of Nyiregházi’s recording sessions there was no editing whatsoever. Everything is played through once, in two cases twice, on different pianos. Nothing is corrected. After the third day of our March recording sessions, we drove to dinner together. In the car Ervin said, “You know, you think I know nothing about editing or splicing, that I have no idea how recordings are generally put together. In fact, I know all about these matters and I have no objection to scheduling a session or a day or two at the end of our recordings solely for the purpose of making corrections. If we agree in advance to do such sessions, I will oblige.” Then, with rage filling his voice, “But, I will not play music and then go back and make note corrections on the same day! That is like eating a gourmet meal and then having to wash the dishes!” We never did the editing.

No one, including Ervin, knows what he will play at any time. We know only that we have collected a pile of music, which is spread across a large table before the session begins. Ervin says that practicing has little to do with his playing; most important is that he align himself with his own emotional state so that he is in tune with his own impulse at any instant. It is a bit like a pilot tuning into an assigned frequency in order to receive instructions from the tower. Once tuned in, that impulse is directed through the particular piece that best expresses the true nature of the impulse.

At the recording sessions, we have two pianos next to each other on the stage. No one of us knows which piano Ervin will use, and two sets of microphones are put up so that we can switch from one to the other as he walks the several steps from one piano to the other. In January, one piano was a Steinway and the other was the venerable Baldwin borrowed from the Old First Church in San Francisco. Despite its excellence, the Steinway was allowed only as a supplement to the Baldwin, to which Ervin feels a great closeness; it was upon this piano that he performed the Deux Legendar in 1973, released on his International Piano Archives/Desmar disc, for his beloved late wife Elsie. Years of hard use under less than ideal conditions have taken their toll of this piano, and the upper register was hard put to produce a sustained tone. We were all worried that the condition of the instrument might impede the performances. None of us could make that upper register sing. “But you must understand,” Ervin said, “it is not the piano that makes the sound. It is I who make the sound.” He touched the keys and the piano bloomed.

* * *

We were all worried that the condition of the instrument might impede Ervin’s playing, but his music was always there, waiting to be released. It was upon this piano, and the upper register was hard put to produce a sustained tone. We were all worried that the condition of the instrument might impede the performances. None of us could make that upper register sing. “But you must understand,” Ervin said, “it is not the piano that makes the sound. It is I who make the sound.” He touched the keys and the piano bloomed.
much," he says. "A concert is brutal. Like someone choking me." Certainly, his experience in the concert world has been a bitter one, and the result has been an intense case of stage fright—"Lampenfieber," as he calls it in the German style. The very thought of performing, of being judged by an audience of strangers, terrifies him.

It was not always this way. As a young man, Nyiregyházi had no trace of Lampenfieber. "I was accustomed to giving concerts then," he says. "Before I came to America I gave very many concerts in Europe, and I became adjusted to it. I did not have the fear that later developed when I hardly ever appeared before the public."

But even when he was a young boy growing up in his native Budapest, things were not ideal. Ervin was a demonstrably unusual child (he was the subject of Géza Révész’s book The Psychology of a Musical Prodigy, first published in German in Leipzig in 1916 and in London and New York nine years later), and his parents, especially his mother, found him difficult to handle. The death of his father, when Ervin was eleven, affected him profoundly. His upbringing was left to his mother, who sought to exploit him as a prodigy—she went so far as to keep him in short pants even when he was a teenager.

Nyiregyházi’s memories of his mother, who was killed during World War II, are not fond ones. "If I received one favorable review and one unfavorable one after a concert, my mother would say that the man who wrote the unfavorable review knew more about music. She didn’t want me to be concealed, but do you think it’s right to tell a young man that the favorable reviewer was incompetent and the unfavorable reviewer competent?" In this period were sown the seeds of Nyiregyházi’s extreme need for acceptance later in life and his accompanying fear of rejection and ridicule.

As a boy he played for Queen Mary of England at Buckingham Palace in 1911. His knowledge of English was almost nil, but he had been coached to meet the Queen. "The first words I was taught to say to her were ‘How do you do, Your Majesty?’ and I was told she was going to answer me, ‘Thank you, very well.’ But after that she spoke German to me because she had been told that I didn’t speak English. I kissed her hand. I was told to do that.”

He recalls that the program he played consisted of Beethoven’s Variations on God Save the King, a Chopin waltz, two of Grieg’s Lyric Pieces, the Rachmaninoff Prelude in C-sharp Mi-

I n March, Ervin had agreed to use a superb recent Baldwin instead of the older instrument. The fine Steinway was once again present. "Each piano has a character," he said, "and each is more suitable to certain expressions. In fact, when Ervin wanted to use printed music he played the Steinway. When he played without music he tended toward the Baldwin. The heavier music rack on the Baldwin impeded the flow of sound, he felt, and he used that piano only when he wanted to rely on his memory."

O nce piece, the Schönberg Klavierstück, Op. 11, No. 2, was played from the printed score. "You know," Ervin said afterwards, "the last time I played that piece was in mid-June, 1940. I haven’t looked at it since." Likewise, after playing a series of the Grieg Lyric Pieces in January he noted that he had last played the pieces in 1910(1). "I like them better now," he added.

E rvin’s music is often a spread-out folio of musical shorthand notes that he writes out for himself in lieu of a printed score. He is distracted by page turns and prefers to copy meticulously certain key passages or phrases he wants to refer to. He compresses between three and four pages of print into one page of his own fine manuscript.

I asked Ervin when he first found himself sensitive to the attitudes of critics and “experts.” He said that his fear developed only after he came to this country in 1920. He said he had never experienced anything in Europe to prepare himself to deal with the charges leveled at him here: of excess and exaggeration, of irresponsibility in failing to adhere literally to the printed text. Such comments had not been made in Europe. I noted that some of his reviews in his second and third seasons had taken note of a new caution in his playing and had castigated him for that. Did he in fact temper his music-making to acknowledge the objections of the critics? "Not at all. They condemned me for excess and sought a more temperate approach. Then they heard for themselves what they had wanted to hear and praised themselves for hearing it. But I played no differently."

I f someone asks Ervin to play a particular piece, it is likely that he will banish that piece from his repertoire forever. "If you ask me to play something, it indicates you have a preconception of how it sounds. I cannot compete with such preconceptions. In such cases I lay myself open to criticism with which I cannot deal. That is why I prefer to play operatic and orchestral works. In reality I am a conductor and a singer, not a pianist."

"M usic is a wonderful way of life but a terrible career. I am a talented amateur."

W hile I drove him up New York’s West Side, Ervin remembered having walked five miles to accept a dinner invitation at the Elmans’ in the early 1920’s. He was in love with Mischa Elman’s sister. "I didn’t have the five cents for the subway and was too proud to ask for money. My fear was that I would arrive too late to eat. But in those days I was very well dressed. I arrived just in time to get my supper and everyone complimented my appearance and how well I looked. Afterwards I walked home. Two days later some offer of a concert came along and I had money once again."

A note of my own: Ervin has the largest consciousness of anyone I have ever met. Just about every instant of his life is subject to instant and total recall. If one picks a day and a time, Ervin can generally fill in with incredible detail both the internal and external events of that moment. Thus, the praise and approbation he has won are forever with him. But so, too, are the criticisms and caviling of three quarters of a century. The experiences that were painful to him are forever present. They accumulate like non-biodegradable garbage, never breaking down with time. This mammoth landfill of unhappy moments is the barrier that faces him. He knows he can’t get over it, under it, or around it. Therefore, he can only transcend it. He is the greatest risk-taker I know, profoundly unafraid for his own survival. He knows that to be rational in the process of making music, to resort to caution or considerations of any sort, is to bring before him the specter of that monster mound of painful experience. He knows that music is a communication that precedes understanding and that this transcendental, transformational phenomenon is at the heart of his music-making and, of his entire experience of living.

—R.K.
NYIREGYHÁZI

They double-crossed me." After the suit, he found it impossible to get another manager. "My musical reputation was already damaged by the fact that Johnston had put me on as an assisting artist." It was 1925, and for all practical purposes Ervin Nyiregyházi's concert career was over.

There followed a long night of obscurity. In 1926 he married his first wife, Mary, who offered to manage his career in exchange for the marriage and a quarter of his earnings. He got one recital out of the bargain—in Aeolian Hall in 1927—and his first divorce in the same year.

MUSICAL AMERICA

December 11, 1920

Nyiregyhazi: A Young Liszt

By Harriette Brower

SUPPOSE we should make a paraphrase of Schumann's now famous phrase: "Hats off, a new piano genius!" We should be very near the truth if we applied it to the Hungarian pianist and composer, Ervin Nyiregyhazi. To play the piano at the tender age of two, and to perform the Beethoven C Minor Concerto with orchestra at five years, seldom or never has fallen to the lot of "a musical genius, no matter how gifted. And now at mature nineteen, after being in America a few weeks, and giving three Carnegie Hall recitals, we can begin to recover from first impressions of astonishment, and take a more sane and settled view of this pianistic phenomenon.

..." Unless one came to the hall in a totally unreceptive or antagonistic state of mind, one could not listen unmoved to such piano playing. It was filled with the spirit of youth, with the exuberance of young fancy, and with such sparkling tone splendor as one hears of nowadays.

He describes the period from the middle of 1927 to the middle of 1928 as the worst year of his life. "With his wife gone, he was forced to earn his living as best he could, mostly by playing private concerts for the Hungarian community in New York, often in basements on wretched pianos. "It was a very bad year as far as insufficiency of funds and lack of lodgings were concerned." There were times when he couldn't raise even fifty cents a night for a bed in a cheap rooming house, and he slept on the subway shuttle between Times Square and Grand Central Station.

But he survived, and so did his sanity. "The psychological effect was not as bad as you might think," he says. "For five cents I could ride forever, and with a cup of coffee I could live quite elegantly. When I had five dollars in my pocket, I felt like a millionaire. When I lived in a flophouse, I was still not a derelict. It was only my prestige that came down, not my inner worth."

In 1928 he went back to Los Angeles, where he had had a good reception earlier, and got a job at United Artists sightreading new movie scores. It paid well, but "it was almost impossible to appear on the concert stage after people found out I was working in movies." Nyiregyházi's movie career included one on-camera appearance. In a cheap horror picture shot by an independent producer on the Columbia lot in 1944, The Soul of a Monster, he played a diabolical pianist who drove people to crime or madness, in its own perverse way, was at least recognizing the power of his playing.

From the late Twenties to 1977, Nyiregyházi lived most of his life in Los Angeles, a city he dislikes. He returned to Europe briefly in the Thirties and played concerts there with some success. He went back in 1959 and again last year, each time for a short period. For a while in 1973, he lived in San Francisco with his ninth wife, Elsie, and gave a few recitals to raise money for her support.

Terry McNeill, Gregor Benko's colleague on the West Coast, happened upon one of Nyiregyházi's recitals at San Francisco's Old First Church on May 6, 1973, and taped it on a cassette recorder he had with him. When Benko heard the tape at the International Pianist Archives, he immediately realized the importance of what had been discovered. He found Nyiregyházi back in Los Angeles and persuaded him to undertake a recording session there. The fruits of that session, together with the poor-quality cassette recording of the magnificently played Deux Légendes, became the album "Nyiregyházi Plays Liszt," released by Desmar Records last year (reviewed in STEREO REVIEW in January 1978), and Ervin Nyiregyházi was no longer a forgotten man.

Ever since the day Nyiregyházi first looked at the B Minor Sonata, Liszt has been his chief musical passion, not only because he has such a close emotional and spiritual identification with Liszt, but because past performances of Liszt's music, he feels, have distorted its real meaning. "Liszt has always had a bad time of it as a composer," he says. "If Liszt's works were presented properly, the orchestral works as well..."
as the piano works, the public would change its mind about him. Performances don't bring out the real greatness of Liszt, or rather, they don't bring out that which is really great in Liszt, the musical and spiritual content that Liszt expresses in music.

"One reason for the inadequacy of performances of Liszt could be that the very essence of his individuality is far removed from the usual framework of the life we live, and of the life people lived in the past century also. In other words, it's more removed from reality as we know it—as the average human being knows it—than the works of most other composers. It's a matter of degree, to be sure, because I don't want to say that Brahms is a crass realist, but considering the transcendental aspects of some of Liszt's music, I would say that Liszt has a reality of his own.

"To Liszt, the very spiritual things aren't so very spiritual because that's his natural idiom. To him, that constitutes reality. But what to Liszt constitutes reality is to other people either something totally un-understandable or misunderstood, or else just an affectation, perhaps, or at any rate of no real moment or importance. But although Liszt knows that he is an idealist, he doesn't feel that it is something that requires any extra effort. It is to him his natural life and mode of expression. What to others is strange, to Liszt is natural. And that is what I, at any rate, feel and have always felt in Liszt's music.

"I can feel the spirituality, but if I want to put it into words, it is quite a different matter. I could say it is a bent toward the transcendental, but then I would have to explain what is the bent toward the transcendental, manifested in such works as the orchestral tone poems, From the Cradle to the Grave and Hamlet, and the works of the late period, including the third volume of the Années de Pelerinage.

"It is indispensable for a performer to have this same bent away from the realistic perception of the mundane. But it is hard to present Liszt's transcendental bent to a world that is not at all transcendental. And this is why he suffers more from improper performances than any of the other great composers."

Nyiregyházi feels that he has a special ability to present the works of Liszt in the way they should be performed. "Maybe we can call it a mission, but that is not the happiest phraseology," he says. "I had this ability even as a young man, but I was careful not to play in the United States those works that manifested these traits to a high degree. In those days Liszt was thought of as definitely inferior, musically, to all other composers, according to the critics in New York. The public was less developed spiritually and intellecually to receive strong artistic impressions." So, even then, Nyiregyházi practiced a form of self-censorship. "I was quite content to do so. I would have been reluctant to expose Liszt's greatest works to ridicule."

For all his respect for Liszt and other composers, Nyiregyházi has never felt himself bound by the printed score, and he often makes radical changes. During his January recording session in San Francisco, for example, he repeated an entire section of the Third Hungarian Rhapsody. He did the same in the Evening Bells movement from the Weihnachtsbaum cycle. But he is extremely sensitive to charges that he "alters" the music. In his mind, he does not alter the music—he realizes it.

About the Third Hungarian Rhapsody, he has said: "It's almost impossible to write down a Hungarian Rhapsody the way its creator felt it or the way a gypsy might improvise on the cimbalom, something Liszt might have heard. It is a most inadequate notation of what took place in the composer's soul. What Liszt put down on paper is only a fair approximation of his inner intent, less apt to be right than with other composers, not because of an inability to write down the notes, but because of the force of his vision." Nyiregyházi decrives the post-Toscanini tradition of "accepting the printed score as final rather than as an indication of the composer's message."

One reason he feels he has the privilege of arrangement is that he is a composer himself. The list of his works runs to well over seven hundred, all microfilmed and safely stored in a vault in Los Angeles. Only a few of them have ever been heard, and those privately (not counting the juvenilia). He will not play them, nor will he allow them to be played by others. There are many songs, mostly in Hungarian and German, with a few in English. There are, of course, works for the piano. But he has also written for orchestra, and one of his major compositions is The Portrait of Dorian Gray, a tone poem which would take over an hour and a half in performance.

But it is his pianism that has once again captured the attention of the musical world, a pianism reflecting both genius and adversity. Nyiregyházi has not given up his lifelong struggle to remain free and unpigeonholed, but it has taken its toll on his confidence. Once he played the piano with the thoughtlessness of a prodigy; today he contemplates his recording sessions weeks in advance, unable to do anything else, including compose, as the time to play approaches.

He lives in a cheap hotel room in San Francisco's disreputable Tenderloin district—a cosmopolitan by nature, but a recluse by choice. He has few friends because meeting new people frightens him. The years of absence from the stage and from the keyboard have caused him to fear playing the piano. He desperately wants public approbation, but he is unwilling to risk the ridicule of the past.

The success of the recording sessions in San Francisco has raised hopes that he might be persuaded to play in public again. But there is no "persuading" Ervin Nyiregyházi. When he wants to do it, he will do it, and not before. The piano is not his enemy, for once his hands touch the keys they stop shaking and he goes into a trance. The audience is not his enemy, for, in the right frame of mind, he enjoys playing for his friends. He knows who the enemy is: "I am my own greatest enemy. I must defeat myself in order to play." For a man who desires nothing more than the triumph of communication, that is a terrifying paradox.

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NYIREGYHÁZI ON DISC

At present, the only available recording of Ervin Nyiregyházi is the album "Nyiregyházi Plays Liszt" (International Piano Archives/Desmar IPA 111). If it is not available from your local supplier, it can be ordered from Desmar Music, Inc., 11th Floor, 155 Avenue of the Americas, New York, N.Y. 10012. Price is $7.98 including postage.
In the beginning there was Betamax, and for quite a while there was only Betamax. Now, suddenly, we’re inundated by other futuristic-sounding names: Vidstar, BetaVision, V-Cord, SelectaVision, the Great Time Machine, and even more. Are these invading alien creatures from another galaxy? No, they’re invading video-cassette recorders from Japan. Their assault is already in progress all over the country. And, since they may possibly change your entertainment life radically, it’s time you had some information about just what that change might involve.

Let’s start back about twenty years ago, when the video-recording phenomenon really began. Audio tape recording had been around for some time, though even professional equipment was still relatively crude compared with today’s best home units. It was still necessary to run 1/4-inch audio tape at a minimum of 15 inches per second to achieve a “hi-fi” frequency response, and the bandwidth necessary for video made audio recording look like child’s play. It just wasn’t practical—at least in terms of tape economy—to move the tape across the head fast enough to provide the frequency response needed to do the job. And so, engineering ingenuity to the rescue: a means was devised to move a system of multiple heads across the tape so that the combined speed of the tape and the heads provided a very high effective tape speed. In addition, a clever configuration of multiple, slanted recorded tracks made the most of every available square micron of tape surface. This arrangement worked quite well—so well, indeed, that tape virtually sounded the death knell for what has since become known as “the golden age of live TV.”

So the technology for video recording has been in use for quite some time, but the process was too complicated and the equipment too bulky and expensive for the home. As an example, 2-inch-wide tape is used up at the rate of 30 square inches per second. Compare that with the 1.875 square inches per second—and half that for quarter-track recording—used by open-reel audio decks at 7½ ips and you’ll get the idea. The problem, then, was to arrive at the same result, or a reasonable approximation of it, in a format and at a cost compatible with home use. This proved even more of a challenge than getting hi-fi sound out of the little Philips cassette.

Over the past ten years or so a number of companies have announced development of one system or another...
that would bring video recording into the home in tape (or disc) form, but until recently all of them ran into technical or financial problems before coming to market. Then, a few years ago, along came Sony with a system called “U-Matic.” It utilized 3¼-inch tape in a cartridge about the size of a book. It was essentially a miniaturized, simplified version of the commercial 2-inch-tape decks—and it worked. It was too expensive for the home market, but it has found wide acceptance in the industrial and institutional areas.

Sony didn’t rest on its laurels, but kept working on a practicable home unit and eventually came up with the now well-known Betamax system. This was the first unit to be widely marketed for the home. It uses ½-inch tape in a cassette about the size and weight of a paperback book; in its original form, the cassette would run for one hour. (It’s now up to two hours, with a three-hour cassette as well as a cassette-changing device on the way.) Of course, other companies were working on the same problem, and the sudden appearance of a variety of video-cassette recorders (VCR’s) means that a number of them have come up with a variety of solutions—which may in time give us some trouble with format compatibility.

The Machines

Undoubtedly, many of you reading this haven’t yet encountered any of these VCR’s “in person,” so an introduction is in order. To begin with, yes, they do deliver what they promise. The image they produce, while very slightly below broadcast quality, is excellent, and most viewers would probably be hard put to tell the recording from the original tape except in a direct A-B comparison. It is possible, though, that the recording you make off the air will be superior to the picture your TV set delivers on the tube if the set itself is faulty: the recorder is inserted in the sette recorders (VCR’s) means that a number of them have come up with a variety of solutions—which may in time give us some trouble with format compatibility.

The main controls amount to a combination of the transport controls you’d find on an audio deck, in the usual piano-key or lever form (the transport functions are the same), and the channel-selector controls on a TV receiver. In addition, you’ll find one or more controls for fine adjustment of tape playback, and some units have “memory” arrangements to expedite finding a given section of tape. Since changes in humidity and temperature can interfere with smooth tape motion, it is customary to provide some sort of warning indicator—or even a built-in dehumidifier.

The machines, being intended for the widest possible market, are simpler to operate. (Perhaps at some future time they’ll begin to incorporate additional gadgetry more appealing to those who love a panel full of controls.) Their external simplicity, however, belies an internal complexity that makes the most advanced audio deck seem elementary by comparison. The required very wide frequency response mentioned earlier is (and compare this with audio’s 20 to 20,000 Hz) 20 to 6,000,000 Hz. The methods used to achieve this vary a bit from one manufacturer to another, but they come down to a simplified version of the commercial-unit arrangement of a rotating moving head (or heads) as well as a moving tape.

The ½-inch video tape passes either partially or fully around a spinning drum that contains one or two heads. The tape actually travels at a speed ranging from about ¼ to 3 ips, depending on the specific machine and possibly the tape speed selected (at least one machine provides a choice of speeds). The “wrap” of the tape around the head drum is on a slant, so that the revolving heads sweep in a series of diagonal “slashes” across the tape instead of in a single continuous track. This technique, called “helical scan,” fills up virtually the entire surface of the tape (except for a narrow strip along the edge that serves as an audio track) and permits an enormous amount of information to be packed on (in one system something over 430 of these slashes can be recorded on one inch of tape). Still, this high recording density is barely adequate for the huge bandwidth requirements of color video. And, needless to say, the mechanical tolerances have to be extraordinarily accurate for a piece of home equipment. Should you be interested in a more detailed technical discussion of the subject, pick up a text on the basic theory of color television—something far beyond the scope of this article—and work up from there. Meanwhile, the diagrams on page 67 should help you visualize the whole thing.

In an audio cassette machine, the tape remains within the cassette shell and follows a straight path across the heads, which protrude into the cassette’s openings. Very straightforward. However, in all but one TV deck, when the cassette is put in place mechanical fingers enter it and pull the tape out to engage the external head drum. Of course, the specifics of the tape-extraction scheme and the design of the tape path vary from one manufacturer to another. The one exception (mentioned earlier) is the VX-2000 system, in which the tape always remains within the cassette.

There are presently four different VCR systems available. They are, with the names of the companies that developed and manufacture them:

- Beta
- Sony
- Video Home Systems (VHS)
- JVC
- V-Cord II
- Sanyo
- VX-2000
- Matsushita (Panasonic)

All of the units available as of this writing, regardless of the brand name on them or their external appearance, belong to one of these systems and are

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made by one of these companies. For example, the machines marketed by JVC, RCA, Magnavox, Panasonic, and a few others belong to the JVC VHS system.

To complicate matters further, Panasonic seems to be involved with two different systems. Panasonic is one of the brand names used in the U.S. by the Japanese company Matsushita. Panasonic (under that name) is marketing the JVC design, JVC being partly owned by Matsushita. But Matsushita appears also as the manufacturer of the VX-2000, and this machine is marketed by one of these companies. Maybe this will help simplify things for you. Maybe not.

Five years ago, when I bought my first videocassette recorder, it never occurred to me to look for prerecorded cassettes. After all, I reasoned, with New York's seven VHF channels, several UHF stations, and cable programs, my television set was a rich source of material. Furthermore, I could point my camera (an accessory that cost more than a more sophisticated videocassette recorder costs now) in some rather interesting directions.

Within a few months, I had built up a sizable library of movies, documentaries, Nixon's last, pitiful attempts to save face, choice moments from the Watergate hearings, and an egocentric collection of my own appearances on TV talk shows. With my camera, I had also captured an hour of my 1973 New Year's Eve party, the last days of Mingus (my late Doberman) and the first days of Bessie (his successor), a famous pop star scrambling eggs in my kitchen, and assorted views of Central Park from my sixteenth-floor apartment. Not the sort of thing one entertains guests with.

Although you won't find many of them lined up on your video dealer's shelves, there are prerecorded cassettes to be had. In fact, I first became aware of one couple of years ago, when a visit to New York's annual Video Expo put me on a number of mailing lists. Soon I began receiving offers of video programs—for purchase and/or rental—but, considering prices and contents, there was not a tempting one in the lot. Some examples: "The Eternal Frame," a re-creation of the Kennedy assassination in which Jackie Kennedy is portrayed by a man; X-rated dramas with such titles as "Check My Oil, Baby," "Three on a Water Bed," and "Faster Pussycat, Kill! Kill!"; courses in speed reading, industrial hydraulic technology, and life-insurance sales; and a twenty-minute documentary on people suffering from chronic pain. My particular favorite was a fifteen-minute lesson on how to look for a job—it sold for $240. One of the largest catalogs came from Time-Life Multimedia, offering for two to three hundred dollars each the very same programs I could tape from my local Public Television station for the price of a blank cassette (about $19).

Not until 1977 did the video industry begin to go after the home market in earnest. A good variety of videocassette recorders is now available at reasonable prices, and we are already seeing the appearance of more sensibly priced, consumer-oriented software, but most of the offerings still consist of material originally produced for other media: feature films, television programs, etc.

Five manufacturers. Maybe this will all of them will be coming from only half brand names to choose from, but anyway, you'll be finding something like a dozen and a half brand names to choose from, but all of them will be coming from only four manufacturers. Maybe this will help simplify things for you. Maybe not.

The Cost

The VCR's are being marketed in two different forms at the moment. You can buy just the deck itself and operate it in conjunction with an existing TV set or you can buy a complete console incorporating both. Thus far only Sony, Zenith, and Curtis Mathes (a regional supplier in the Southwest) have announced the availability of consoles in predictable furniture styles.

Even if you buy just the deck, it won't be cheap. "List" prices range from $995 to $1,300. Discounting has already begun, however, so you may find some very substantial price breaks, depending on your locality. Sony units have already been advertised at prices as low as $795 in New York City.

In any case, it would be advisable to check carefully on the availability of service in your area. These new devices are certainly beyond the experience of your neighborhood TV repairman, and probably even of the dealers selling them, unless they have undergone special training and stocks the necessary parts. There are special training courses being given by some manufacturers, and of course some repair people have already been exposed to the Betamax. But, if at all possible, don't put yourself in the position of having to ship your deck cross-country should it suddenly fail—and of course it's too early to comment on the likelihood of such an event.

The Uses

Let's say for the moment that you've already gone out and plunked down a nice chunk of cash for one of these little beauties. Now what? The use the manufacturers seem to be pushing hardest is what they refer to as "time shift." This simply means watching a given piece of material at a time other than when it is originally broadcast. There are two subsections to this:

(a) Recording Kojak at home while you're out seeing Star Wars or bowling—or something. This way you can see Kojak at another time when it's more convenient.

(b) Recording Kojak while you're watching The Six Million Dollar Man, or whatever. This way you can also see Kojak another time when it's more convenient.

What this comes down to is your having the ability to rearrange time. At least
insofar as TV programming is concerned. You need no longer be victimized by the TV networks' competitive counter-programming—their practice of airing one popular program opposite another in the attempt to knock down the other's ratings. As unlikely as it might seem at the moment, if a large enough percentage of homes get these recorders, it could significantly alter the networks' programming practices and, possibly, their income. This might account for the networks' appearing to be something less than enamored of the whole VCR idea. And, of course, the consequences for the Nielsen rating system are mind boggling.

Another possible use for the VCR is to build up a tape library. Should you decide (though I can't imagine why) that that episode of Kojak you recorded is really memorable, you can keep the tape and view it again—and again and again—whenever the mood strikes you. Also, prerecorded material is being made available from a number of sources, and much more is bound to come. There's a fairly large variety of feature-length films, both old and recent, already or soon to be ready for sale or rental. There will also be sports material, how-to and medical information, porn (!), and other educational programming, as well as material originally presented on broadcast TV. Prices vary, depending on length and recording format, but they are high. At the moment, a feature-length film goes

...
for upward of fifty dollars. (One factor involved here is the lack of high-speed duplication of recorded tapes—an hour-long tape takes an hour to copy. This isn't expected to change for at least three years.)

Another VCR use that comes readily to mind involves the addition of a camera for what would amount to your own “instant” home movies. You’d be able to see immediately what you’d shot and even decide right then if it needed to be redone. What you might do with this capability we leave to your own imagination and inclinations: anything from the kiddies’ birthday party and suchlike to . . .

The Accessories

The prices mentioned earlier do not include accessories. Except for units listing the timer and microphone as optional, “accessories” means cameras. One of these can add quite a bit to the cost: most companies make available a black-and-white camera at $300 to $400. JVC lists two different color cameras, one at $1,500 (more than the price of the deck), and another, fancier job at an interesting $2,150! Toshiba also has a color camera at $1,700.

These cameras are all small enough (in size, if not price) for easy home use. The black-and-white units are about the size of a home-movie camera, and the color units are not too much larger.

While we’re on the subject of the home-movie aspect of TV recording, one possible competitor, Polaroid, is now marketing a “Polavision” instant-movie system. It employs what looks like a standard home-movie camera except that it uses special film in a special cartridge. Once the film has been shot, the cartridge is placed in the Polaroid player, a projection device that has a built-in 9½ x 7½-inch screen, and the film is automatically processed and shown in about 90 seconds. In some large metropolitan areas, the $995 Polavision system is being sold for about $600—and, for many users, it will serve at least some of the same functions as a VCR.

One final point about home movies: accessories and services will shortly be available for copying home-movie film and slides onto video tape. At least one company, Sony, has announced that it will have available a service to restore the color on old, faded movie film so that it will look like new in the tape rendition—and the tapes, of course, won’t fade.

Incompatibility

In video, unlike audio, you can’t will-nilly transfer a cassette from one company’s machine to another company’s machine and expect it to work; it may, and then again it may not. While the machines all look pretty much alike on the outside, their inner workings vary. For example, the Sony system is not compatible with Quasar. Since a number of different brands are clustered under two of the four different systems listed earlier, there is a certain amount of incompatibility between brands, if not between systems. Check the accompanying table to see what will work with what. Some companies already have plans under way to market more than one system, so this whole business may get more complicated before it gets any simpler. And simpler it will have to get in time. It seems rather unlikely that four different systems for achieving the same end can coexist on the market for very long.

Although many large companies are already deeply involved, it would be most surprising if one or more of the competing systems were not eventually withdrawn from the marketplace. How far out on a limb that would leave owners of any equipment made obsolete by such a withdrawal remains to be seen.

The Tape

We’ve talked a lot about the hardware, but what about the software (tape)? For those interested, there’s the prerecorded material already mentioned, but most people will want blank tape to make their own recordings. A few of the companies marketing the decks will also distribute blank tapes under their respective labels. How much will these video cassettes set you back? Sony’s two-hour tape “list” for $16.95, the one-hour at $12.45. Quasar’s cassettes will run $24.95 for the two-hour length and $16.95 for the one-hour. (Polavision’s 2½-minute movie cartridge lists for $9.95.) Some companies have announced lower prices, but the pricing, as is true of much of the equipment discussed in this article, is in a state of flux and subject to change.

The supply of blank tape from other familiar names may be a bit slower in coming. The manufacturers have to be licensed by the patent-holding developing companies, after first deciding if they even want to get into this field. Note that video tape isn’t just audio tape packaged differently; it is a completely different product. 3M has begun distributing tape in the Beta format and at the time of this writing was planning to introduce a VHS tape under the Scotch label in the spring of 1978. TDK has already begun supplying JVC with private-label tape in the VHS format and will market under its own name in time. Maxell expects to market under its own name as well as that of Hitachi, the parent corporation. The other major tape manufacturers are holding off for the moment, perhaps to see how things go.

The Legal Questions

One interesting aspect of home video recording is that there is a vague possibility that the whole thing may one day be declared illegal! In a joint action, Walt Disney Productions and MCA’s Universal City Studios have brought suit against Sony. The contention is that recording off the air is infringing on the copyrights of the owners of filmed material belonging to TV production companies. Such a suit, if successful, would be an effective roadblock for the entire industry.

The equipment manufacturers claim there’s no legal basis for this action, but you’ll notice that they’re putting warning notices in their advertising to the effect that the video decks are intended only for “personal” use. This situation may take years to resolve.

The Video Disc

You say you don’t care about recording, just playback of existing material? You don’t feel like kicking in a grand or more for a machine? Well, fear not, we’ve got something for you, too (and it may even be available by the time you read this)—the video disc.

Until recently there were two major contenders for this market: RCA and MCA-Philips (in a combined effort with Magnavox). A third giant is now looming on the horizon, however, in the corporate personage of Matsushita.

In brief, the discs, regardless of the system involved, will have pretty much the superficial appearance of a standard LP. Don’t expect, however, to be able to connect your present turntable to your TV, for these discs are as different from the audio version as video tape is from audio tape.

The MCA-Philips system, which is recorded from the center to the outside (as were some early phonograph records prior to the outside-in standardization required for record changers), utilizes a disc that rotates at 1,800 rpm and has the TV information encoded in tiny indentations, or “pits,” in the record
# VIDEO DECKS ON THE MARKET: FOUR FORMATS, FIFTEEN MODELS

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<tr>
<th>Format</th>
<th>Supplier</th>
<th>Model designation</th>
<th>Dimensions</th>
<th>Weight (lbs.)</th>
<th>Moisture sensor</th>
<th>Maximum time capacity (hrs.)</th>
<th>Remote control</th>
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* Three-hour cassette due shortly.  NA = information not available.
1 June-July availability.
This partial listing is given for general reference purposes only and may well change by press time. Check with your dealer for latest details.
surface. This surface is coated over with a clear protective material (there are no "grooves" as we know them), and the information is read optically by a laser-beam arrangement. The obvious advantage of this is that there is no physical contact with the recorded material, hence no record or stylus wear.

It was originally intended that these discs would carry thirty minutes of program and that the system would be available by now with a player going for $500. (The player is about the size of an ordinary turntable, but it is a lift-the-lid-and-slide-the-disc-in arrangement.) Some redesigning is being done to increase playing time to a full hour or more per disc, however, so a delay has been announced, the new scheduled availability being this fall.

When the players do become available, there will be material ready to play on them, this being MCA's part of the venture. Quite a number of films, ranging all the way from Lives of a Bengal Lancer and All Quiet on the

Western Front (can you ever forget that hand reaching for the butterfly?) to Jaws and The Sting have been put on discs, along with a variety of other material. The price is expected to be about $10 or less per disc.

It's claimed that the MCA system will offer the advantages of slow motion, reverse, stop motion, and one-frame-at-a-time viewing. The RCA and Matsushita systems are somewhat similar to each other, but quite different from the MCA. They utilize variations of stylus and groove recording, the former being a variable-capacitance playback and the latter incorporating a "twist stylus" system that uses a special piezoelectric material for conversion of mechanical vibrations into voltage fluctuations. The Matsushita is recorded by the hill-and-dale (up-and-down rather than lateral stylus motion) method, again like old phonograph records. Both the RCA and Matsushita video discs (dubbed "Visc") rotate at 450 rpm.

Playing time will be thirty to sixty minutes per side, and the discs of both systems can be manufactured using the pressing-plant equipment that serves for standard audio discs, but the discs are not interchangeable between systems. Just when these might be available is not yet clear. But at least one company, Magnavox, feels that the disc and tape systems will be able to coexist, as they do in audio, and is backing both. Incidentally, the MCA-Philips cooperative is now also working with Pioneer in Japan and may possibly come out before Magnavox with still another system, named Universal-Pioneer.

So there you have a picture of what may be the television picture in your future—or even present—depending on (1) what you do, (2) what the manufacturers do, (3) what the retailers do, and, most important, (4) what the buying public does.

MEANWHILE, back at the plant in Germany (not everything happens in Japan), the well-known tape manufacturer BASF is hard at work on a new system using quarter-inch tape cassettes. It turns out that BASF's major competition in this area may be our own Eastman Kodak, working through its French magnetic-tape facilities. And Sony is finally bringing to market (for $3,000) the long-promised audio digital-recording adapter for its Betamax video recorder. What all this means for the future of home video and audio recording remains to be seen—and heard—but the next couple of years look very interesting.

VIDEOCASSETTE SOFTWARE

THERE IS no shortage of prerecorded video cassettes for those who want them. Here is a partial list of suppliers and their wares. Note that although addresses are included, these organizations generally work through dealers only, and not usually by mail-order.

- Magnetic Video Corporation, Industrial Park, Farmington Hills, Mich. 48024. The offering here is a list of fifty movie titles licensed from 20th Century Fox, including Gentleman Prefer Blondes, The Razor's Edge, and Patton. On both VHS and Beta, two-hour cassettes retail for $49.95, longer movies for $69.95.

- Entertainment Video Releasing, 1 East 57th Street, New York, N.Y. 10022. Through its distributor, Video Warehouse, Inc., P.O. Box 275, 500 Highway 36, Atlantic Highlands, N.J. 07716, this company makes available its 1978 Home Video Showcase Collection. This covers a wide variety of family, children's, and "adult" motion pictures. On both Beta and VHS formats (and U-Matic)

are such general titles as My Son the Vampire and The Jaws of Death. For children, Pinocchio and Treasure Island; for non-children, such titles as 1001 Danish Delights and Cry Uncle. Children's and family titles retail from $29.95 to $49.95, adult titles (those "delights" aren't pastryl) for $59.95.

- Golden Tape, 341 Foothill Road, Beverly Hills, Calif. 90210. This company offers a library of one-hour tapes concerned mainly with sports, car racing, rock-music concerts, and animated entertainment. Prices are about $55; available on both VHS and Beta.

- Sports World Cinema, 2367 Murray Holliday Road, P.O. Box 17022, Salt Lake City, Utah 84177. Sports-oriented programs—motor sports, skiing, and football—as well as some "art appreciation" tapes such as "A Potter's Song" and "Creating with Clay." In both VHS and Beta, suggested retail price is $60 per title.

- Time-Life Video, Time & Life Building, Rockefeller Center, New York, N.Y. 10020. Ten hundred programs of "cultural entertainment" are offered for sale or rent to educational institutions by Time-Life Multimedia (P.O. Box 644, Paramus, N.J. 07652). Through Time-Life Video the home consumer can now acquire (from retailers or by mail order) the Great Programs collection, a set of eight videocassettes of approximately one hour each. The set costs $300 and includes such titles as "Civilisation," "Life Goes to the Movies," and "Rose Kennedy Remembers." These are available at present only in Beta format, but VHS may be distributed later, and there are plans to add other programs in the future.

- Video Film Service Corporation, 6 Parker Place, 2600 S. Parker Road, Suite 164, Denver, Colo. 80232. Sports, comedy, and musical subjects are available in either VHS or Beta format for $39.95 per two-hour program.

And good news for the home video recordists: supplies of blank video tape for all formats are expected to be available soon from a variety of manufacturers—3M, Memorex, Sony, Maxell, Ampex, and Fuji.
"The Best Fidelity I Ever Heard..."  
Louis R. Virgil, Bricktown, NJ

"like sitting in front of a live band..."  
Gene Collins, Downey, CA

"all recordings should sound like this..."  
Richard Green, Skokie, IL

"Far better than my 400 other conventional records."  
Dennis Schneider, Canoga Park, CA

"Super—Just Super"  
Mark Schafer, Green Bay, W

"Greatest thing that ever happened to sound."  
Lou Ferronato, Jr., San Francisco, CA

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CIRCLE NO. 11 ON READER SERVICE CARD
DIRECT-TO-DISC RECORDINGS

A Stereo Review Survey
Two experts debate the
PROS AND CONS
of direct-to-disc recording

Making a recording by the direct-to-disc method means using technology as "primitive" as that of the earliest Edison talking machine and as up-to-date as that of the modern automated disc-cutting lathe. Like other record-producing systems, the process is part science, part art, the difference in this case being that the finished recording (though not the actual playable disc) is created while the performance is going on.

When the performance begins, the cutting lathe immediately starts to scribe a groove on the master disc; when the performance ends, the lathe stops—and the creative part is over. There are no retakes, no editing, no readjustment of dynamic levels, no corrections or repairs, and no second thoughts. What is left is the multi-step process that enables the disc to be mass-produced for retail distribution.

Contrast this with the conventional tape-recording session, with its opportunities for retakes and subsequent editing and mixing, and you can readily see that direct-to-disc (hereinafter referred to as "D-D") is a very different, more difficult, and potentially much more chancy way of making a record. Why do it, then? The reason its proponents give is that the method produces a superior sound quality—but is that extra quality worth the trouble?

That's the question we asked two eminent authorities in the recording field. One is Doug Sax, a musician/engineer who (with partners Sherwood Sax and Lincoln Mayorga) has been responsible for the series of D-D recordings issued on the Sheffield Lab label. The other is Charles Repka, a well-known audio engineer and consultant who is equally at home with disc and tape media. The question has two principal aspects: (1) Is the D-D approach in some way technically/audibly superior, making it worthwhile to bypass the tape-recording stage in record making? (2) Can (will) performers stand up to the pressures of a D-D recording session in which a mistake may mean starting over from the very beginning even when you have almost reached the very end? A third aspect, implicit in the other two, is whether the consumer should be asked to pay the higher disc prices (typically two or even three times that of a conventional disc) this production method makes necessary. As we'll see, there are several ways of looking at these matters.

--Ralph Hodges

° Stereo Review: Doug, why are you using the direct-to-disc approach? And Charlie, why do you favor using tape as part of the recording process?

° Doug Sax: If you record the same signal both on a tape and directly on a disc, it is more accurately recorded on a disc. That doesn't necessarily mean you get a good record if you don't use a tape recorder, but you can preserve more of your original electronic audio signal using D-D than with a conventional tape machine. The D-D recording also sounds superior, particularly with respect to low-frequency phase shift and response as well as peak-signal headroom, and with respect to asperity or modulation noise—the noise generated by the tape-recording process.

° Charles Repka: I find that the modern state-of-the-art tape recording is equal to D-D recording in all aspects and superior in some. I'm referring specifically to recordings made at 30 ips using a wide track width such as two tracks on 1/2-inch tape or four tracks on 1-inch tape. This approach is used by Dave Hancock, Mark Levinson, and others, and, combined with special electronics and special equalization, it results in a recording on the tape that is virtually indistinguishable from the console output. The peak headroom is essentially that of the electronics, and I would compare the tape-modulation noise level to that of the noise generated by the plating process during disc manufacturing. As far as low-end phase shift is concerned, there have never been any conclusive tests as to the audibility of phase shift with music programs. Also, Doug, what do you do about the high-frequency losses and tracing distortions that occur as you cut closer to the center of the disc?

° Sax: First of all, it's pointless to discuss the audible merits of tape versus disc at this time. Sheffield's experience shows the differences to the ear to be enormous, however. We are therefore open to performing a direct A-B comparison with our disc-cutting equipment and any 30-ips tape machine. And we are prepared to supply the live sound source and microphones for such a comparison.

We have tracked down countless devices, including amplifiers, that supposedly compare in audible "neutrality" with a straight piece of wire. We can only conclude—from the reports we hear elsewhere—that many who have applauded this neutrality are either lacking in the means to perform valid listening comparisons or they have some terrible-sounding wire.

As to the high-frequency losses from tracing distortion, we live with them. You can't, of course, sell a 30-ips tape. It has to be converted to disc, so both techniques suffer the shortcomings of the plating/pressing process, and, depending on how carefully the processing is done, this can be anything from quite dismal to amazingly good. The main point is this: we're going onto the disc with, in effect, a distortionless "piece of wire" and you are using an extra intermediate step, which is the 30-ips tape.

° Repka: Not exactly a piece of wire. You still have the mikes and a console.

° Sax: Yes, but both techniques have mikes and a console, and the output of our console goes directly to the cutting lathe and yours goes to the 30-ips tape.

° Stereo Review: How do recording techniques vary between normal and D-D recording sessions?

° Repka: There are no magic techniques or special mike placements that will guarantee a good recording. Every session is different, and every engineer has his favorite mikes and ways of placing them. Using tape gives the engineer and producer the ability to correct mistakes at a later time and at a lower cost. Multitrack tape can give the engineer and the performer a chance for additional creativity (via overdubbing) that is not possible in a "real-time" D-D situation.

° Sax: I don't really do anything different for a disc session. It's the same ball of wax, so to speak, except that I have to mix all the mikes instantly to two tracks and feed the results to the cutting lathe. Unlike the case with multitrack tape, we can't overdub something else later on, or add more bass or less guitar. But our costs are very much in line with the costs of the same number of musicians recorded conventionally, because we don't have to pay for the additional overdub time and then the mixdown time.

° Repka: But you do have some problems not present in taped sessions. What do you do about the lack of a "preview" signal?

△ Erich Leinsdorf conducts the Los Angeles Philharmonic in a Sheffield D-D recording session (see page 75 for the results).
And how do you handle out-of-phase signals to control vertical modulation on the disc? Do you mike more conservatively and wind up with less stereo spread? [Technical note: When a normal disc is being cut, the master tape is played back on a special machine with two playback heads. A "preview" head, spaced a proper distance along the tape path before the normal playback head, "sees" the recorded signal first and sends a signal to a computer in the lathe that permits it to anticipate and compensate in groove spacing for sudden changes in loudness as well as out-of-phase signals.]

Sax: I'll repeat again, you are not getting the same audible quality with a 30-ips tape machine. As for editing, we get around this problem by allowing two to three sessions for rehearsal and miking for everyone, including the disc cutter. This way we can see right away if there is a problem in a particular musical passage and correct it for it during the actual recording. And we make no sacrifice as far as stereo separation is concerned. Our records have close to an unbelievable quality with a 30-ips tape really has the advantage. There are no extraneous signals to a computer in the lathe that permits it to anticipate and compensate in groove spacing for sudden changes in loudness as well as out-of-phase signals.

Repka: But all of that work would be unnecessary if you could edit. And doesn't it put an additional strain on the musicians? Recording sessions are tough enough as it is. I've seen any number of musicians freeze when put in front of a mike or when the Record light goes on.

Sax: We've never really had a problem with that. What we do get is more involvement, and often, not always, we get more music because the musicians are more involved. One of the things that no one has ever talked about in regard to D-D is the fact that it takes a good record producer and good production. And part of that is allowing enough time for the musicians to get comfortable with the situation.

Repka: Do you see any way of increasing the playing time on direct discs? Do you foresee the day when you could cut something like the first two movements of Beethoven's Third Symphony (over 50 minutes) on a single side?

Sax: The upper limit on D-D playing time appears to be about 20 minutes. I could probably record Beethoven's Third by dropping the recording level and squeezing it in. But I would rather do it by making the sacrifice of breaking the movements to spread the symphony onto four sides.

Stereo Review: Do you have any final comments or any predictions for the future of D-D?

Repka: I still feel that a record made from a high-quality, high-speed, wide-track two-channel tape machine can sound just as good as D-D, but only if great care is taken every step of the way. As a recording engineer, I've heard many superb master tapes lose their quality as a result of mediocre cutting, sloppy plating, and noisy pressings. Disc quality is one area where D-D often is definitely superior—but, in my view, that's because of extra care in disc production, not because of the D-D process itself.

As for the future of D-D, I see two areas of concern, one technical, the other musical. On the technical end there may be competition from digital tape and the pulse-code-modulated (PCM) disc, but only if the various recording-equipment manufacturers can agree to common technical standards, solve the editing problem, lower the price, and improve the process. Another possible competitor is the encoded disc. I've just heard that dbx plans to introduce a series of dbx-encoded discs and a low-cost disc decoder. [Decoders and a few such discs have actually been available for some time.]

On the musical side, many D-D recordings are being done with unknown musicians and are, at best, only average performances. Many audiophile record buyers right now are willing to overlook this, but as the novelty wears off, the quality—and the prestige—of the musicians will have to improve.

Repka: Absolutely. D-D is still in embryonic form, but it has proved that it has merit. I think that our recordings with Harry James, the Los Angeles Philharmonic, and many others show where our musical standards are at. I find the idea of a noise-reduced disc to be very promising because it offers something that doesn't exist today—virtually silent discs. I, for one, cannot take advantage of it right now because of the limited number of decoders in the hands of listeners. It's not practical for me to produce 30,000 or 40,000 pressings when there are so few decoders out there. But if the number of disc decoders in audiophile systems increases...well, we'll see. We've investigated one or two digital machines and don't feel at this time that the technique answers our problem, which is finding a storage medium that is superior to a disc.

The important thing is that if I can play a record and it has the dynamic range and the clarity that I want to hear and enjoy, I don't really care much how it was made. At the moment I find D-D to be the best way, but if in the future it can be done with tape, or digital, or what have you, fine, it's the final result that matters.

Repka: And that's something I can't really disagree with.

Stereo Review: Amen!

PRO: Doug Sax . . . "The original audio signal is better preserved with D-D recording than with tape."

CON: Charles Repka . . . "State-of-the-art tape recording is equal or superior to D-D recording."
Two “golden ears” check out the SOUND QUALITY of direct-to-disc recordings

By Arnis Balgalvis and Ralph Hodges

No question about it: after a long series of careful listening sessions, at least two dedicated audiophiles have renewed enthusiasm for the potential sound quality of disc recordings. Over the years, both of us have owned or at least listened to most of the new, esoteric, high-end hi-fi equipment. And we’ve bought many records touted as being sonically “the latest and greatest” to be played on this equipment. But we’ve wound up treasuring only a small number of those discs. The software, in general, has not come even close to providing the sonic quality our equipment is capable of.

Now, finally, a growing number of small, specialized companies are making records for audiophiles like us. They have apparently adopted our criteria and are exercising the same care in overall production that we would. Their releases are like messages of hope and consolation: someone out there knows, cares, and understands! The whole experience of listening to these records has been just a bit . . . well, overwhelming.

The ones that have impressed us most have been those produced by the direct-to-disc (D-D) techniques. The process of D-D recording involves certain difficulties, and there is enormous pressure on everyone concerned because of the impossibility of the retakes and editing that are standard procedures in recording with tape. We are sympathetic to these artistic problems, but, frankly, what really matters to us is the quality of the finished product. If an excellent thirty-minute LP side is next to impossible with D-D techniques, so be it. We’d rather listen to fifteen minutes of well-recorded music than thirty minutes of technical ineptitude. And the higher cost (roughly $10 to $20 per disc) is not a matter of great concern. We already have thousands of dollars invested in our playback systems, much of which is wasted unless we can find recorded material worthy of their sophistication. Therefore, we are willing to put up with high cost and an assortment of other inconveniences to get a good record.

Not all D-D recordings are good. To date we’ve listened to about sixty of the latest under a variety of playback conditions and with different equipment (see box on page 77) and from those we’ve picked out the ones we find exceptionally good. The rest are by no means bad, but they do—perhaps because of their inherent fidelity—reveal the errors that can be made in miking, mixing, and later production work. From the best we’ve selected a “golden dozen” that we believe every serious audiophile should obtain—and obtain quickly. Since all D-D recordings are limited editions, speed in ordering is vital. Some out-of-print D-D recordings are reportedly selling for as much as $200 per copy, and none of them were produced more than about four or five years ago.

• PROKOFIEV: Romeo and Juliet (excerpts). Los Angeles Philharmonic, Erich Leinsdorf cond. SHEFFIELD LAB LAB-8.

This and the recording listed just below are, in our opinion, the pick of the lot. Be warned that the most sophisticated playback equipment is required for best results. We have heard components of exalted reputation get into very serious trouble (mistracking and amplifier clipping) with this recording. The disc’s dynamic range of 52 dB, the highest we measured in our evaluations, is quite impressive compared with what is available on most conventional recordings, and it goes a long way toward authenticating Sheffield’s claim of no compression of recorded dynamics.

That Sheffield was able to mount a recording project of this magnitude is a tribute to the vitality of D-D and the market for these records. We won’t—and cannot—attempt to tell you just what this disc sounds like, except to say that in the acoustic context of its recording site (which we think is a little less than ideal) it sounds indubitably correct. When conventionally made recordings provide the energy at low and high frequencies that this disc has, we’ll willingly accept taping. (Lincoln Mayorga and Doug Sax, producers; Doug Sax and Bud Wyatt, recording engineers.) See critic David Halli’s review on page 92.


Although the familiar Ride of the Valkyries may be the first thing you seek out on this recording because it is so loud and showy, you will surely be entranced by the glorious detailing of wind and string parts in the quieter selections and by the dynamic shadings of the orchestra, which come across with uncanny realism. A major record label might use more than thirty microphones in an effort to capture a performance like this—and miss it entirely. The Sheffield Wagner and Prokofiev recordings were picked up with a single stereo microphone some twenty feet behind the conductor.

We’ll leave you to judge for yourself how this recording compares with the typical commercial product. However, it seems destined to become a joy and a necessity for serious audiophiles and a permanent rebuke to “multimikers.” The dynamic range measured 50 dB. (Lincoln Mayorga and Doug Sax, producers; Doug Sax and Bud Wyatt, recording engineers.) See critic David Halli’s review on page 92.


A D-D recording on the RCA label! The prominent logo came as a shock to us also, but this is a 45-rpm Japanese product of RVC Corporation, processed and pressed by JVC (hence the RCA affiliation), and distributed in this country by Audio Technica. Some may object to the apparent close miking, but we have never heard piano sound in this case from a Bosendorfer Imperial) so sweet, radiant, full-bodied, and alive, with a dynamic range that is overwhelming. It measured 48 dB, which is very wide by any standard, but having listened to the record, we expected an even higher figure.

The Appassionata is meant to begin softly, and it does so here. But after the first thirty-five seconds, if you’re not close enough to your controls to readjust the volume, you may regret it. One of our several pressings was distinctly below state-of-the-art quality. (Hiroshi Isaka, producer; Masaki Ohno, recording engineer.)

(Continued overleaf)
**DIRECT-TO-DISC**

*VIRGIL FOX: The Fox Touch, Volume One.* Virgil Fox (organ). **CRYSTAL CLEAR CCS-7001.**

The flamboyant Mr. Fox has a clear winner with this record, which has the most thunderous bass we have ever encountered under home-listening circumstances. The material—largely J. S. Bach and including the inevitable D Minor Toccata and Fugue—is appropriate to the wall-shaking proceedings. Recording engineer Bert Whyte has stated that there is honest 16-Hz energy here and plenty of it. We did not verify the statement, but we can say that whatever is there slams the viscera around like a medicine ball would. The upper registers of the instrument are equally glorious. (Ed Wodenjak, producer.)

*DAVE GRUSIN: Discovered Again.* Dave Grusin (piano); Ron Carter (bass); Lee Ritenour (guitar); Harvey Mason (drums); Larry Bunker (percussion). **SHEFFIELD LAB LAB-5.**

The Sheffield Lab people consider this one of their finest "studio" jobs, and we have no argument with that. Grusin is a composer/arranger with many film credits, and his work here is certainly suffused with drama. Save side one, band one for a contemplative mood and move immediately to band two. You should particularly enjoy its exemplary string bass and percussion. (Lincoln Mayorga and Doug Sax, producers; Bill Schnee, recording engineer.)

*ROB McCONNELL AND THE BOSS BRASS: Big Band Jazz, Volume I.* **UMBRELLA UMB-DD4 (two discs).**

The Boss Brass group has about twenty members and lots of energy. Brass dominates, and a fine brass sound it is, with attacks so sharp and stinging that fine supporting evidence is provided here for those who feel that D-D is the only way to go. Equally satisfying is a sense of acoustic space and "air" around the performers. We also liked Volume 2 of this series, but felt that Volume 1 had the edge. (Jack Richardson and David Greene, producers; David Greene, recording engineer.)

*THE L.A. 4: Pavane pour une Infante Défunte.* **EAST WIND EW-10003.**

The record jacket's diagram of the studio setup shows the musicians isolated by acoustical panels (a common recording technique). Fortunately, they don't sound that way. This is the most intimate recording of this first twelve, but the close-miked sound is mercifully unmarred by spatial distortions and distracting shifts of perspective. The disc's "alive" quality is particularly evident in the wire-brush work on the drum set and in the flute, while the bass is extremely satisfying. (Toshinari Komuma, executive producer; Lee Hershberg, mixing engineer.)

*RANDY SHARP: The First in Line.* Randy Sharp (vocals); orchestra. **NAUTILUS NR-1.**

We cite this recording for its vocal sound, which, although just a trifle remote, is wonderfully precise in timbre, texture, and stereo imaging. The back-up orchestra, on

WHERE TO BUY DIRECT-TO-DISC RECORDINGS

**CONSIDERING** the speed with which some D-D sources have appeared and disappeared, an attempt to print a comprehensive list of companies here would probably be of limited use. Instead, we have prepared an updated list of names and addresses that you can request by mail. Simply send a stamped, self-addressed long envelope to **STEREO REVIEW, Dept. D-D, One Park Avenue, New York, N.Y. 10016.**

An array of cutting lathes and their operators as set up at MGM Studios for a direct-to-disc recording session. The "conductor" shown reading a musical score in front of the lathe operators is there to provide "early warning" of high-level passages coming up so that the cutting engineers will be able to make appropriate adjustments in their discs' groove spacing.
the other hand, is somewhat more remote and attenuated, with a slightly pinched violin sound. Aside from that, the dynamics seemed pleasingly natural (we measured a 46-dB dynamic range). The cut to play first is *Who Ya Gonna Blame It On*; the cut to avoid is *Banjo Man*, in which we heard some distortion that *just may* have been attributable to our equipment. (Bob Jonte, executive producer.)


Here, at last, is your chance to hear music played in the celebrated acoustic environment of the Boston Symphony Hall and recorded so well that it displays the hall’s fabled glory with commendable accuracy. The multiple microphones and other devices used by the commercial companies when recording in this auditorium leave the matter of what you’re actually hearing somewhat in doubt. The simple three-mike pickup used in this production is absolutely pure, but the resulting recorded sound may be a trifle distant for some tastes. The music is of course grand, and the bass is fabulous. (Ed Wodenjak, producer; Bert Whyte, recording engineer.)

- **LES BROWN:** Les Brown and His Band of Renown Goes Direct to Disc. Great American Gramophone Company GADD-1010.

This is a band of substantial size—close to twenty members—miked at a middle distance, which is to say that the microphones were not almost inside the various instruments. There is a feeling of smooth power and solidity, and an equally welcome sense of space and spatial perspective, with no tendency for the musicians to wander or turn up in odd locations. The dynamic range is satisfying, (Glenn Glancy, producer; Wally Heider and Hugh Davidge, mixing engineers.)

- **CANADIAN BRASS:** Umbrella UMB-DD5.

Bach’s Toccata and Fugue in D Minor once more. These alone are evidence enough that it sounds exactly like the brass quintets. About all we can say about this record is that it sounds exactly like the brass quintets—on and David Greene, producers; David and that is the highest praise. *(Jack Richard-son and David Greene, producers; David Green, recording engineer.)*

- **CHARLIE BYRD:** Charlie Byrd (guitar); Joe Bata (bass); Wayne Phillips (drums); Paula Hatcher (flute); Bill Reichenbach (trombone). Crystal Clear CCS-8002.

We understand that the drum solo on side one, band two, has already acquired quite a reputation among audiophiles, and it is deserved. Some of the rim shots are enough to wake the dead. Our one criticism is of the mix (undoubtedly deliberate) that spreads the drum set over the entire width of the stage. Byrd’s guitar is “intimate” (the best word we can come up with) and delightful in its detail and subtlety. This one plays at 45 rpm. (Ed Wodenjak and Michael R. Phillips, producers; Ed Wodenjak, chief engineer.)

S**electing** the twelve records above was very difficult because it involved the weeding out of at least a dozen other discs that in some ways were quite as worthy of citation. We haven’t the space to comment on them individually, so we’ll simply list them in approximately the order in which we listened to them: “Michael Murray Playing the Great Organ in the Methuen Memori- nal Hall, Volume I” (Telarc 5036 DD-2); “Rosie O’Grady’s Good Time Jazz Band” (Direct Disk DD103); “The Direct Sound of the Glenn Miller Orchestra” (Great American Gramophone Company GADD-1020); “The Neophonic String Band” (Direct Disk DD105); “Gentle Thoughts” (JVC VDIC-1-E); “The Three” (East Wind EW-10001); “FM Direct-to-Disc” (Labyrinth LABR-1001); “Nexus Ragtime Concert” (Umbrella UMB-DD2); Schubert’s Symphony No. 5, in F-flat Major (Studio 80 S80-DTD-102A); Harry James’ “Comin’ from a Good Place” (Sheffield Lab LAB-6); “Big Band Jazz, Volume 2” (Umbrella UMB-DD7); J. S. Bach’s Concerto for Violin, String Orchestra, and Continuo in E Major, with other works (Umbrella UMB-DD9). There are more than thirty others in our evaluation that were good, but not great. And there were still others that were unmentionable in every sense.

For purposes of reference as well as review, we listened frequently to some of the other new “special-edition” audiophile records being produced by technicians rather than direct-to-disc, and we can say—with considerable fear of contradiction but few misgivings—that we much preferred the best of the D-D lot. However, the tape-processed group had several standouts. First, there was the disc “Festive Filipino,” produced by Donald Wong for the DW label. Its dynamic range of 49.5 dB, which surpasses the scores even for most of the D-D productions, vindicates the tape recorder’s capability in this area at least. Second, there were two delights from Sonar Records (which distributes on two labels): selected works by Ruggles, Mozart, Telemann, and Vivaldi (Hummar SD150) and “Bohemian Horn” (Sonar SD130). Micro Acoustics is just on the point of issuing a series of records of its own, and advance copies sent to us sound very promising. And, finally, we must commend the pressings and packaging of the Gale record series. These alone are evidence enough that the art of making good records without D-D is far from lost.
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CIRCLE NO. 41 ON READER SERVICE CARD
Mitridate: Anticipations of the Mature Mozart
In a Youthful Work of Substance and Genius

Mozart’s Mitridate, Re di Ponto was commissioned and written for the Royal Ducal Theater in Milan in 1770. This is extraordinary, not only because Mozart was not Italian and had never written a serious opera before (he had two comedies—Bastien et Bastienne and La Finta Semplice—to his credit), but also because he was only fourteen years old!

The story of an Asian despot and opponent of Rome was adapted by one of the contemporary libretto-mongers from a play by Racine. The commission had been shrewdly negotiated by Mozart’s father, Leopold, with the Austrian governor-general (Milan was then part of the Austro-Hungarian Empire, and the libretto may contain some subtle political overtones). In spite of the usual operatic intrigues, the work had a resounding success, and a series of major commissions followed.

All of these resulting works, along with Mitridate, have long been consigned to oblivion, and the received opinion is that they are juvenilia—clever pastiches by the child-genius Mozart imitating his betters. Perhaps. But now that these works have started to come out of the closet, an important question can be asked: What betters? I am a great fan of eighteenth-century opera, and I can assure you that, in the opera seria domain, Mitridate needs very few apologies to be set up next to the best serious works of Piccini, Paisiello, Hasse, Jommelli, or even the great Pergolesi. Listen to Aspasia’s G Minor aria, or the duet that ends Act II, or Mitridate’s heroic tenor arias, and then...
outstripped his elders. Except for the weak end-
look at their contemporary models or
equivalents. Almost no ensembles) which contribute
tern of set pieces. These numbers are
of recitative framing a very strict pat-
tenors. A story from classical antiquity
is arranged in an impossibly formalized
form of entertainment known as opera
seria. Mitridate is a perfect example of
the genre. It is, first of all, dominated
by high voices: male and female so-
the limits of his capacity, produces an
ming in the stupendous role of Aspasia.
Dramatic challenges are met with con-
frontation of some depth. The other
tenor, a young American named David Hübner,
is impressive in a minor role. Leopold
Hager is not a tremendously forceful
conductor, but he is a stylist who
knows how to re-create a musical ambi-
tance that is alive. The excellent pro-
duction includes texts and translations.
—Eric Salzman

MOZART: Mitridate, Re di Ponto. Werner
Hollweg (tenor), Mitridate; Arleen Augé,
(soprano), Aspasia; Edith Gruberova (so-
prano), Sifare; Agnes Baltsa (mezzo-
soprano), Farnace; Ileana Cotrubas (so-
prano), Ismene; David Kübler (tenor),
Marzio; Christine Weidinger (soprano), Ar-
bate. Mozarteum-Orchester, Salzburg, Leo-
pold Hager cond. DEUTSCHE GRAMMOPHON
2711021 four discs $35.92.

Galina Vishnevskaya: Amazing, Unforgettable
Singing from an Artist in a Thousand

SOME ten years ago, the Russian sop-
prano Galina Vishnevskaya recorded
for Philips (900 082) Moussorgsky's
fascinating Songs and Dances of Death
in its original piano version with her
husband, the conductor Mstislav Ros-
tropovich, as her accompanist. It was
an extraordinarily effective recital, but
it remained only briefly in the catalog.
The soprano has now rerecorded
the soprano has now rerecorded the
same cycle for Angel, in a beau-
fully imaginative orchestral set-
ing arranged by Dmitri Shostakovich
and dedicated to her. In purely vocal
terms, she was perhaps heard to better
advantage in the earlier effort, but her
interpretation, her penetration of the
music's spirit and wide-ranging moods
have become even more absorbing in
the new recording, which has excellent
sound in both two-channel and quadra-
phonic playback. The performance
builds unrelentingly from the soothing
opening measures of the Lullaby
through the disturbing Serenade to a
vividly melodramatic Trepak, where the
actress takes over from the singer
and tonal beauty is sacrificed to utter-
ances at times choked with passion and
at others broken by harrowing shrieks.
By the time I reached the concluding,
eree The Field Marshal, I had lost all
interest in "reviewing" the record in
the conventional sense, in marking
down plus and minus points Beckmes-
ser fashion. For there is nothing con-
ventional about Vishnevskaya's sing-
ging here: it is amazing, unforgettable,
and it simply must be heard.

On the reverse side, with rich and
effective orchestral support, Vishnev-
skaya sings four beautiful and relative-
ly unfamiliar arias. Lyubasha's aria
from Rimsky-Korsakov's The Tsar's
Bride shows that her voice is still under
firm control and in beautiful shape at
subdued dynamic levels. But even
when she falls short of the tonal ideal,
this artist remains one in a thousand.
—George Jellinek

GALINA VISHNEVSKAYA: Songs and
Arias. Moussorgsky (arr. Shostakovich):
Songs and Dances of Death. Rimsky-Kor-
sakov: Sadko: Lullaby of the Sea Princess.
The Tsar’s Bride: Marfa’s Aria (Act IV);
Lyubasha’s Aria (Act I). Tchaikovsky: The
Snow Maiden: Let’s Sing, Galina Vishnev-
skaya (soprano); London Symphony Or-
chestra, Mstislav Rostropovich cond. An-
gel (US) SQ-37403 $7.98.
Identifiable and Personal, Sexy and About to Happen: Helen Schneider

Perhaps some of you will share the sense of stunned relief I felt when I learned that just-yesterday’s Punk Rock (born-again Fifties rock) is already giving way to an offshoot that will henceforth be known as Power Pop. Or so spake some Zarathustra of the Rock Establishment just the other day. That probably means very little to the real people who, happily unaware of the status implications of having the “right” album to prop up their left speakers, actually plunk down real money to hear the music on the record. It also seems to mean very little to real singers like Helen Schneider. Schneider made an impressive debut (“So Close”) last year, and her new Windsong release “Let It Be Now” is more proof that the time is fast approaching when she’ll take her place as a major recording star. It’s all there: the secure, identifiable, well placed voice; as easy and at home with ballads as it is with rock or disco; the highly personal approach to lyrics; the unforced but omnipresent sexuality; and the born-to-the-mike manner—one of those x-factor gifts that is equivalent to being photogenic if you’re an actor. When all this fuses in the right material (as it does here twice—in the title song and in Rock Me and Caress Me), it’s as plain as Zsa Zsa’s old nose that a new star is a-borning.

One big question mark remains, and that is Timing. Schneider’s performances are genuinely different in that they reflect musical choices that are the result of a young lifetime spent hearing rock and probably very little else. She is therefore a singer of a whole new breed, and she arrives just as one era is coming to a close and another begins. As rock goes through its final convulsions (surely the last shock tactic will be Snuff Rock, which will feature the sound of the performer blowing himself up), the young-adult public’s boredom and resistance to further hype becomes increasingly obvious. Helen Schneider will have to convince that public that she is not merely more of the same thing but a brand-new synthesis of all that has gone before. She is, in short, What Is About to Happen. Tune her in and I’m sure you will hear what I mean.

—Peter Reilly

Teresa Berganza: At Home and Smiling Through the Zarzuela Repertoire

That unique brand of comic-opera/operetta the Spanish call the zarzuela contains, at its best, the most captivating and insinuating music known to me, the surest antidote to sagging spirits. There may be no depth to be found in them, but there is joy in abundance in the magical mixture of melodic charm (on a par with Vienna’s best), rhythmic vigor, and that colorful, inimitable Spanish animation. Teresa Berganza is completely at home in this repertoire, in fact, she appeared in several zarzuela-highlight recordings prior to attaining world fame in more serious works nearly twenty years ago. Those early examples of her art may be hard to find, but there is re-
ally no need to look for them now, for a new Spanish import on the Zambra label finds this consummate vocal artist in better estate than ever. Her voice has a caressing warmth enriched by delicious inflections. There is a captivating playfulness as well as what can best be described as an audible smile as she glides through the choice melodic delights of such zarzuela standbys as Chapi, Valverde, and Luna. There are also hints of a devil of a temperament—but all the while she sings like an angel.

What more need be said? Teresa Berganza's long absences from our turntables should make us all feel aesthetically deprived, and I urge everyone to seek solace by acquiring this joyful release. The zestful conducting of Enrique Garcia Asensio casts an Iberian spell over the English Chamber Orchestra, and though there may be a bit too much echo in the overall sound, everything else is perfectly in place.

—George Jellinek


Copenhagen Honors Stan Getz (And Vice Versa) on His Fiftieth Birthday

Thirty years ago, when the jazz bug first bit me, the appearance of an American musician in Copenhagen—even a relatively minor musician—was a big event. I stood in line for hours to get standing-room tickets I could barely afford, and I left the concerts in a daze, ready to take the next yellow brick road to Harlem. In those days, visiting jazz players appeared only in concert, and I recall wondering what it must be like to hear a genuine jazz star in the intimate setting of a club. You could occasionally hear Danish musicians in such a setting, but the level of local jazz musicianship was low back then and such sessions were about as poor a substitute as the ersatz stuff that passed for coffee during the war years.

The jazz situation in Copenhagen has changed considerably since then. Many American musicians now live and work there, and others visit regularly. Danish musicians have won the respect of the international jazz community, and if you want to know why, just listen to bassist Niels-Henning Ørsted Pedersen on the new Inner City release that is the subject of this review. They are so good that there are now a number of Danish jazz clubs flourishing. The most successful of them is the Montmartre, which will soon be celebrating its twentieth anniversary.

In February of last year another anniversary celebration took place in Copenhagen: the fiftieth birthday of Stan Getz. Getz had helped launch the Montmartre in 1959, and it seemed appropriate to have the Montmartre crowd honor him on this milestone day. The album marking the event was actually recorded during the week preceding Getz’s birthday, but it has been is-
sued in celebration of it, and a good celebration it is. The rhythm section, headed by Joanne Brackeen—a remarkable pianist with impressive past associations—cooks up a storm over which Getz rides with characteristic ease and agility; he is obviously very comfortable with this group, and he doesn’t hold back as I have heard him do on other occasions. Pedersen’s solos are wonderful, his tone is rich, and his sense of timing perfect—to hear him here is to understand why he is so much in demand with American musicians (Lennie Tristano went so far as to suggest that he may be the best bassist in the world). Drummer Billy Hart has been working with Getz since the early part of 1974, and he is well cast. The repertoire ranges from Alec Wilder to Wayne Shorter, with a couple of blues thrown in, but repertoire becomes relatively unimportant in the hands of such skillful, creative people as this album presents. The jazz life in Copenhagen has indeed changed. —Chris Albertson

STAN GETZ: Happy 50th Stan. Stan Getz (tenor saxophone); Joanne Brackeen (acoustic and electric pianos); Niels-Henning Ørsted Pedersen (bass); Billy Hart (drums). Morning Star; Stan’s Blues; Infant Eyes; Lady Sings the Blues; Canção do Sol; Lush Life; Lester Left Town; Blues for Donte. INNER CITY IC 1040 two discs $11.98, © 5371-1040(z) $9.95.

A Throwback: NRBQ’s No-frills Rock-and-roll for The Fun of It

A n here at last is a band to love! The group that calls itself NRBQ (stands for New Rhythm and Blues Quartet) is a glorious throwback to no-frills rock-and-roll played for the sheer fun of it. There hasn’t been such a good-time, good-natured band since the high old days of the Lovin’ Spoonful. Like the Spoonful, NRBQ mixes country, folk, rock, and light jazz into a heady brew. Some of the group’s writing touches the straightforward sentimentality and simple charm of Buddy Holly, early Lennon-McCartney, and the Spoonful’s John Sebastian. I Love Her, She Loves Me is very McCartney-like, reminiscent of I Will from the Beatles’ "White Album," while Just Ain’t Fair and That’s Neat, That’s Nice combine the essences of Sebastian and Holly.

The band has been a unit for such a long time that it hangs together wonderfu but loosely, each musician allowing the others enough room to frolic (there is something hilariously special about Terry Adams’ anarchistic approach to the keyboard). In addition to the regular members, a tenor sax and trombone are added on That’s Neat, much of rock. “At Yankee Stadium” is a delightful and welcome reminder that music is best when both the players and the audience are being honest. Three loud and prolonged cheers for NRBQ and this album. Run out and get it quick. —Joel Vance

NRBQ: At Yankee Stadium. NRBQ (vocals and instrumentals). Terry Adams (vocals, keyboards); Joseph Spampinato (bass, guitar, vocals); Al Anderson (guitar, vocals); Tom Ardolino (drums, vocals); Keith Spring (tenor saxophone); Donn Adams (trombone). Green Lights; Just Ain’t Fair; I Love Her, She Loves Me; Get Rhythm; That’s Neat, That’s Nice; Ain’t No Free; I Want You Bad; The Same Old Thing; Yes, Yes, Yes; It Comes to Me Naturally; Talk to Me; Shake, Rattle, and Roll; Ridin’ in My Car. MERCURY SRM 1-3712 $7.98, © 81-3712 $7.95.
Recall the National Symphony under conductor José Antonio Abreu which is clearly the performance to choose.

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standards, is full of character and spirit. The recording quality varies throughout the set, with the live recordings generally more attractive and life-like than the studio takes. E.S.

RECORDING OF SPECIAL MERIT

The Beethoven Violin Concerto is not music one associates with passion; most of the finest performances of it, on or off records, may best be described as "glowing," while most of the lesser ones emerge as bland. But this one with Pinchas Zukerman and Daniel Barenboim does merit the description "impassioned"—and, happily, it is still aesthetically and stylistically well within the bounds of the music. It is a youthful reading, but its solo-orchestral teamwork is comparable to that of Joseph Szigeti and Bruno Walter in their historic 1932 recording.

Most striking here is the emphasis throughout the first movement on contrast between the music's lyrical and rhythmic aspects. It is a most effective strategy, it seems to me, when carried off this brilliantly—and with the aid of such excellent recording, both in solo-orchestral balance and in general ambience. Despite noise from somewhat gritty playing surfaces on my review copy, the slow movement emerged with an almost sultry warmth. The final rondo is as sprightly as one could wish, though the main theme is played in a manner more legato than usual. The Kreisler cadenzas are used: complete in the first movement, somewhat abbreviated in the finale.

RECORDING OF SPECIAL MERIT
BIZET: The Pearl Fishers. Ileana Cotrubas (soprano), Leila, Alain Vanzo (tenor), Nadir; Guillerma Sarabia (baritone), Zurga; Roger Soyer (bass), Nourabad. Chorus and Orchestra of the Paris Opera, Georges Prêtre cond. Angel □ SBLX-3856 two discs $17.98, © 4X2X-3856 $15.98. Performance: Good Recording: Good

There are a number of successful operas—Carmen and The Tales of Hoffmann come to mind—and of course Boris Godunov—that have not been allowed to live on in the shape and manner envisaged by their composers. When their creators died, they left these operas vulnerable to ministrations by friends, well-wishers, and other "arrangers." Bizet's early opera The Pearl Fishers falls into this category: all four previous recorded versions embody changes (cuts as well as alterations) in the music as it has been previously known to us. The first concerns the ending of the familiar duet between Nadir and Zurga ("Au fond du temple saint") in Act I. Here I must dis-agree with annotator James Harding, who finds the restored original version superior; its introduction of new melodic matter makes the scene seem rather disjointed to me. The other two instances, however, are definite improvements: the expansion of the duet between Leila and Zurga at the beginning of Act III and the change in the opera's ending, which spares Zurga the indignity of being killed on stage after freeing his captives (though it leaves him facing certain death at the hands of his enraged followers). In any case, we can accept Mr. Harding's assertion that this version is "the nearest we shall probably ever get to Bizet's own personal conception."

The performance on the new recording surpasses Angel S-3603 (the only one of the preceding four versions still in the catalog), though not by a wide margin. Conductor Georges Prêtre brings skill to the task, but perhaps not enough affection. His brisk, matter-of-fact pacing tends tounderplay the sensuous character of the music. I find his conducting of "Au fond du temple saint" particularly unfeeling, as if he were unaware of its poetic and emotional qualities. Ileana Cotrubas and Alain Vanzo are both musican artists with attractive but somewhat thin-sounding voices. The sopranos accompany her well with consistent delicacy and involvement; she disappoints only with a weak trill at the end of Act II. The tenor displays an expert use of voix mixte in the old French tradition, and with a bit more tonal body he would have done Nadir's two arias not only well but memorably. Guillerma Sarabia, a resonant Zurga

THE 'ROCK PERSON'S' GUIDE TO "PETER AND THE WOLF"

Back in the not-so-dour but certainly dead days when those of us who came of age during World War II were listening to Richard Hale's orotund declamation of the text of Peter and the Wolf to Serge Koussevitzky's dashing performance of the Prokofiev score with the Boston Symphony on RCA Victor's best-selling 78-rpm album, there was no question as to the meaning of that allegorical "symphonic fairy tale." The wolf, beyond doubt, represented Nazi Germany; Peter, who so cleverly engineered the braving beast's capture, was, of course, the embodiment of our Brave Russian Ally; while dusty old Grandfather obviously represented the Forces of Reaction. The birds, the hunters, the duck? Well, their political views were a bit harder to sort out, but we all knew that the bird was a flute, the duck an oboe, the cat a clarinet "in the low register," the wolf three French horns, the hunters drums, Peter the strings—and that was enough for us. "Political indoctrination and musical education at the same time! Who could ask for more? Besides, the music was delightful.

Since those days, the political message has blurred, but the music remains delightful, and by this time just about everybody in the world has had a go at recording the narration—Sean Connery, Mia Farrow, Will Geer, Hermione Gingold, Boris Karloff, Beatrice Lillie, Alec McCowen, Ralph Richardson, Cyril O'Brien, Peter Ustinov, Eleanor Roosevelt, Julia Child, even Captain Kangaroo. The latest entry is David Bowie, London-born rock star and outer-space hero of the movie The Man Who Fell to Earth, and a surprisingly charming, well-prepared job he does of it, even to plausible characterizations of the principals. At the same time, Eugene Ormandy and his sumptuous Philadelphia Orchestra outdo themselves, turning in the most vigorous, varicolored, and superbly recorded performance of the piece to date.

This winning account is matched with a robust and scintillating statement of Britten's Young Person's Guide to the Orchestra, another painless lesson in how the instruments sound and, like Peter, as perennially fascinating to adult ears as to growing ones. As the Purcell tune on which Britten based the work goes through its series of thirteen enchanting variations, culminating in that dazzling final fugue, it is difficult to imagine a more satisfying realization than Ormandy's luxuriously yet nimble one. The original London recording with the composer at the helm was perhaps a mite more appropriately witty and astrangent, but not nearly so resplendent. Producer Jay David Saks and engineer Paul Goodman deserve a good deal of credit for the result, but the performance itself—without narration, to which this closely knit piece does not lend itself particularly well—is certainly stunning. The record is pressed on translucent green vinyl, which should appeal to any children entrusted with it, and the surfaces are uncommonly quiet for a domestic product.

—Paul Kresh

with firm and secure top notes, is at least the equal of any predecessor on discs; Roger Soyer, on the other hand, lacks the vocal weight of a true bass needed to make Nourabad properly menacing. The Pearl Fishers has its flaws, but it is a very appealing opera. Once exposed to its sinuous charm, listeners quickly take the music to their hearts. The new Angel set may not be the last word on the subject, but it is the best available version and certainly an enjoyable one.

G.J.

BORODIN: Symphonies: No. 1, in E-flat Major; No. 2, in B Minor; No. 3, in A Minor (Fragment). Prince Igor: Overture; Polovetzian Dances. Toronto Mendelssohn Choir; Toronto Symphony Orchestra, Andrew Davis cond. Columbia MZ 34878 two discs $15.98.

Performance: Disciplined
Recording: Good

The music of Alexander Borodin—the "chemical gentleman" of the Russian "Five"—emerges attractively from these discs: occasionally a mite bland, but at its best gorgeously melodic and colorful and surprisingly well put together.

The First Symphony, composed partly under the tutelage of the Five's father figure, Balakirev, has touches of Berlioz in the scherzo and of Schumann in the finale, but the first and second movements are prime Borodin and unmistakably Russian in character. The heroic B Minor Symphony, most familiar of the composer’s major orchestral works, needs no descriptive commentary here, nor does the Prince Igor music. The two extant movements of the unfinished Third Symphony, like the Prince Igor overture, owe their survival to the phenomenal memory of the twenty-two-year-old Alexander Glazounov, who had heard Borodin play them at the piano before they were fully committed to paper. It is in the Prince Igor music, especially the Polovetzian Dances, that Andrew Davis and his Toronto group do themselves proud. The chorus sings the Russian text with superb diction and the Russian choral style. Hans Ludwig Hirsch has chosen his forces with care, and the result is sumptuous, with a small chorus doubling the voices of the opera house than in the choir boards of the opera house than in the choir lofts of a church, his Messa Concertata offers some splendid moments in the sensuous Venetian choral style. Hans Ludwig Hirsch has chosen his forces with care, and the result here is sumptuous, with a small chorus doubled by trombones and accompanied by a continuo of harpsichord and viola da gamba. Strings furnish the velvety textures of the ritornelli and are apt to join either of the choruses. The rich antiphonal effects and the subtle mingling of the various forces has been beautifully captured by Telefunken’s skillful engineers. Although Carvalho is much more at home on the boards of the opera house than in the choir lofts of a church, his Messa Concertata offers some splendid moments in the sensuous Venetian choral style. Hans Ludwig Hirsch has chosen his forces with care, and the result here is sumptuous, with a small chorus doubled by trombones and accompanied by a continuo of harpsichord and viola da gamba. Strings furnish the velvety textures of the ritornelli and are apt to join either of the choruses. The rich antiphonal effects and the subtle mingling of the various forces has been beautifully captured by Telefunken’s skillful engineers. Although Carvalho is much more at home on the boards of the opera house than in the choir lofts of a church, his Messa Concertata offers some splendid moments in the sensuous Venetian choral style. Hans Ludwig Hirsch has chosen his forces with care, and the result here is sumptuous, with a small chorus doubled by trombones and accompanied by a continuo of harpsichord and viola da gamba. Strings furnish the velvety textures of the ritornelli and are apt to join either of the choruses. The rich antiphonal effects and the subtle mingling of the various forces has been beautifully captured by Telefunken’s skillful engineers.

CARPENTER: Krazy Kat. GILBERT: The Dance in Place Congo. POWELL: Rhapsodie Nègre. Zita Carno (piano, in Powell only); Los Angeles Philharmonic Orchestra, Calvin Simmons cond. WEISS: American Life. Los Angeles Philharmonic Orchestra, Lawrence Foster cond. New World NW 228 $8.98.

Performance: Good
Recording: Excellent

John Alden Carpenter’s Krazy Kat was first presented in 1922 as a “jazz pantomime” ballet in which Adolf Bohn danced the indescribable cartoon character. The action begins with Krazy’s awakening from an afternoon “katnap” and follows him through a series of ensuing adventures. A saucy piccolo solo depicts the inevitable brick throwing by Ignaz Mouse, there is a Spanish dance to clicking castanets, and the “Katnip Blues” episode ends in another “katnap” as Offisa Pup walks by swinging his club. The slightly abridged performance here is very good, though it could have a bit more satirical bite, and it is a delight to have the score—so comic, alive, and jaunty—back in the catalog. Carpenter’s Adventures in a Perambulator was also recently restored to discs, so now if we could only have a decent recording of his ballet Skyscrapers . . .

The rest of this album from New World Records contains more American music with “jazz and black elements” as performed by the Los Angeles Philharmonic. There is a somewhat sluggish treatment of Henry Gilbert’s The Dance in Place Congo, a 1906 symphonic poem depicting the Sunday revels of a crowd of “off-duty New Orleans slaves” in Congo Square at the end of Orleans Street. The piece is strikingly similar in rhythmic treatment and the reiteration of its dance theme to Darius Milhaud’s Le Boeuf sur le Toit. Lawrence Foster elicits a lively performance of American Life, the 1911 “scherzoso jazzoso” by Adolph Weiss, which combines tone rows with jazz devices to a rousing effect. Finally, there is John Powell’s Rhapsodie Nègre, a 1917 piece in which the tunes of black spirituals were buried by the composer (who was white) in exquisitely overinflated symphonic rhetoric. Calvin Simmons, who also conducts the Carpenter and Gilbert works, wrings all the eloquence he can from the orchestra, and Zita Carno lends flowery pianistic assistance, but the piece remains the only real let-down on the album.

P.K.

CARTER: To Music (see THOMPSON)

RECORDING OF SPECIAL MERIT


Performance: Grand
Recording: Spacious

Although Carvalho is much more at home on the boards of the opera house than in the choir lofts of a church, his Messa Concertata offers some splendid moments in the sensuous Venetian choral style. Hans Ludwig Hirsch has chosen his forces with care, and the result here is sumptuous, with a small chorus doubled by trombones and accompanied by a continuo of harpsichord and viola da gamba. Strings furnish the velvety textures of the ritornelli and are apt to join either of the choruses. The rich antiphonal effects and the subtle mingling of the various forces has been beautifully captured by Telefunken’s skillful engineers.

One of the most interesting features of this performance is the bold realization of the concerto style. The soloists, rather than singing like members of a chorus (as all too frequently happens in this style of music), sing out in a bold, truly soloistic fashion. They also em-
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What a way to spend a week—or, at least, the better part of it—listening to three recently issued versions of Beethoven’s late quartets. The experience might be likened to a musical drama in three acts (and a multitude of scenes). The locale of Act One is Cremona, Italy, home of the Quartetto Italiano (recorded by Philips). Act Two is in Cincinnati, Ohio, where the La Salle Quartet (recorded by Deutsche Grammophon) has been in residence at the University of Cincinnati Conservatory of Music since 1953. The drama concludes at the Library of Congress in Washington, D.C., where the historic 1952 set by the Budapest Quartet, now reissued on Odyssey, was recorded.

There is, certainly, interest enough and to spare in the music itself to justify calling this triple cycle “a musical drama.” The eleven great chords that usher in the first quartet of the sequence (the E-Flat, Op. 127) have always struck me as forming a curtain of sound rising to reveal a series of remarkable events. And Beethoven does not disappoint our expectations as, through heights and flights, aches and ecstasies, we are conducted to a closing scene (Op. 135) that combines wisdom and whimsey in proportions that even he rarely equaled.

No place in Italy could be better suited than Cremona to host a splendid quartet, and the Quartetto Italiano’s Beethoven performances further embellish the fame of the city’s great string instruments. The members of the quartet—Paolo Borciani and Elisa Pegreffi, violins, Piero Farulli, viola, and Franco Rossi, cello—are all masters of their instruments, and the Philips recording is worthy of the sounds that they produce. The real question, of course, is whether those sounds are worthy of the works they purport to present, and a brief answer is: here and there, now and then, from time to time.

It’s clear that the Quartetto Italiano has given thoughtful, serious, and painstaking attention to Beethoven’s music, and when that music conforms to the players’ outstanding gift for melodic statement, the result is uncommonly beautiful, though not necessarily in the style of Bonn or Vienna. The opening of Op. 127, for example, is rich in sonority and texture, but comes the development section and the constant inclination of the group to play laterally understates what is going on above and around. The adagio begins with the softest of pianissimos, as if it had to walk over and look to be sure the disc was revolving, and it swells to some grand effects. The scherzo is a bit of a fandango (I didn’t know Beethoven had Spanish blood). And so on.

As the movements and works accumulate, a pattern emerges. The Quartetto Italiano is so solidly centered on its own beautifully cultivated way of playing together that the encroachment of the last quartets and the opposition that repeatedly assert themselves in Beethoven’s internal dialogues, triologues, and quadralogues are seriously diminished. The andante con moto of the B-flat (Op. 130) comes off marvelously, but the incomparable cavatina of the same work sounds merely sad rather than grief-stricken. Above all, the Grosse Fuge becomes too slickly sleek to make Beethoven’s points.

In its twenty-five years in Cincinnati, the La Salle Quartet has established a reputation for high proficiency in a manner of performance that is more intellectual than emotional. However, the five final quartets of Beethoven are saturated with both aspects, and the piercing insights of Walter Levin and his colleagues here evoke a blend as uncommon as it is satisfying. All the players are no less technical, though the personnel of the prototypes with which they associate themselves (the Kolisch and Busch Quartets), and when they get to “winging” (in full, improvisatory flight) in the A Minor Quartet (Op. 132) or the faster movements of the B-flat (Op. 130), they have things to say that are both innovative and to the point.

The highest praise I can summon up is to say that the La Salle’s Grosse Fuge has dimension, sweep, grandeur, and articulation on a level previously unknown to me. For comparison, I listened again to my prior all-time favorite recording, by the Guarneri Quartet. It still holds its place for demonic, propulsive fury, but where the Guarneri version becomes blurry and fuzzy, the La Salle’s lines are of a clarity and definition marvelous to hear. Some of this may be electronically induced—the fugal entrances pop out as though a button had been pushed—but the total effect is ear-filling. Eye-filling, too, is the splendid accompanying brochures, in which Manfred Lichtenfeld’s contributions are outstanding.

As its devotees know, the Quartetto Italiano plays from memory, without scores. At the opposite extreme, the La Salle Quartet sometimes bypasses the usual single-line parts in favor of full scores (which provide “signals” not only of what is happening, but of what is going to happen). The Budapest Quartet, of golden fame, played neither from memory nor from full scores, but it did play from the heart. The four hearts beat with such unanimity and rapture in this reissued version of performances by Walter Levin and his colleagues that is more intellectual than emotional. How does it feel to have, to hold, and to set (and at budget prices), it’s the Budapest, unquestionably—to have, to hold, and to learn from.

—Irving Kolodin


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**RECORDING OF SPECIAL MERIT**

**CHARPENTIER: Messe de Minuit.** Martha Angelici, Edith Selig (sopranos), André Meurant (countertenor); Jean-Jacques Lescar (tenor); Georges Abdoun (bass); Anne-Marie Beckensteiner (organ); Chorale des Jeunes Musicales de France; Orchestre Jean-François Paillard, Louis Martin cond. Erato STU 70 083 $9.98 (from Euroclass Record Distributors Ltd., 155 Avenue of the Americas, New York, N.Y. 10013).

**Performance** Superb

**Recording** Sumptuous

Marc-Antoine Charpentier’s Midnight Mass is a veritable anthology of popular French Christmas carols artfully arranged for chorus, soloists, and various chamber ensembles. It is, nonetheless, a setting of the Latin Mass, and the careful choice of carols reflects the inner meaning of the text. In this newly imported (but not new) Erato recording the choral sound is rich and full without sacrificing the linear detail of the contrapuntal sections. The ornamentation is especially effective. It is rare that one hears a chorus perform measured trills and appoggiaturas so neatly and elegantly. The soloists are strong, with excellent ensemble, and the various instrumental trio-sonata combinations bring colorful contrast to the many textures found in this delightful work.

Much of the music of the late seventeenth century consists of short, contrasting sections that are difficult to hold together. Conductor Louis Martin has solved this problem beautifully; one section flows smoothly into another with no embarrassing gaps or awkward transitions. This is one of the most convincing recordings that you will ever hear on discs of this beautiful but difficult French religious music.

**FALLA: Serenata Andaluza; Nocturno; Vals Fantastique.** Claudio Arrau (piano).

**Performance** Grand

**Recording** Fine

Chopin’s Ballades that offer more pleasure than his new one: the playing is everywhere elegant, at once majestic and poetic, subtle and expressive. Each of these pieces— including the great Fantaisie—is exquisitely proportioned, and each simply takes us just where we want to go. If Arrau’s concepts are not strikingly original, he nevertheless offers the freshness of discovery because his playing is so alive and charged with spontaneity. This is the “grand manner” in the grandest sense, and the sound is fine enough to give the disc a slight edge over its two most distinguished predecessors, Rubinstein’s (RCA LSC 2370) and Ashkenazy’s (London CS 6422).

Ludwig Ohmannsky is also an elegant and poetic Chopin player. He does beautiful things with the Ballades, but on a somewhat more subdued level. It is not that he lacks power, but that he favors a more dreamy approach, stressing the music’s intimacy rather than its grandeur, and there are great expressiveness and conviction within that eminently supportable context. The particular mazurka and nocturne selected as fillers are especially well suited to his approach, and the sound of the Monitor disc is very good, too; a copy with quieter surfaces than those on my review disc would be a genuine bargain. The price may also encourage those who love the Ballades enough to enjoy contrasting interpretations to buy Ohmannsky’s to alternating with Arrau’s, Rubinstein’s, or Ashkenazy’s. R.F.

**DAVID: Macht Hoch die Tür; Komm, Heiliger Geist; Chaconne and Fugue; Prelude and Fugue in G Major; Es Sunten Drei Engel.** Graham Harmer (organ). YISTA VPS 1048 $7.98 (from HNH Distributors, Ltd., P.O. Box 222, Evanston, Ill. 60204).

**Performance** Impressive

**Recording** Striking

Judging from the name Johann Nepomuk David, the titles of the pieces, and perhaps the first couple of bands of this album, you might imagine some late Baroque composer or, even more likely, some forgotten contemporary of Mendelssohn who slaved away at his organ keyboard deep in provincial Germany adhering to the great style of his forebears. Well, Johann Nepomuk David is indeed a provincial German-speaking organist, but from Austria, not Germany, and of the twentieth century, not the eighteenth or nineteenth. Although he was born in 1895, his early compositions are not the eighteenth or nineteenth. Although he was not Germany, and of the twentieth century, not the eighteenth or nineteenth. Although he was born in 1895, his early compositions are not the eighteenth or nineteenth. Although he was born in 1895, his early compositions are not the eighteenth or nineteenth. Although he was born in 1895, his early compositions are not the eighteenth or nineteenth. Although he was born in 1895, his early compositions are not the eighteenth or nineteenth. Although he was born in 1895, his early compositions are not the eighteenth or nineteenth. Although he was born in 1895, his early compositions are not the eighteenth or nineteenth. Although he was born in 1895, his early compositions are not the eighteenth or nineteenth. Although he was born in 1895, his early compositions are not the eighteenth or nineteenth. Although he was born in 1895, his early compositions are not the eighteenth or nineteenth. Although he was born in 1895, his early compositions are not the eighteenth or nineteenth. Although he was born in 1895, his early compositions are not the eighteenth or nineteenth. Although he was born in 1895, his early compositions are not the eighteenth or nineteenth. Although he was born in 1895, his early compositions are not the eighteenth or nineteenth. Although he was born in 1895, his early compositions are not the eighteenth or nineteenth. Although he was born in 1895, his early compositions are not the eighteenth or nineteenth. Although he was born in 1895, his early compositions are not the eighteenth or nineteenth. Although he was born in 1895, his early compositions are not the eighteenth or nineteenth. Although he was born in 1895, his early compositions are not the eighteenth or nineteenth. Although he was born in 1895, his early compositions are not the eighteenth or nineteenth. Although he was born in 1895, his early compositions are not the eighteenth or nineteenth. Although he was born in 1895, his early compositions are not the eighteenth or nineteenth. Although he was born in 1895, his early compositions are not the eighteenth or nineteenth. Although he was born in 1895, his early compositions are not the eighteenth or nineteenth. Although he was born in 1895, his early compositions are not the eighteenth or nineteenth. Although he was born in 1895, his early compositions are not the eighteenth or nineteenth. Although he was born in 1895, his early compositions are not the eighteenth or nineteenth. Although he was born in 1895, his early compositions are not the eighteenth or nineteenth. Although he was born in 1895, his early compositions are not the eighteenth or nineteenth. Although he was born in 1895, his early compositions are not the eighteenth or nineteenth. Although he was born in 1895, his early compositions are not the eighteenth or nineteenth. Although he was born in 1895, his early compositions are not the eighteenth or nineteenth. Although he was born in 1895, his early compositions are not the eighteenth or nineteenth. Although he was born in 1895, his early compositions are not the eighteenth or nineteenth. Although he was born in 1895, his early compositions are not the eighteenth or nineteenth. Although he was born in 1895, his early compositions are not the eighteenth or nineteen...
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Leinsdorf: Direct-to-disc Werner

Enthusiasts of direct-to-disc recording have a first-rate exhibit for their case in a new collection of Wagneriana from Sheffield. Musically, Erich Leinsdorf and the 109 players of the Los Angeles Philharmonic Orchestra traverse these familiar orchestral highlights like the super-pros they are. There are no interpretive surprises, though Leinsdorf does use the special concert ending Wagner wrote for the Tristan und Isolde Act I Prelude (as he also did in his 1968 Boston Symphony disc for RCA). The main interest of the Sheffield release resides in the direct-to-disc recording itself, in the sound quality produced through a process that permits no editing of the performances.

Unlike the Telarc direct-to-disc Cleveland Orchestra collection of popular favorites I reviewed in these pages last October, Sheffield's effort suffers from no thinning out of the dynamic range or bass response. This was proved to my satisfaction in a comparison of Leinsdorf's Ride of the Valkyries here with three earlier recordings of the piece tailored for the audiophile market: Paul Paray's 1954 Mercury mono disc (which I personally saw through from the original tape to the final pressing), the original Command pressing with William Steinberg conducting the Pittsburgh Symphony, and the Leopold Stokowski London Phase-4 issue. While I would have preferred a warmer acoustic ambiance, the sound obtained by Sheffield (in the relatively neutral acoustic of the MGM Studios in Culver City, California) is the acme of cleanliness. The recording shows its superiority in this regard not only in obvious sound spectacles such as Ride of the Valkyries and the Götterdämmerung Funeral Music (where the passage for the Wagner tubas is a special highlight), but even more in the quieter Forest Murmurs from Siegfried, in which I have never before heard the contrapuntal texture emerge with such crystalline clarity.

As befits the $14 price tag for the release, Sheffield has done a very fine job of coffee-table packaging, complete with full-color illustrated brochure and ample annotation. Unfortunately, no technical details about the recording equipment, microphone setup, etc. are included. The clarity of the sound suggests to me that what was used was the bare minimum setup necessary to produce the requisite stereo localization and depth perspective while at the same time avoiding any unnecessary acoustic phase distortion. Given the promising potential of digital technology in audio applications, I'm not ready to go whole-hog for the "high-wire act" (in terms of both performance and budgeting) of direct-to-disc recording. But I would certainly rate this Sheffield disc as among the very best in the d-t-d sweeps.

-David Hall


Alicia de Larrocha, the late Gonzalo Sorián, and others have given us the 1908 Piezas Españolas and the masterly Fantasia Bética of 1919, but the shorter pieces here will surely be new to most listeners, and at least one of them, the 1922 arrangement of the Song of the Volga Boatmen, seems not to have been recorded before. (It was a curious piece for Falla to choose, but perhaps it was an extension of his interest in the folk music of his own country: his arrangement followed Stravinsky's orchestral one by five years and came out at the same time as Ravel's orchestral version of a Russian piano work, Mousorgsky's Pictures at an Exhibition.)

The Nocturno, Serenata Andaluza, Canción, and Vals Capricho are the earliest of Falla's piano works, charming salon music composed in 1899 and 1900. They show the influence of Chopin and to a lesser degree that of Liszt, but Falla's individuality is never in question. The Hommage, which Falla subse-

(Continued on page 94)
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Why?

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D3 fluid contains a complex blend of buffered surfactants conjugated in the labs of Discwasher, Inc. These provide cleaning “activity” against real-world record contamination, like fingerprints and airborne oils. But not against artificial “test conditions” of mineral oils and sheep wax (lanolin). Because if D3 removed waxes and oils of this nature, then D3 would also begin to soften critical vinyl stabilizers which are essential for record survival under the incredible heat and pressure of a tracking audio stylus. Alcohols and many cleaners pull stabilizers and age vinyl.

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JULY 1978
ideal in the more amiable E-flat, but in repeated hearings the persuasiveness of both performances only deepens. The E-flat is by no means devitalized, though the slow movement is spun out about as leisurely as it can be without losing its momentum. Rather, it takes on—oh, one might say, reveals—a sort of autumnal warmth and glow; it is a deeper and more compelling work, after all, than one might gather from the merely chipper frame in which its outer movements are sometimes presented. The playing throughout both sides is extremely beautiful (the violinist). Arnold Steinhardt is the absent member of the quartet) and superbly integrated—at once expressive and elegant, making all of Mozart's points with clarity, straightforwardness, and the exalted give-and-take that is the life's breath of real chamber music. The recorded sound, too, is exceptional for its richness, balance, and clarity, enabling us to savor every little Mozartian afterthought without artificial spotlighting. R.F.

RECORDING OF SPECIAL MERIT

MOZART: Violin Concerto No. 3, in G Major (K. 216); Concerto in C Major for Two Violins and Orchestra (K. 190), Gidon Kremer (violin); Tatiana Grindenko (violin in K. 190); Vienna Symphony Orchestra, Gidon Kremer cond. VANGUARD VSD-71277 $7.98.

Performance: Excellent
Recording: Very good

Gidon Kremer's recording of the Brahms Violin Concerto with Karajan (Angel □ S-37226) aroused interest and admiration even on the part of those who may not have been entirely persuaded by the performance. The Mozart on this new Vanguard disc derived from the German Aridla catalog is more convincing, I think, mainly because it is more unified, with Kremer as effective in conducting as in his solo playing. The approach is certainly romantic, yet never at odds with the nature of the material; Kremer's tone is very pure and very sweet in the G Major (surely the "sweetest" of Mozart's three big violin concertos), and his involvement in both works is apparent in the most ingratiating sense. In the Concerto his position as conductor is emphasized in a way by his yielding the first-solo honors to Tatiana Grindenko, who shows herself fully worthy of the position. Here, too, one has the gratifying impression that the two soloists have developed a joint interpretation over a period of time and have not simply met in the recording studio and gone to work. R.F.

RECORDING OF SPECIAL MERIT


Performance: Impassioned
Recording: Crisp and clean

None of Nielsen's string quartets has been available on records in this country since Turnabout deleted its fine Fona recordings of all four by the Copenhagen String Quartet a few years ago. This unexpected release of the first and last works in the cycle, therefore, is assured a warm welcome and, as it turns out, entirely merits it. The liner information advises that the ensemble named for the composer was founded in 1961, has devoted itself especially to the performance of Nielsen's music, and performs at his birthday on his death anniversary. The performances recorded here are assured, impassioned, and surprisingly coherent. Dynamic contrasts are generally more pronounced than they were in the earlier recordings, and there is no inclination anywhere to round off any of Nielsen's sharper corners. The startling impact and freshness might be likened to what the Prague String Quartet achieved in its recording of Dvorák's Op. 44/3. This recording is evidently not one of DG's own, threatens now and then to become a little fiery at the top, but in general it is crisp and clean. The annotation is concise and generalized rather than comprehensive in the manner of John W. Barker's notes for Turnabout. No one fortunate enough to own the older discs need suspect them of any inadequacy (they included, after all, four additional works by Nielsen, Gade, and Holmboe as well as the full quartet cycle), but anyone who missed them should acquire this splendid release and begin enjoying it at once. R.F.


Performance: Outstanding
Recording: Very good

Julius Baker, long the first flutist of the New York Philharmonic, is one of the finest exponents of the instrument around. It has been a while since he has made any new recordings, so this disc is welcome even if the contents are a bit light. The Poulenc sonata actually sounds like a heavyweight in this company! The Dutilleux is piddling post-Debussyism, and the Reiner can only be described as warmed-over Schumann. The elegance and musicality of the playing almost make up for what is lacking in the music itself. E.S.

POWELL: Rhapsodie Négre (see CARPENTER)


Performance: Classical
Recording: Very good

There are at least three sides to Ravel and in many ways to play him: Ravel the impressionist with his sensuous array of colorful fantasia; Ravel the sophisticate with his contemporary wit and bite; and Ravel the neo-Classicist with his careful and brilliant attention to tonal architecture. It is the last that Emanuel Ax favors; his is a Ravel of great virtuosity and a varied palette but, in the end, a rather sober and, classical composer very much in the French neo-Classical tradition. Nowhere is this brought out more clearly than in the Mother Goose music. The four-hand original is handled by Ax and his wife, Yoko Nozaki, as if it were porcelain of the greatest delicacy and fragility. But Ax pulls even the monumental Gaspard de la Nuit—as picturesque, sensuous, and witty a score as Ravel ever wrote—closer to the Central European tradition of clarity, balance, and...
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measure than it usually seems to be. I found these performances brilliant enough, but perhaps a little too brittle. 

E.S.

REINECKE: Flute Sonata, Op. 167 (see POU- LENC)

RECORDING OF SPECIAL MERIT


Arthur Grumiaux (violin); Paul Crossley (piano). PHILIPS 9500 394 $8.98.

Performance: Warmhearted

Recording: Very good

This is Grumiaux’s third disc of these endearing works. His 1973 recording, with Robert Veyron-Lacroix (Philips 6500 341), is still listed in Schwann, and no one who has a copy is likely to be unhappy with it. This new package, though, strikes me as his best yet, with just that much more flexibility and charm in the phrasing of some of the broad melodies. Both Grumiaux and his young English associate respond to the music’s essentially simple, songful nature with the warmest of hearts as well as the surest of fingers, at no point threatening to overwhelm it with virtuosity or smother it in an excess of affectation. Those who regard Johann Martzy’s lovely old Angel mono discs with pianist Jean Antonietti as the standard for recordings of these works may feel the final movement of the D Major Sonatina is a bit faster than ideal on the new disc, and that Crossley is too self-effacing at a few points, but in general the letter and the spirit are at least a little better served throughout both beautifully recorded sides than in any previous presentation of the four works together. Now, before Grumiaux records this package yet again, perhaps he could at last have a go at the later Fantasy in C and the Rondeau Brillant.

R.F.

RECORDING OF SPECIAL MERIT


Performance: Poised and polished

Recording: Excellent

The “New” in the name of the ensemble here emphasizes that this is not a reissue of the stereo remake of this work by the “old” Vienna Octet issued some twenty years ago: this version is in fact brand-new—there is not even a single holdover among the personnel. If the performance is somewhat less gemütlich than the earlier ones by the Vienna Octet, it is superbly poised and polished, and the recording is sensationally well balanced. No one who has been enjoying the Melos Ensemble’s recording of this work (Angel S-36529) for the last nine or ten years need feel its value has lessened, but I do not think there is a more satisfying version than this new one currently available at any price, and London’s generosity in releasing so beautiful a production on its budget STS label can hardly go unappreciated.

R.F.

SCHUMANN: Fantasia in C Major, Op. 17 (see LISZT)

SCHUMANN: Sonatas for Violin and Piano, Opp. 105 and 121 (see BEETHOVEN)

William Sidney Mount was a strange, compulsive nineteenth-century painter of portraits, country genre pieces, and landscapes who was obsessed by many other things besides. In 1824 he wrote the book for a New York musical, The Saw Mill, or A Yankee Trick. He got hung up on small seagoing craft and actually built a boat, which he named Pond Lily. He built himself a portable studio, too, drawn by horses, and experimented with pigments and solvents. He also played the violin all his adult life and collected great mounds of fiddle music, which he performed on a special instrument he invented called the “Cradle of Harmony,” a violin with a convex surface facing the strings to deepen the sound.

Mount spent most of his time in the vicinity of Stony Brook, Long Island, and once wrote a quirky little piece called In the Cars on the Long Island Railroad. That is one of the items on a new Folkways record of Mount’s music, which is dashingly played by violinist Gilbert Ross on an instrument built by a nephew of Mount’s. (The fiddle was restored to playing condition, after a hundred years of disuse, by a Mr. Rossi in the Long Island village of Hempstead.) Also on the album are dozens of short, peculiar little works from Mount’s collection—hornpipes, Scottish folk tunes, a Southern polka named for John Brown (before he converted to the Union cause in the Civil War), arrangements of early versions of Stephen Foster songs, waltzes, strathspeys, cotillions, and a nervous, lively little tune called I’ll Meet the Maid on the Moonlit River. Almost as fascinating as the music are Alfred Frankenstein’s album notes on Mount’s life, his inventions, and the manuscripts he collected.

—Paul Kresh

William Sidney Mount: The Cradle of Harmony; Whittier’s Hornpipe; ’Tis the Last Rose of Summer; Waltz; Merry Girls of New York; Black Hair’d Laddie; Stony Brook Moonshine; Yankee Hornpipe; Birds of Inver- noy; Brown Polka; In the Cars on the Long Island Railroad; Col. Thornton’s Strathspey; Rosa Waltz; Cotillion in the Key of C, No. 2; I’ll Meet the Maid on the Moonlit River; Old Susanna. Don’t You Cry for Me; Motion of the Boat; Gentle Annie; Waltz, the Cachucha; Pittsburgh Hornpipe; Braces of Tallymen; Fashionable Schottisch; Fancy Dance; Miss Eleanor Robertson’s Favorite; Possum Hunt; Middletown Hornpipe; Shawn Tushan Willi- chan; Jordon Jig; Cotillion in the Key of C, No. 4; The Braces of Athol; Bloomington’s Waltz; Lord St. Vincent’s Hornpipe; High- land Watch; Uncle Ben’s Favorite; Nancy Till; First Sett, No. 1. Gilbert Ross (violin). FOLKWAYS FTC 32739 $7.98.
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Trinity Boys Choir; English Bach Festival Chorus; members of the English Bach Festival Orchestra. Leonard Bernstein cond.

DEUTSCHE GRAMMOPHON 2530 880 $8.98, © 3300 880 $8.98.

Performance: Energetic
Recording: Striking

Germans in England recording Leonard Bernstein conducting English choirs in Stravinsky! Well, why not? Leonard Bernstein is, of course, an old Stravinsky man—although a Stravinsky man of a particular bent. Whereas Boulez, like Stravinsky himself, favors a lean and dry approach, Lennie's Stravinsky is anything but. His Les Noces is so breathtaking, so full of constant and unrelenting energy, that it is totally exhausting—and therefore, I think, not quite a success. This wonderful, neoprimitive, surrealist evocation of the Russian peasantry in music is certainly an unrelenting, exhausting piece, but perhaps that is the very reason why so much emphasis is not always needed.

The Mass is something else. This curious work, written on the threshold of the composer's last and driest period, is also an ultrasimple piece of energy, art, and genius. It is Stravinsky's tribute to religious faith and the traditions of ancient Western culture—just as Les Noces pays tribute to ancient Russian traditions. It was a brilliant stroke by Bernstein to bring out this relationship by pairing the two apparently different works, and he makes a wonderfully persuasive case for the one usually thought of as forbidding.

An important feature of the recording is the use of English singers. A boys' choir is exactly what the composer ordered, and the English wind and percussion players are marvelous. I can't speak for the quality of the singers' Russian in Les Noces, but their spirit never flags.

F.S.


Performance: Flamboyant
Recording: Fascinating


Performance: Refined
Recording: Richly textured

The number of currently available recordings of The Rite of Spring has now passed two dozen. Interpretively, the touchstone for me is Stravinsky's own 1960 recording, and in evaluating new disc versions the main task is to judge whether they represent an advance in sound quality while remaining basically faithful to the score as the composer conceived it. Both the present releases offer acceptable, though very different, readings and have quite sophisticated sound quality, but neither, I think, at all surpasses—if they even equal—what Solti, Abbado, Boulez (with the Cleveland Orchestra), and Stravinsky have previously given us.

Except for an excessively deliberate pacing of the "Spring Round Dance," Zubin Mehta stays within permissible interpretive bounds while extracting every bit of coloristic potential in the episodes where the rhythm is not

(Continued on page 102)
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CIRCLE NO. 51 ON READER SERVICE CARD
The flute, in one form or another, is one of the oldest instruments in the world, but it seems to be achieving a whole new popularity today. Great gobs of the musical literature are getting transcribed for the flute these days, with such masters of the instrument as Jean-Pierre Rampal turning out record after record of flute music from all parts of the globe. No question about it, on discs if not yet in the concert hall, this is the Year of the Flute.

Three new records by flute virtuosos have just made their appearance, with programs of varying degrees of fascination. The most intriguing of these is contributed by M. Rampal of these is contributed by M. Rampal. Particularly charming are a folk song that used to be sung by Japanese "cowboys" as they led their cattle to market in a feudal castle town and a tune drawn from a ballet about the feelings of a mother as her daughter leaves her to become a bride. In Sakura Sakura, a kind of hymn of welcome to spring, Rampal supplies an obbligato in tones—and even quarter-tones—quite close to the sounds produced by a Japanese flutist on a traditional instrument, while Laskine simulates on her harp the sound of the koto. They may not be exactly authentic, but these Western approximations are certainly ingratiating, and there is enough variety to hold the listener's attention throughout a long but lovely program.

Ransom Wilson is a younger man and a protégé of Rampal's who has already been hailed in the pages of the New York Times as a "bravura flutist" and has played in countless concert halls both here and abroad. Rampal discovered this Alabama-born musician's potential at the Juilliard School in New York, where Wilson was studying on a scholarship. Wilson says that his mentor made him learn French because "the language to speak for the flute is French." His record, "Impressions for Flute," a collaboration with harpist Nancy Allen and the members of a skilled string orchestra, draws largely on the works of early-modern French composers. The felicitous arrangements, all by Wilson himself, are of familiar and unfamiliar short pieces by Ravel, Damase, Caline, Fauré, Satie, and Poulenc—with a Roumanian folk dance by Bartók and a lullaby from Falla's Siete Canciones Populares Españolas thrown in for non-French seasoning. It is remarkable how well the treatment works in a Scottish song harmonized by Ravel, the segment from Faure's Dolly known as Dolly's Garden, a steamy dance by Caline, and other rarely recorded, piquant items, including Honegger's Danse de la Chèvre, the only work here written originally for flute. A total delight.

JAMES GALWAY, another great master of the flute, has not shown the same confidence in his potential audience's appetite for novelty on his latest record. On the contrary, the program in "The Magic Flute of James Galway" is composed mainly of overfamiliar concert standards densely arranged for symphony orchestra by Charles Gerhardt, who backs Galway with the full resources of the National Philharmonic. This is one of those instances where the arranger seeks in vain to improve on perfection—as in Gerhardt's concertino-like resoring of the scherzo from Mendelssohn's music for A Midsummer Night's Dream so as to feature the solo flute. This is likely going of an especially gratuitous variety. Galway, who seems to be able to run through the fastest passages of music without ever having to stop to breathe, is dazzling to hear in the less well-known selections, but as the program heads into hackneyed territory with a sentimental Fritz Kreisler tune, Dvořák's huge dance by Bartók and a lullaby from Falla's Siete Canciones Populares Españolas, it makes for duller listening. Galway would be well advised to join his flute-tooting colleagues in exploring more adventurous musical realms. —Paul Kresh


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predominant. Colin Davis takes a more conservative approach, and his rhythms have a less cutting edge to them—though the respective recording techniques may be in part responsible for that. Colin's engineers chose to work for a widespread, semisurrond ambiance (as heard in four-channel playback) with a very flat perspective; this makes all the different musical strands audible, but at almost the same apparent distance. Philips, in contrast, took advantage of the special configuration of the Amsterdam Concertgebouw to capture Davis' performance in a very deep perspective, even at the expense of losing a few details. What is actually heard on the Davis recording, therefore, represents his own conductor's emphases much more than is the case with Mehta's. And it is clear to me that Davis is more fascinated with Stravinsky's line-and-color polyphony than the famous driving rhythms, which he controls adequately but chooses not to stress.

All in all, I think that the Davis recording is closer to a concert-hall experience of the work. The Mehta version suggests something like a studio-oriented, rock-musician's approach. But both are musically valid performances, and they provide some provocative material for a debate on "natural" vs. "creative" recording and producing.

D.H.

TCHAIKOVSKY: Pique Dame. Peter Gougaloff (tenor), Hermann; Galina Vishnevskaya (soprano), Lisa; Regina Resnik (mezzo-soprano), Countess; Bernd Weikl (baritone). Prince Yeletsky; Dan Iord'achescu (baritone). Tomsky; Hanna Schwarz (mezzo-soprano), Pauline; Ewa Dobrowska (mezzo-soprano), Governess; Dimiter Petkov (bass), Surin; Lucia Popp (soprano), Chloe. Orchestra National de France and Choeur Mstislav Rostropovich cond. DEUTSCHE GRAMMOPHON 2711 019 four discs $35.92.

Performance: Fair
Recording: Good

Tchaikovsky's fascinating opera gets far less than its due in this performance, but a number of positive contributions must be noted. Rostropovich brings passionate devotion to the score, savoring its soaring melodies and grand climaxes without the elements of occasional overindulgence he exhibited in his recording of Eugene Onegin some years ago (Melodiya/ Angel 4115). There are a few questionable details (neither the first-act Quintet nor the score, savoring its soaring melodies and grand climaxes without the elements of occasional overindulgence he exhibited in his recording of Eugene Onegin some years ago (Melodiya/Angel 4115). There are a few questionable details (neither the first-act Quintet nor the score, savoring its soaring melodies and grand climaxes without the elements of occasional overindulgence he exhibited in his recording of Eugene Onegin some years ago (Melodiya/Angel 4115). There are a few questionable details (neither the first-act Quintet nor). There are a few questionable details (neither the first-act Quintet nor).
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Reg. Rate: 12 Issues/$12
Lowest Available Sub Rate: 32 Issues/$25
ATLANTA RHYTHM SECTION: Champagne Jam. Atlanta Rhythm Section (vocals and instrumetals). Large Time; I'm Not Gonna Let It Bother Me Tonight; Normal Love; Chamapgne Jam; Imaginary Lover; and three others. POLYDOR PD-1-6134 $6.98, © 8T1-6134 $7.98, © CTI-6134 $7.98.

Performance: Good, but . . .
Recording: Very good

There's such a thing as smoothing out too many of the rough spots, as this album by a group of veteran studio musicians demonstrates. All the members of Atlanta Rhythm Section are highly skilled, but skill by itself goes only so far in providing excitement or entertainment. Guitarist J. R. Cobb and Buddy Buie (who now acts as record producer for the band) wrote several quality ballads for the band. Dy Buie (who now acts as record producer for the band) wrote several quality ballads for the band. Dy Buie (who now acts as record producer for the band) wrote several quality ballads for the band.

Perhaps the best of these is "Psychedelic Love," and the band also takes a strong effort at "Memories." It's a legitimate problem-having skill by itself. While the Average White Band has ironically become a hit in the United States, it's an intriguing problem.-J. V.

AVERAGE WHITE BAND: Warmer Communications. Average White Band (vocals and instrumentals). Your Love Is a Miracle; Same Feeling, Different Song; Daddy's All Gone; Big City Lights; She's a Dream; and four others. ATLANTIC SD 19162 $7.98, © TP 19162 $7.97, © CS 19162 $7.97.

Performance: Good
Recording: Very good

Maybe I have become more mellow since I stopped eating thistles and drinking gasoline. Once I had no use for the Average White Band, but they sound pretty good to me now. Their style derives from what black r-&-b bands were generally playing ten years ago, and, since so many black outfits these days play hi-falutin' outer-space music or mechanical disco, the Average White Band has ironically become one of the few groups playing what has heretofore been understood as a "black music." While their material is the standard oh-baby-thing ambles on and takes up with the listener thoroughly convinced that it really is. Memory Lane never had it so good.

P.K.

DICKEY BETTS: Atlanta's Burning Down. Dickey Betts (vocals, guitar); instrumental accompaniment. Dealin' with the Devil; Shady Streets; You Can Have Her; Mr. Blues Man; and four others. ARISTA AB 4168 $7.98.

Performance: Lackluster
Recording: Clear

Dickey Betts mostly phoned this one in. I'm sorry to say; all in all, "Atlanta's Burning Down" is a singularly uninspired recording. The runs are reheashed, the moods are re-creations — and those are only the guitar parts, as for the vocals, tend to be mannered. Still, they're better than most of this material. The title song is a good one, but they've overarranged it. It makes a good start with acoustic guitars playing rhythm behind some nice, Spartan electric figures by Betts, but then the thing ambles on and takes up with strings, and suddenly there's not much going on any more. And so it goes. I'd say this is a between-albums album.

N.C.

SHIRLEY BASSEY: Yesterday. Shirley Bassey (vocals); instrumental accompaniment. My Melancholy Baby; I'm in the Mood for Love; I've Got You Under My Skin; Time After Time; Don't Get Around Much Any More; There I've Said It Again; and six others. UNITED ARTISTS UA-LA847-H $7.98.

Performance: The past recaptured
Recording: Excellent

"Yesterday" is a trip to the past down plush-lined corridors of time with Shirley Bassey — and if you've got to go backward what better company could you choose for the journey? Slow and dreamy, backed by what sounds like a batch of several hundred strings, and gently breathing life into numbers that the doctors of musical fashion have long since pronounced dead. Shirley Bassey is consistently alluring. She even has the nerve to tackle Over the Rainbow with her dark, mellifluous voice, and her way with it almost (but never quite) obliterates the memory of Judy Garland performing her special trademark item. Bassey concludes her concert with Love Is Here to Stay, leaving the listener thoroughly convinced that it really is. Memory Lane never had it so good.

P.K.

ALLAN CLARKE: I Wasn't Born Yesterday. Allan Clarke (vocals); other musicians. I Wasn't Born Yesterday; Hope; New Blood; I'm Betting My Life on You: The Man Who Manufactures Daydreams; and five others. ATLANTIC SD 19175 $7.98, © TP 19175 $7.97, © CS 19175 $7.97.

Performance: Disappointing
Recording: Slick

The Hollies, for whom Allan Clarke was the on-again, off-again lead singer, were in it only for the charts, so it should come as no surprise to find Clarke's latest solo effort dominated by the kind of formulaic, Hollywood MOR that gladdens the hearts of housewives.

N.C.
and radio programmers everywhere. But Power Poppers with long memories would be ill-advised to yell "Sell-out!" simply because nowhere on this album does anything approach the sound of the Hollies' mid-Sixties hits. If you're looking for the same interpolative tactics this is actually a very pleasant record. If I can't remember any of it after several hearings—not even I Will Be Your Shade in the Street, which as of this writing looks like it will be a Top Ten single—so what? If we must have this kind of beauty-parlor mush, I'd rather have it dished out by someone whose credentials are more legitimate than by someone with Barry Manilow's. What the hell, at least he does his own background vocals.

**RECORDING OF SPECIAL MERIT**

**ELVIS COSTELLO: This Year's Model.** Elvis Costello (vocals, guitar); other musicians. No Action; This Year's Girl; The Beat; Pump It Up; Little Triggers; Hand in Hand; Lip Service; and four others. Columbia JC 35331 $7.98, JC 35331 $7.98, JCT 35331 $7.98.

**Performance:** Bright and canny  
**Recording:** Very good

Elvis Costello looks like a nerd, but he doesn't sound like one at all. He sounds sort of like Bruce Springsteen, actually. But the main thing about "This Year's Model," his second Columbia album, is how bright and within the whole band sounds as it plays the snappiest, most intelligent rock arrangements since the heyday of Steeleye Span. (Although unidentified on the album jacket, the band here is the Attractions, the same group that backed Costello on his first tour.) The songs don't seem all that impressive in themselves, but as the start of a process they apparently work pretty well. Costello's whole idea of a lyric continues to be that it is an assortment of put-downs, but, given that, he's better than some at stringing words together. It's what he does with the beat, though, that I find so fascinating here. The sound is primitive and sophisticated at the same time, and even if you identify with the people Costello whines at in the lyrics, you can't help getting caught up in the rhythms. It will be interesting to see what kind of audience he attracts.

**N.C.**

**ENGLAND DAN AND JOHN FORD COLEY: Some Things Don't Come Easy.** England Dan (vocals, guitar); John Ford Coley (vocals, guitar); vocal and instrumental accompaniment. Some Things Don't Come Easy; You Can't Dance; We'll Never Have to Say Goodbye Again; Lovin' Somebody on a Rainy Night; Hold Me; and six others. Big Tree BJ 76006 $7.98, TP 76006 $7.97, CS 76006 $7.97.

**Performance:** Fair  
**Recording:** Good

I have little patience with commercial-hit pop ditties of the type that AM radio DJ's so endearingly dig at us. The songs usually have catchy titles—which are repeated every ten seconds in the lyrics so that no one misses the point—and musically they're like paper napkins: use once and throw away. It takes a certain skill to write, produce, and perform such songs, but even when they're well done they're still junk. England Dan (brother of Seals and Crofts' Jimmy Seals) and John Ford Coley are, let us say, journeymen of the genre. They sing in corset-tight harmony and write songs with hook monkeys like I'd Really Love to See You Tonight and It's Sad to Be Long (to someone else when the right one comes along), both from previous albums, and We'll Never Have to Say Goodbye Again. It's all sticky-sweet—as well it might be, since it's obviously designed to appeal to twelve-year-olds. As music, it barely qualifies. J.V.

**MICHAEL FRANKS: Burchfield Nines.** Michael Franks (vocals); instrumental accompaniment. When the Cookie Jar Is Empty; A Robinson; Wrestle a Live Nude Girl; In Search of the Perfect Shampoo; and four others. Warner Bros. BSK 3167 $7.98, M 3167 $7.97, M 3167 $7.97, CS 3167 $7.97.  
**Performance:** What songs!  
**Recording:** Excellent  

Michael Franks is one of the most brilliant, witty, and giddy songwriters to appear in many a year. His highly individual and persuasively cocky view of people and the world is based on the legitimate ground that the world and most of the people in it are slightly cuckoo. It would be a disservice to his work to quote mere parts of them, for they must be read or heard complete for a full appreciation of his vision and talent. But it would be difficult for any reasonably sophisticated person to listen to Wrestle a Live Nude Girl, in Search of the Perfect Shampoo, or When the Cookie Jar Is Empty without at least a put-downs, but, given that, he's better than some at stringing words together. It's what he does with the beat, though, that I find so fascinating here. The sound is primitive and sophisticated at the same time, and even if you identify with the people Costello whines at in the lyrics, you can't help getting caught up in the rhythms. It will be interesting to see what kind of audience he attracts.

**N.C.**

**CARLY SIMON: Boys in the Trees.** Carly Simon (vocals, guitar); instrumental accompaniment. Tranquillo; You're the One; In a Small Moment, a song about those little lies that can slip by, one by one, until they ruin your entire life: The Boys in the Trees, a remembrance of innocence and unawakened sexuality; and Tranquillo (Melt My Heart), a lullaby with a double meaning. And third, she's absolutely self-assured, both as a writer and as a performer. Everything on this album has been grafted onto the core of her performance personality.

When she tries, for instance, her own novelty calypso-reggae De Bat (Fly in Me Face), with the superb acoustic-guitar accompaniment of her husband, James Taylor, she does it with the ease of an actress playing a part that she knows her audiences will enjoy in. The same is true of her work in Taylor's One Man Woman ("living in a two-time town"), where she yelps and yowls like Tammy Wynette with her Lurex stole caught in the juke box. The hit here probably will be You Belong to Me, but who knows where the fickle finger of fortune will land on this album? Several tracks are worthy, and at least one will hit big—that seems a fairly sure bet.

Carly looks terrific on the cover, too, a lafing about in silky lingerie—great legs, not bad everything else. Her complete knowledge of herself and what she can do might be a bore in a less gifted writer and musician. As it stands now, however, she's fashioned a star vehicle here for herself that works on all levels, because, y' see, she really has the goods. And she does it better.

—Peter Reilly
DEAR PAUL:

Look, I've got a few things to get off my chest, but I know you'll forgive me. That's the kind of guy you are, after all—a sweetheart. In fact, you've got to be one of the nicest, most admirable people in the music biz, and in my heart of hearts I have no doubt that you're... well, sincere. You've made no bones about being a happily married father, which, given the prevailing mores of rock-and-roll, is about as good for business as announcing that you favor total annihilation of the sperm whale. You've refused to cash in on your past, striving long and successfully to maintain a working band with an identity quite apart from memories of the Fab Four. You've sold albums and singles by the zillion, mostly as an afterthought when ever you coined the phrase "brilliant fluff" must surely lions, most of them inconsequential (whoever...).

I'm not unsympathetic. I know you worked on "London Town" as hard as you always do; you're singing, if anything, better than ever, and you're still an incredible bassist and one of the more creative producers of our day. Also, you'll notice that not once have I made any snide remarks about the wisdom of letting your wife become a full-time creative partner. I hate having to write all this, really do. It's just that you used to matter, Paul, and it bugs me that—despite those creative successes—you're giving some kind of a portrait of that bastards don't understand you. I always assumed that Jerry Garcia was a major factor in that, what with his economical approach to the rock guitar and his general restraint. The Jerry Garcia Band is off to a restrained start, too, with just an instrumental suggestion here and there of the mystical side of Garcia expressed in a couple of recent, and largely boring, Dead albums. This time the lyrics, many by long-time Dead lyricist Robert Hunter, are so down-to-earth as to be banal—unless you're impressed by such stuff as "I love to hear that Rhapsody in Red/It just knocks me right outa my head"—and that makes for an album much more straightforward (in a left-handed sort of way) than I had expected. Garcia does, however, attend to the overall sound his band makes, and the arrangements do hint at an exotic sensibility that (in his case at least) one adult song, Rain, written and sung by Donna Godchaux. It's about those times when you actually want it to rain, and not just rain for a little while, but rain all night. It's a little underwritten but fascinating. Beyond that, the album works best as a variation on the pet-sounds idea, if you're old enough to remember that. Garcia and I are.

Hopefully yours,
Steve Simels

WINGS: London Town, Paul McCartney (vocals, bass, keyboards, guitar); Linda McCartney (vocals, keyboards); Denny Laine (vocals, guitars); Jimmy McCulloch (guitars); Joe English (drums). London Town; Café on the Left Bank; I'm Carrying; Backwards Traveler; Cuff Link; Children Children; Girlfriend; I've Had Enough; With a Little Luck; Famous Groupies; Deliver Your Children; Name and Address; Don't Let It Bring You Down; Morse Moose and the Grey Goose. CAPITOL SW-11777 $7.98, © 8XW-11777 $7.98, © 4XW-11777 $7.98.

JERRY GARCIA BAND: Cats Under the Stars. Jerry Garcia (vocals, guitar); Keith Godchaux (vocals, keyboards); Donna Godchaux (vocals); John Kahn (bass, keyboards, guitar); Ron Tutt (drums); Merl Saunders (organ). Rubin and Cherise; Love in the Afternoon; Palm Sunday; Cats Under the Stars; and three others. ARISTA AR 4160 $7.98.

Performance: Dry, but spacy
Recording: Very good

When the time was right, the Grateful Dead came along with an extracurricular image that seemed to endorse swinging the pendulum away from authority and toward anarchy. But there was a contradiction: on stage, the thing about the Dead was how under control its members were. I always assumed that Jerry Garcia was a major factor in that, what with his economical approach to the rock guitar and his general restraint. The Jerry Garcia Band is off to a restrained start, too, with just an instrumental suggestion here and there of the mystical side of Garcia expressed in a couple of recent, and largely boring, Dead albums. This time the lyrics, many by long-time Dead lyricist Robert Hunter, are so down-to-earth as to be banal—unless you're impressed by such stuff as "I love to hear that Rhapsody in Red/It just knocks me right outa my head"—and that makes for an album much more straightforward (in a left-handed sort of way) than I had expected. Garcia does, however, attend to the overall sound his band makes, and the arrangements do hint at an exotic sensibility that (in his case at least) one adult song, Rain, written and sung by Donna Godchaux. It's about those times when you actually want it to rain, and not just rain for a little while, but rain all night. It's a little underwritten but fascinating. Beyond that, the album works best as a variation on the pet-sounds idea, if you're old enough to remember that. Garcia and I are.

N.C.

GENESIS: . . . And Then There Were Three. Genesis (vocals and instrumentals). Down and Out; Undertow; Ballad of Big; Snowbound; Burning Rope; Many Too Many; and five others. ATLANTIC SD 19173 $7.98, © TP 19173 $7.98, © CS 19173 $7.98.

Performance: Good
Recording: Good

Genesis is beginning to look more like Exodus, the title of the out refers to how many members of the original quintet are left—drummer-vocalist Phil Collins. Tony Banks on keyboards, and Mike Rutherford on both guitar and bass. It doesn't sound at all that sparse, thanks to the overdub and the group's studio know-how. Genesis (with Peter Gabriel at the helm) started out trading on weirdness (Gothic division) as much as anything else.
While others are reaching for this technology, Sony brings it within your reach.

It takes a sharpened technical sense to deliver innovation at sensible prices.

Who else but Sony could manage it? We know turntables backwards and forwards. As far back as 1966, we were breaking ground: in that year, we applied a slow-speed, servo-controlled motor to turntables.

Today, we present the PS-X7, X6 and X5. Three fully automatic, direct drive turntables that are a direct challenge to the competition.

And the competition will soon find that we've got the features they don't want to face.

**The X-tal Lock.**

**X-act speed accuracy.**

A traditional servo system doesn't serve you well enough. It can heat up, creating speed drift.

More critically, increased friction between the stylus and record during loud passages can slow the speed into a range where a conventional servo isn't sensitive enough to read. But your conventional ears can.

Sony's X-tal Lock system cannot be accused of the above. A quartz generator perfectly regulates the servo, locking in speed electronically. It's impervious to temperature, load, or voltage changes.

**Our brushless and slot-less is matchless.**

Sony's new motor gives brushes the brush. The ring shaped permanent magnet rotor and fixed coil eliminate cogging. The torque is high. The rotation smooth. The start-up, quick.

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**Like millions of tiny State Troopers.**

The X-tal Lock system is worth x-actly nothing, unless the right information is relayed to it. Our system uses a precise magnetic pulse signal, recorded on the platter's outer rim.

An 8-pole magnetic pick-up head receives it. Then transmits it to the servo electronics.

Most systems use only one pole. By using 8—and averaging them—we get above average accuracy.

**Want functional controls?**

**The case is closed!**

Our dust cover lives down to its name. It remains closed, protecting record and machine, allowing immediate access to controls without lifting the cover. (On the X7 and X6, the controls are touch sensitive.)

Underneath the cover, you'll find a safety clutch mechanism to protect the tone arm, should it accidentally be grabbed while in motion.

And on the X7 and X6, an optical sensing system—to automatically return the arm at record's end. (In the X7, a carbon fiber tone arm.)

These turntables are even worth more dead, than alive. Because their cabinets are made from an acoustically dead material. They won't vibrate.

Vibration is also cut by our thick rubber mat, heavy aluminum platter and viscous filled rubber feet. (The X7's mat is filled with the same damping material).

Much has been engineered into these turntables that we haven't mentioned, including lightweight tone arms with a cast aluminum alloy headshell.

So tightly built are they that we didn't even have room for bigger prices.

Cartridges are not included.

CIRCLE NO. 46 ON READER SERVICE CARD
The Band's "Last Waltz"

The babies of the Baby Boom bulge in the population curve are well along toward having their own middle-age bulges, and American business, as always, is standing by; blue jeans that are fuller in the seat are already on the market. If that doesn't give you a turned-out-to-pasture feeling, you may be ready to face up to the Band's last-hurrah, end-of-an-era, goodbye-to-all-that album, "The Last Waltz," a live, three-disc extravaganza studded with guest stars including the once hard-to-get Bob Dylan. The sound you don't hear, but do feel, is that of an era shutting down. Well, by cracky, we ought to make an interesting change of pace from all those grandparental whose thing was how deep the snow used to get. Picture us settin' up... and rockin' (ironically enough) and telling the tykes what we did in our day—grew hair, took deep of the snow used to get. Picture us settin' up goodby to-all-that album, "The Last Waltz," a live, three-disc extravaganza studded with guest stars including the once hard-to-get Bob Dylan. The sound you don't hear, but do feel, is that of an era shutting down. Well, by cracky, we ought to make an interesting change of pace from all those grandparental whose thing was how deep the snow used to get. Picture us settin' up... and rockin' (ironically enough) and telling the tykes what we did in our day—grew hair, took deep of the snow used to get. Picture us settin' up...

Ah, yes, we'll tell the tads, the Band... well, the Band was kind of special. It had style, mystique. Anything introduced to us by Bob Dylan, we'll explain, had by definition a certain mystique, but in this case there was more to it. The Band came with a post-Feiffer sense of humor in a Southern accent couched in an old sound, an old collection of almost campy ways of doing things. People who hated hard rock loved the Band. People who hated everything but hard rock loved the Band. And "hate" and "love" must be taken literally to get a feel for late-Sixties passions, we'll explain to the children. The point is, the Band had a versatile audience and was pretty versatile itself. In this last fling, for example, recorded at a farewell concert/party last Thanksgiving, the Band backs Joni Mitchell one minute and Neil Diamond the next, and it does so with dexterity and intelligence. Yet the Band also maintained a most distinctive sound of its own, a way of putting space around each instrument, a kind of Angst hanging over the vocals, a combination of things that made That Sound an important part of what the Band was. Real people liked the Band almost as much as critics did.

"The Last Waltz" is one of those rock "event" albums, but unlike the recording of the Bangla Desh concert or that of the Woodstock Festival, it comes out at a time when people are not very excited about the prospects of finding art in progressive rock, a time when people no longer keep track of every individual musician's evolution through various groups—not to mention all sorts of information about his or her personal life. The times now are much more ho-hum about hype. It's hard to tell whether we're too cynical or too gullible to be offended. Maybe both. It could be that what's happening is that buying power is finally coming to a generation that has been stoned on television all its life. Anyway, it's all rather apolitical. We're somewhat inured to events of all kinds (we can always catch the TV reply of any we missed), and so you're going to like this album, I think, but without the kind of flipping out about it that would have gone on in 1969. You're going to be able to see, thanks to the objectivity that goes with being inured, that this milestone set to music is life-size.

On the one hand, some things are most impressive, starting with the quality and diversity of the guest stars who showed up to pay tribute. There are some powerful individual performances, such as those by the Band with Paul Butterfield, with Van Morrison, with Dylan, and with a veritable entourage in "I Shall Be Released." Much of the music that doesn't involve guest stars is first-rate, too, being a retrospective of some choice Band tunes over the years, edited by the boys themselves. It's heartening that they've obviously remained fond of such stuff as "The Weight" (done here with help), "Cripple Creek," "Ophelia," and "The Night They Drove Old Dixie Down," despite how many times they must have had to play these tunes.

But the thing is human, as I said. Neil Young is slightly off-key, Muddy Waters is boring because he chose to sing an extremely dull and silly song, and Eric Clapton and Dr. John hardly seem inspired. Dylan does a little cycle of snarling rockers, using Baby Let Me Follow You Down like bookends in an interesting example of Dylan distorting one aspect of himself, but it isn't until he's joined by Ringo Starr, Ronnie Wood, and others for I Shall Be Released that he seems for a moment to get outside himself. Human too is the slight quality of harshness or brittleness the sound has. It's a good job of recording live under what were probably difficult conditions, but you can sense a thin zone of equipment between yourself and the music.

But not between yourself and the sound of an era shutting down. Rock won't die, but it will go on changing form. New bands will come and old ones will go. Some of the new ones will be good. But once (you'll tell the grandchildren) there was a band so universally accepted that we simply called it the Band. It knew what we were thinking and played accordingly. Just stay unruffled when the tykes respond with, "Yeah, sure. Now tell us again about the one who played with snakes and cut off dolls' heads." Given time, they'll become Band fanciers too, a good percentage of them. This long last Waltz is also a momentous time, for the Band is preserved on records (and on film with Martin Scorsese's The Last Waltz). Regardless of what rockfad is cycling in from behind, I expect the world will rediscover the Band from time to time and marvel at the style with which some of us did things back in the Sixties and Seventies.

—Noel Coppage

New Plymouth Horizon. People are taking it everywhere. On any kind of road, in any kind of weather, on every kind of trip. Front-wheel drive is one reason why. It gives Horizon great stability and it gives you a great feeling of confidence.

And people are taking it because Horizon can take a lot of people. Four big adults can ride in comfort. And there's plenty of room to take all the things that people need.

Horizon gives you a lot of unexpected standard features, like front bucket seats, AM radio, whitewall radial tires, rack and pinion steering and front disc brakes. And at $3881, it’s easy to take.

WHEN YOU WANT TO GO ANYWHERE IN COMFORT AND CONFIDENCE.

RELAX. PLYMOUTH HORIZON CAN HANDLE IT.
but the group has gradually and steadily toned that down. They attempt still more unorthodox imagery in the lyrics than is normal in this day and age, but they also attempt to make the lyrics and tunes make sense together. It’s now a “sound” group, pegged to electric keyboards, with words you can fuss with when and if you have time. But no hurry. N.C.

STEVE HACKETT: Please Don’t Touch. Steve Hackett (vocals, keyboards, guitar, drums, computer); Richie Havens, Steve Walsh, Randy Crawford (vocals); other musicians. France; Carry On Up the Vicarage; Racing in A; Kim; Icarus Ascending; and five others. CHRYSLIS CHR 1176 $7.98, ® 8CH 1176 $7.98, ® CCH 1176 $7.98.

Performance: Go, Necam! Recording: Good

In addition to featuring Necam the computer, “Please Don’t Touch” features so much electronics manipulated by ex-Genesis member Steve Hackett that the credits include an “equipment list” under his name: Roland guitar synthesizer (complete with three six-string and two twelve-string electric guitars); pedal board comprising octave dividers, phasers, fuzz boxes, wah-wah volume pedal, and other stuff included in “etc.” mellotron; psaltery; bells; wind chimes; vocal tape loops; Roland space echo and jazz chorus; 150 amps and speakers... well, you get the idea. It’s a “fursthugger Sound Spectacular,” to borrow a phrase from the golden days of Mad magazine, and I must say it’s one of the most likely electronic albums since “Switched On Bach.” I like it partly because it’s an old favorite. Richie Havens, shows up on a couple of vocals to lend a touch of grace, and partly because Hackett has managed better than most to integrate electronic and “organic” sounds to come up with actually melodic runs, actual rhythms, and other tune-like snatches to feed through all this. The Voice of Necam is a little disappointing, and the title song (“For maximum effect,” it says on the jacket, “this track should be played as loudly as possible... not to be played to people with heart conditions or those in severely halved...” is how they’re written; they’re all played well, the band seeming as energetic as its old, great Airplane self. Grace is back to her old undisciplined, mind-bending vocal lines, but that’s one of the things I like about it. The question that’s going to nag at me, though, is why they went to all this trouble to deliver such a meager bill of goods. N.C.

GARLAND JEFFREYS: One-Eyed Jack. Garland Jeffreys (vocals); vocal and instrumental accompaniment. She Didn’t Lie; Keep On Trying; Redin; Haunted House; One-Eyed Jack; and five others. A&M SP-4681 $7.98, ® AAM 4681 $7.98. Performance: Less than expected Recording: Good

Garland Jeffreys has been hailed as an outstanding new pop talent, so I tried very hard to like “One-Eyed Jack.” But my determination waned through a series of listenings. Careful scrutiny of the lyrics of his songs merely underscored the banality of the sounds supporting them—trite little two-chord ditties projected in a thinly nasal singing voice devoid of any real musical quality. Even Pheobe Snow, in her guest spot as a background singer, could not lend enough oompah to get this show off the ground. Jeffreys has apparently attempted to fuse a quietly stated rock style with traces of reggae and old-fashioned rock-'n-roll, but this musical marriage is bound to inspire more yawns than Amens. P.G.

RECORDING OF SPECIAL MERIT

KRIŠ KRISTOFFERSON: Easter Island. Kriš Kristofferson (vocals, guitar); Jerry McGee (guitar); Sammy Creason (drums); Donnie Fritts (keyboards); other musicians. Risky (Continued on page 118)

The American Cartridge
THAT'S A STAR
ABROAD

When we introduced the Sonus Blue cartridge, we were amazed at the speed with which discriminating audiophiles responded to its astounding ability to improve the quality of record reproduction. And we must admit that we've gotten some pretty good reviews in America.

But what really surprised us were the enthusiastic reviews of European audiophile publications.

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Stereolab—Test (Germany): "...The Sonus showed up as very balanced and clean... compared to other outstanding cartridges, it stands up effortlessly!... Quality level: Without question top class.

We feel more strongly than ever before that the addition of a Sonus cartridge to any fine quality stereo system will result in noticeable sonic improvements. Write for copies of these reviews, further information, plus the name of your local Sonus dealer.

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STEREO REVIEW
The first cassette deck controlled by a microprocessor with no fewer than five memories—would be enough to dazzle anybody.

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It controls Sharp's exclusive Auto Program Locate Device. This unique feature skips ahead or back to any song you select (up to 19 songs) and plays it automatically.

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Zero Rewind™ allows you to set any point on the tape as the "beginning."

The computer also controls Electronic Tape Counting and Second Counting, so you always know how much tape or time you have left.

A Liquid Crystal Display shows you current mode and function.

The built-in digital quartz clock acts as a timing device; it displays timed-programming operations, so you can actually program your RT-3388 to record automatically from a radio or TV at any pre-selected time and then switch itself off.

But what really makes the RT-3388 so special is that the musical performance of the deck is every bit as dazzling as the electronic performance of the computer.

Just a few specs tell the story:

- S/N ratio: 64dB with Dolby.*
- Wow and flutter: a minimal 0.06%.
- Frequency response: 30-16,000 Hz (±3dB) for ±6Cr.

Without the computer, the RT-3388 would merely be one of the best engineered cassette decks you could find.

But now nice that you can have the deck with your own private computer to run it. (The RT-3388 is just one of a complete line of Sharp® cassette decks with the unique ability to find and play your music for you.)

When your Sharp dealer shows you the RT-3388, we suggest that you ask to hear some music first.

Then go ahead and let the computer dazzle you.

Sharp Electronics Corp.
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SHARP'S RT-3388.
THE FIRST COMPUTER THAT PLAYS MUSIC.

CIRCLE NO. 95 ON READER SERVICE CARD
To recall the palmiest days of Goddard Lieber—Green's musical version of that ultimate Old Century, his (and Betty Comden's and Adolph galvanic new recording of On the Twentieth producer of original -cast albums.

Coleman's work as producer of Columbia's galvanic new recording of On the Twentieth Century, his (and Betty Comden's and Adolph Green's musical version of that ultimate Old Movie, Twentieth Century, is splendid enough to recall the palmiest days of Goddard Lieberman. It is a recording that shimmers with the time, taste, energy, expense, and wit that has been invested in it by everyone involved. It is a beauty, a doozer, a dilly.

The show Green and Coleman have provided Kahn in On the Twentieth Century—particularly Veronique and Babette, in which the former hash-singer goes over two proposed "prestige" scripts (essentially the same vehicle) and gives them her all, "carefully ignoring any lines but her own—is a glorious send-up of all our movie tragedy queens from Joan Crawford through Faye Dunaway. Coleman gives her music that is almost operatic, and Kahn performs way beyond the hilt, catching just that slightly over-careful pretentiousness that often afflicts light-opera singers. Much of Coleman's work here is, in fact, subtle parody. John Cullum (in the Barrymore role) sings his phony death knell, The Legacy, in the roundest Alfred Drakeian tones to music that sounds like mildewed Cole Porter, and his duet with Kahn, Lily, Oscar, is Victor Herbert with bells on.

Imogene Coca is on hand, too, as an evangelist who turns out to be more than a bit dot-ty. Her best number, and possibly the funniest song in the show, is Repent, in which she tells the audience how much she knows about "dirty doings in the back of Chevrolets" and what goes on when Junior locks the bathroom door. The stunningly recorded big production number, She's a Nut, involves the rest of the cast in a search through the train for the elusive Coca, whose wig, they think, has suffered its final flip. This is Coleman's most daring parody, and his most successful. He's taken the most solemn moments from that Limburgerish Sixties passion play, Jesus Christ, Superstar, and turned them into the loveliest Mickey Mouse traveling music since the pagon days of the Keystone Kops. As the chorus cries, "She's a nut, she's a nut, she's a religious nut," Coleman's sonorous pieties are above them like a huge, empty chord. How refreshing it is to hear the sentimental "religious" claptap of the Sixties put firmly in its cynical, commercial place.

The recording is nothing short of dazzling. From the sensational train effects in the overture to the claustrophobic feel of the spicy duet I've Got It All to the sound spectacular of She's a Nut, it more than stands on its own as entertainment. On the Twentieth Century is one of the delights of the year—for Comden and Green's sardonic book and lyrics, for the high-camp performance of Madeline Kahn and the droll one of John Cullum, for the fragile lunacy of Imogene Coca, and, most of all, for Cy Coleman's score. Totally unlike anything he's written before, it is both a light-hearted romp and a finger-snap at the kind of "serious" work that's damned near killed Broadway. As he himself has said of the "inspirational" final song, Life Is a Train, "There's your silly bit of philosophy. Now you can go home." It's probably the only song from this show that you won't feel like humming. —Peter Reilly

Single-play vs. Multi-play.

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With the computerized control panel on any Accutrac turntable you can play the tracks on a record in any order you like, as often as you like, even skip the tracks you don't like.

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Business: Forever in Your Love; The Sabre
and the Rose; Spooky Lady’s Revenge; Easter
Island; and five others. COLUMBIA JZ 35310
$7.98, BZA 35310 $7.98, BZT 35310 $7.98.

Performance: Solid
Recording: Very good

Kicking them when they’re up is an American
reflex action. I suppose; I think Kris Kristof-
ferson has been criticized more in recent
years for being commercially successful than
for anything else. His work has been uneven,
of course, but it’s always been that; he hasn’t
become the terrific singer, but then nobody
thought he would.

He has continued to try to write a song that
proves a little more than your average song
(especially your average song right now), and
he has gradually and gently evolved a rock sound and shed a
country one. “Easter Island” is a rock album with
considerable texture, words worth listening to
but not convoluted, a little more tune than
usual. Various of these musicians have played with Kristof-
ferson throughout; his career, and several
times in these instrumentals you can hear a
kind of shrewdness in anticipation. I especial-
ly like The Bigger the Fool (The Harder the
Fall) and the way that kind of shrewdness
doesn’t happen in the chorus. Don’t be misled by
these songs. I think people like Little
Feeat so much. The band is, when you think of it, a very rare
band that knows where the beat is. Various
of these musicians have played with Kristof-
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of these musicians have played with Kris...
Manfred Mann's classical training may account for his dissatisfaction with the vagaries of pop and his preference for complex, Gothic musical pieces. While one can sympathize with him, the fact remains that whenever he steps too far away from pop his band becomes indistinguishable from all the other space-rock groups with visions of High Art. On the rare occasion when he returns to pop, the results are thrilling. A case in point was his hit of last year, an arrangement of Bruce Springsteen's 'Blinded by the Light' that made it seem a better tune than it actually is. The same holds true for his decade-ago version of Dylan's 'The Mighty Quinn.'

Only one cut really moves on "Watch." Davy's 'on the Road Again,' which gets a no-nonsense delivery—in sharp contrast to the pretentious pretensions of such as Chicago Institute and Martha's Madman. There is a live version of 'The Mighty Quinn,' but it's way below the original—the lead vocalist gets the lyrics mixed up, and the band lurches and bumbles around in an improvisatory section that proves only that there isn't enough tune to Improvize on. Throughout the album the guitar work and the lead vocals tip over into wretched excess. It's a shame that Mann's music is generally so pretentious, since it is the simpler pop material that he handles best, often with exquisite good sense. J.V.

MARCUS GRANT: 'One World.' John Martyn (vocals, guitar); Stevie Winwood (organ); Danny Thompson (bass); other musicians. 'Couldn't Love You More; Certain Surprise; Dancing; Small Hours; and four others. Is a -era version of 'The Mighty Quinn'; Davy's on the Road Again; which gets a no-count for his dissatisfaction with the vagaries of pop and his preference for complex, Gothic musical pieces. While one can sympathize with him, the fact remains that whenever he steps too far away from pop his band becomes indistinguishable from all the other space-rock groups with visions of High Art. On the rare occasion when he returns to pop, the results are thrilling. A case in point was his hit of last year, an arrangement of Bruce Springsteen's 'Blinded by the Light' that made it seem a better tune than it actually is. The same holds true for his decade-ago version of Dylan's 'The Mighty Quinn.'

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MARIA MULDAUR: Southern Winds. Maria Muldaur (vocals); Scott Edwards (bass); Phil Muldaur (vocals, guitar); other musicians. I Got a Man; Here Is Where Your Man Belongs; That's the Way Love Is; My Sisters and Brothers; Cajun Moon; and five others. Is a -era version of 'The Mighty Quinn'; Davy's on the Road Again; which gets a no-count for his dissatisfaction with the vagaries of pop and his preference for complex, Gothic musical pieces. While one can sympathize with him, the fact remains that whenever he steps too far away from pop his band becomes indistinguishable from all the other space-rock groups with visions of High Art. On the rare occasion when he returns to pop, the results are thrilling. A case in point was his hit of last year, an arrangement of Bruce Springsteen's 'Blinded by the Light' that made it seem a better tune than it actually is. The same holds true for his decade-ago version of Dylan's 'The Mighty Quinn.'

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3600 Pre-Amp

make the Velvet's second album sound like Fleetwood Mac. But what it most recalls is Dylan's "Blood on the Tracks." Like that record, "Street Hassle" is both an acknowledgment of private pain and failure and an exhilarating artistic reawakening.

Lou parodies himself explicitly during Gimme Some Good Times, with a quote from his Sweet Jane and a tacit admission that his Rock-and-Roll Animal pose of the mid-Seventies was a fraud, and the rest of the songs spew out a scathing self-loathing. The album is a musical and psychological epic, a cathartic purging of all the jive from his act. He hasn't made it easy for us either. There are no slick sessionmen or MOR ballads here; it's the rawest, most metallic album he's done in years. Still, because the lyrics are so unexpectedly and nakedly confessional, the harshness and fury of the music (let us not forget that Lou, more than anyone else, laid the groundwork for the New Wave) become oddly touching. And it's nice to discover, after all these years, that Lou Reed is capable of viewing himself with the same unflinching honesty he's demonstrated in his little character portraits of the people around him. "Street Hassle" is a very brave album, a major comeback, and an overdue reminder that at least one of our Sixties heroes is not yet burned out.

Renaissance: A Song for All Seasons. "Renaissance" (vocals and instrumental); instrumental accompaniment. Opening Out; Closer than Yesterday; She Is Love; Northern Lights; and four others. SIRE SRK 6049 $6.98.

Performance: Enormously pleasing
Recording: First-rank
Renaissance continues to get an enormous amount and variety of pleasing sound onto its recordings. This newest is no exception, and David Hentschel's production is absolutely first-rank in all departments. "A Song for All Seasons" is another glossy and sonically beautiful album. Annie Haslam, who didn't fare too well in her recent solo outing, is back as lead vocalist; expertly integrated into the group sound, she is once more a consistently clear-voice joy. The songs, mostly by Jon Camp and Michael Dunford, are only a cut or two above the sort of thing that accompanies TV commercials of the prancing-through-the-meadow-with-dream-girl-in-slow-motion variety. But that isn't really a problem because Renaissance is, first and always, a mood-producing group. No need to check your bio-rhythms before listening to this one—it's guaranteed to relax you.

SMOKEY ROBINSON: Love Breeze. Smokey Robinson (vocals); vocal and instrumental accompaniment. Why You Wanna See My Bad Side; Love So Fine; Feeling You, Feeling Me; Madam X; and four others. TAML A T7-359R1 $7.98, ® 7-359HT $7.98, ® 7-359HC $7.98.

Performance: Disappointing
Recording: Good
Smokey Robinson has been called poet laureate of r&b, and he is a founding father of Motown, but his true forte is his ability to slither through his own songs with a high-pitched vocal grace that renders his love messages immediately inviting. This album fits easily into that pattern and is almost old-fashioned in the way it relies on tuneful but easily forgotten ditties. It is enjoyable, as Smokey always is, and the sweetness of tone and ensemble work adhere closely to classic r&b. The problem is that there are no outstanding moments. There is just a plateau of bland pleasantness, making it difficult to distinguish this record from those that have most recently preceded it. Furthermore, Robinson seems to have some intonation problems here which are exacerbated by a tendency on the part of his back-up group to sing flat. "Love Breeze" is somewhat less than we expect of a master.

RECORDING OF SPECIAL MERIT
ROOT BOY SLIM AND THE SEX CHANGE BAND. Root Boy Slim and the Rootettes (vocals); instrumental accompaniment. Boogie 'til You Puke; I'm Not Too Old for You; I...
Used to Be a Radical; Heartbreak of Psoriasis; I Want It Now; Mood Ring; Too Sick to Reggae; My Wig Fell Off; and four others.

WARNING BROS. BSK 3160 $7.98, ® MBS 3160 $7.97, ® MS 3160 $7.97.

Performance: Wild
Recording: Good

If just reading the titles of the songs on this spectacularly lunatic album doesn’t produce a hearty guffaw, playing a few tracks from it will. Though the band—a good, slugging outfit—plays everything straight and serious, Root Boy Slim’s rasping, half-spoken vocals are a journey into the sublime realms of the ridiculous. The more or less sung parts are sometimes followed by free-association monologues, which serve as digestifs for the inspired nonsense of the lyrics. Some highlights are My Wig Fell Off, about an older man trying to cut it with the young chicks on the disco circuit, Boogie ’Til You Puke, about every punk who ever made an ass of himself on Saturday night, and the hilarious Heartbreak of Psoriasis. And the group’s satire is self-directed as well, mocking the whole rock-'n'-roll star-trip scene. Root Boy Co.’s manipulation of their audiences (in Washington, D.C., where the act caught on, the audience learned to chant “Root! Root! Root!” before the group came out) is a dig at any audience that holds itself more important than the performers.

Rock performers rarely laugh at—or tell the truth about—their own star-trips, the rock ethos in general, or the cannibalistic audiences. Root Boy’s abusive, sleazy, zigzag pranks, simultaneously crude and astute, are reminiscent of Captain Beefheart. (It is interesting to compare this album with Beefheart’s first in 1965, “Safe as Milk,” which was considered at the time too outré to sell.) It is musical mayhem, but it’s right on target; to laugh along with Root Boy Slim is to banish from your life much of the jive that clutters it up. Bravo!

HELEN SCHNEIDER: Let It Be Now (see Best of the Month, page 81)

STARLAND VOCAL BAND: Late Nite Radio. Starland Vocal Band (vocals and instrumentals). Everyman; Akron; Fly Away; Write Your Life; Friends with You; The Man Who Couldn’t Get Away; and four others.

Wind - Song BXL1-2598 $6.98, ® BXS1-2598 $7.98, ® BXKI-2598 $7.98.

Performance: Routine
Recording: Good

Hard work, good intentions, and careful musicianship shimmer fitfully through the over-riding routine dullness of “Late Nite Radio.” Bill Danoff has written most of the songs here, often in collaboration with one of the other three members of the Starland Vocal Band, and they all fall into the category of upper-middle-class gospellese pop. Everyone works very hard and very sincerely, but the final effect has all the pizzazz of a tableau of “Work” or “Progress” or “Ghetto Life” presented on the summer lawn of a suburban house by a group of stage-struck neighborhood children.

P.R.

RINGO STARR: Bad Boy. Ringo Starr (vocals, drums); vocal and instrumental accompaniment. Who Needs a Heart; Bad Boy; Lipstick Traces; Heart on My Sleeve; Where Did Our Love Go; and five others.

PORTRAIT JR (Continued on page 128)

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Jacques Brel Has Been Recording In Paris

For a dozen years much of the world has believed that Jacques Brel was/is Alive and Well and Living in Paris. The revue bearing that title and made up of his songs has toured and returned this country and half a dozen others. It has been so successful as almost to obliterate the man himself. Indeed, in nearly every town I pass through where the revue is being staged, I always see the title shortened to merely “Jacques Brel.” The result is that over the years I’ve talked to countless Americans who are positive that they have just seen Jacques Brel perform at their local playhouse, auditorium, or dinner theater. But Brel, who was born in Belgium (despite the ridicule he heaps on the bourgeoisie of that country, he has a strong love for anything and everything Flemish), has in fact spent very little time living in Paris and even less traveling in America. He has appeared in only three cities in this country, giving exactly four performances.

Twelve years ago, after the resounding success of his adaptation of Dale Wasserman’s Man of La Mancha (in which he himself appeared as Don Quixote), Brel retired from all concert work. He used to tell me that before each performance he became physically ill, and when I toured with him for a while (we were in the midst of writing some songs together) I watched every night a kind of Jekyll and Hyde transformation take place: he would disappear nervously into the bathroom as concert time approached, and reappear (after having brought up his dinner) shortly thereafter, pale but composed, for his performance. I could never understand his nervousness over performing in public, for I consider him the most vibrant, intelligent, and intensely moving entertainer I’ve ever had the privilege of seeing.

After giving up concerts, Brel turned to films. He acted in a number of comedies with the notable success and even turned for a while to directing. Then, six years ago, he simply disappeared. No one could find him. But the French press, every bit as resourceful as the Italian, soon determined that Brel had cancer. Word leaked out that he had been admitted to a hospital in Brussels for a lung operation. Reporters immediately assumed that his illness was incurable and that the all-most legendary singer and songwriter had little time left.

It is well known that any lie repeated often enough becomes a kind of folklore fact, and the incurable-illness theory was further compounded by the fact that Brel took off on his boat to settle on a South Pacific island like a world-weary Gargantua. Even there the French press tracked him down, but they failed to reach him for an interview. Brel has always been suspicious of journalists; the number of interviews he has granted since he became a major star in the late Fifties is few, and they usually stick to one subject—his songs. Nonetheless, long dirges about a dying man glimpsed only now and then behind a wall, walking in a garden, or passing by an upstairs window began to appear in the press. (Because we had worked together so closely for so long, I used to average about a phone call a week from somebody inquiring as to his health or whereabouts. I naturally said nothing, though I knew his hideaway and our correspondence remained steady.)

While Jacques Brel is not exactly lazy—the grueling schedule of concert tours each year testified to that—I have never seen him work just for the sake of working. And he never over-recorded, which made each of his releases something of an event. That may be why all of his recordings, unlike those of many popular entertainers, are still in the catalog. Philips and Barclay continue to repackage, reissue, and sell far more copies of Brel’s albums than they do of any by such legendary French singers as Piaf, Brassens, Léo Ferré, and others.

Some time during the last several years, Brel grew tired of waiting to die. He decided to write a musical, a romantic spoof called Vilebrequin ("Brace"). The musical is not yet complete (it may never be), but last fall Jacques Brel did something remarkable, something infinitely important and welcome for those who love his work and have missed him face through the years of silence. He flew to Paris and recorded several new songs from the unfinished work.

The sessions were completed in only a few days with the backing of a small combo. Later, a full orchestral arrangement was added to each of the tracks. Then, with all the publicity flap that any French businessman could muster, Barclay could muster, the new Brel album was released in October of last year. Its distribution was so timed that, at exactly noon on a certain Thursday, every radio station in France and Belgium began to broadcast the album simultaneously in its entirety. At the same time, in Paris, a press conference was held at which newspapers and magazines received the first review copies made available anywhere. And the following day the album went on general sale. By three in the afternoon 90 per cent of the record shops in France were sold out. Brel became the first artist in France’s history to sell more than a million copies of an album before its official release. The staying power of the album (as far as sales go) is a testament to the intelligence and lyricism of its songs: depending on whom you talk to, it has sold either an additional million and a half or three million.

If Brel is terminally ill, it is odd to hear him singing better on this album—and with a stronger, surer voice—than on any previous record he has made. As for the songs, he is up to his old tricks: one entitled Les F... has so outraged the Flemish that it has been banned permanently from the radio there, and critical articles in Antwerp, Brussels, and Amsterdam have suggested that the album itself be banned from sale. There are also love songs, and they are unlike any other love songs. Les Remparts de Varsovie is an extraordinary, moving evocation of a woman, and Madame Promène Sa Poitrine (Madame Leaves Her Breasts Out) will probably annoy some feminists. But men and women alike cannot fail to be moved by Brel’s Jojo, a hymn to his bodyguard and friend of many years who is dying of cancer. And Brel even sends up (but never puts down) his contemporaries—as in Orly, a takeoff on one of Gilbert Becaud’s most famous songs.

The album becomes more enjoyable, more
significant, with each hearing. If it took ten years to make, then it was certainly worth it. It is an extraordinary experience for me to find an old friend younger than ever in his ideas, witty at times, childlike at others, urbane yet without "cultural" pretensions, provocative but never merely to attract attention, and always, always in earnest.

There is one flaw, I think, and that is in some of the hurried orchestrations. François Rauber, who has backed Brel for many years, seems not to have grown with the artist this time. And where is (are) the Ondes Martinot of the delightful Madame Sylvette Allart, a staple of the Brel tours and as integral a part of every Brel recording as the string or brass sections? But though some of the arrangements are dull, they certainly do not obscure the singer or the songs. I do not recommend this album to anyone who will be hearing Brel for the first time, but those who have even an appreciative inkling of what the man is about will need this recording as a kind of life sustenance. Since this is an import, there are no French texts—but then there are no English ones either. Brel’s enunciation is so precise (listen to Voir un Ami Pleurer), that even those whose French is rudimentary will find themselves understanding more than they thought they would.

WILL we have to wait another ten years for the next Brel recording? Well, there are other new tracks still unreleased from last October’s recording sessions, and on my last trip to Paris the rumor of the day was that, despite the problem of conflicting labels, Brel and Streisand are going to do a duet album. Doubtful, but a hell of an idea, and one entirely consistent with Brel’s penchant for doing the new and unexpected.

—Rod McKuen

JACQUES BREL: Brel. Selections from Vilebrequin, a musical in progress, and other songs. Jacques Brel (vocals); instrumental accompaniment, François Rauber arr. Jaures; La Ville S’Endormait; Le Bon Dieu; Orly; Les Remparts de Varsovie; Voir un Ami Pleurer; Knokke-le-Zoute Tango; Jojo; Le Lion (words and music by Jacques Brel). Vieillir (words by Jacques Brel, music by Jacques Brel and Gérard Jouannest). Les F.... (words by Jacques Brel, music by Joe Donato). BARCLAY 96101 $8.98.

Troubadours: Jacques Brel and the author together in Paris in the Sixties.

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35378 $7.98, © JRA 35378 $7.98, © JRT 35378 $7.98.

Performance: Good old Ringo!
Recording: Good

Oh, all right, so he can't sing—who cares? If you compare the accomplishments of the individual Beatles since their breakup, Ringo emerges as the winner. Of the four, only Ringo (good old Ringo!) remains forthright and true. His is the most limited of baritones, but he sings with a full and honest heart. If ever I run afoul of the law and am brought to trial I hope to have twelve Rings in the jury box; they'll either acquit me or, finding me guilty, urge mercy.

Ringo is the only one of the Beatles who still cares about being an entertainer, which is one of the reasons he is held in such affectionate esteem by Beatles people and continues to find new audiences among kids who were barely out of the womb when the Fab Four ruled the world. His albums have been consistent, all containing songs presenting our good lad as the worldly innocent, the average fellow dealing with life as best he can. Ringo has been cast as a kind of musical Charlie Chaplin—the romantic, happy loser, baffled but perfectly at home in the human vaudeville, an emotional hobo who is nobody's fool but his own love which is concerned. And you root for him even though you know he's never going to win.

Ringo collaborated here with his producer, Vinnie Poncia, on two sturdy, charming tunes, Who Needs a Heart and Old Time Lover. Louis Armstrong's Bad Boy is just the right kind of song for Ringo; you can almost see him twirl his cane and tip his hat as the curtain falls. Peter Skellern's Hard Times is funny and, in one line, delightfully obscene: A Man Like Me by Ruan O'Loughlin must have been written to order for Ringo. But the most impressive performance is Monkey See—Monkey Do, written by the zany, astute, and brilliant jazz balladeer Michael Franks. It's not easy to sing a Franks song without getting tangled up in its complexities, but our hero handles it with ease. Ringo for President!

R. J. V.

RECORDING OF SPECIAL MERIT

ANDREW LLOYD WEBBER: Variations. Rod Argent (keyboards); Gary Moore (guitar); Julian Lloyd Webber (cello); other musicians. Introduction; Theme (Paganini Caprice in A Minor No. 24) and Variations 1 to 23. MCA MCA-3042 $7.98, © MCAT-3042 $7.98, © MCAC-3042 $7.98.

Performance: Amusing
Recording: Excellent

Nobody can accuse Andrew Lloyd Webber of not having a sense of humor, and it puts things in perspective to realize that his Jesus Christ, Superstar was originally going to be a rock opera based on the Cuban Missile Crisis. The guy's not afraid to be audacious. What he has done here is to take the famous Paganini theme that so many composers have (you should pardon the expression) fiddled with in the past, most notably Brahms and Rachmaninoff, and orchestrated an album's worth of variations on it for cello and jazz-rock band—which is about twice as much music, time-wise, as his classical predecessors proffered.

Oddly enough, most of it works, both as satire (the opening set of variations segues from disco, to c-d-w swing, to Victorian salon music, and you haven't lived until you've heard square-dance riffs on a cello) and as music. This kind of everything-but-the-kitchen-sink eclecticism is difficult to pull off, but Webber has managed it handily by keeping his tongue gently but firmly in his cheek. 'Variations' is an amusing, thoroughly English kind of entertainment.

S. S.

Andrew Lloyd Webber Everything-but-the-kitchen-sink eclecticism

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STEREO REVIEW

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GLORIA GAYNOR: Park Avenue Sound. Gloria Gaynor (vocals); instrumental accompaniment. Kidnapped; This Love Affair; After the Lovin'; Part Time Love; and three others. POLYDOR PD-1-6139 $6.98.

Performance: Long-playing. Recording: Good

Gloria Gaynor grabs you, clasps you to her heaving musical bosom, and doesn't let go until the last track is over. It's okay for a while, but it can get a bit close in there. In After the Lovin', for instance, she creates a character who is probably one of those girls who'd hide your clothes to insure adequate afterplay. Her voice remains as impressive as ever, her tenacity is obvious; how long you can take it is a matter of personal taste. It's not an album for people who ask taxis to wait.

ROBERTA KELLY: Gettin' the Spirit. Roberta Kelly (vocals); vocal and instrumental accompaniment. Oh Happy Day; Walking in the Shadow of His Light; Speaking My Mind in His Ear; and three others. CASABLANCA NBLP-7089 $6.98.

Performance: Sacreligious. Recording: Very good

"Gettin' the Spirit" is almost a good record, for Roberta Kelly bites into her gospel-flavored song with gutsy abandon and has a fine, full-bodied voice that makes her a natural. But someone, probably Giorgio Moroder and Bob Esty, co-producers of the album, decided to present her in a setting that is a disastrous combination of disco and gospel. The first side is composed of nonstop, galloping renditions of interpretations of such neo-sacred songs as Oh Happy Day, To My Father's House, My Sweet Lord. The beat is unmistakably geared to the flashing lights of a dance emporium, while the lyrics of the songs address a more spiritual level of being. Though the line dividing gospel music from popular fare is quite thin, it does exist, lying primarily in the areas of intent and rhythmic thrust. The rules were obviously breached on this disc, indicating the producers' lack of sensitivity to the nuances that separate one form from the other, and the religious entreaties ring false. Shirley Caesar, James Cleveland, Aretha Franklin, and others who have mixed gospel with soul music are keenly aware of where to draw the line between sacred and secular music rooted in the black tradition. Roberta Kelly and her producers struck out in the wrong direction, possibly blinded by dollar signs.

SAMANTHA SANG: Emotion. Samantha Sang (vocals); vocal and instrumental accompaniment. You Keep Me Dancing; Charade; Emotion; Change of Heart; Living Without Your Love; and five others. PRIVATE STOCK PS 7009 $7.95, © 5300 7000H $7.95, © 5300 7009H $7.95.

Performance: Synthetic and sticky. Recording: Very good

The title song on this one has made the charts thanks to the magic touch of Barry Gibb of the Bee Gees, who helped with both its production and background vocals, and the sound of jingling tills can be heard in record stores across the land. But Samantha Sang, for anyone without wax in the ears, is plainly
little more than a bad-girl version of Marie Osmond. On the album cover she looks like a twelve-year-old who's been let loose at her mother’s vanity table, blond hair blown artfully back, too much green eye shadow, and a seductive, prepubescent stare. The voice is on the same level—sispering, breathy, tiny, and backed by a chorus of kewpie dolls mewing to a disco beat. Samantha Sang sings (can that be right?) of “emotion that's taken her over,” but one suspects it might just have been too large a banana split. “La, la, la, I love you,” she intones, and the kiddie chorus joins in like a gaggle of Disney dwarfs. She also sings wistfully about the loss of love in “When Love Is Gone,” but I suspect the truth is that it just hasn't had time to arrive. P.K.

JEAN TERRELL: I Had to Fall in Love. Jean Terrell (vocals); instrumental accompaniment. No One Like My Baby; Change Up: No Limit: Rising Cost of Love: and five others. A&M SP-4676 $7.98. 

Performance: Veiled Recording: Disco-cardio 

Bobby Martin's production and arrangements for former Supreme Jean Terrell's first solo album unfortunately keep her talent fairly well veiled, in the background, and at the service of the usual disco throbs—in this case sounding uncomfortably like an amplified heartbeat. Terrell is able to shake free of it only once, in the title song, in which she's impressive both vocally and dramatically. Her voice hasn't much depth or color, but it does have a strong musicality and a uniquely plaintive, expressive tremolo that provides the rather ordinary lyrics with enormous dramatic punch. After that, however, it's right back to a Sargasso sea of musical cliches. Too bad; she deserves better. P.R.

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(List compiled by David Mancuso, owner of the Loft, one of New York City's top discos.)

• LOUIS ARMSTRONG: A Legendary Performer. Louis Armstrong (trumpet, vocals); various orchestras. What a Wonderful World; Rockin' Chair; Do You Know What It Means to Miss New Orleans; Some Day Sweetheart; Basin Street Blues; High Society; and seven others. RCA CPL1-2659(e) $7.98. © CPS1-2659 $8.98. © CPK1-2659 $8.98. 

Performance: Diluted Recording: Tampered-with mono 

Producer Ethel Gabriel has thrown chronology and good sense to the winds in serving up this hodgepodge of Louis Armstrong recordings. All of them were made for Victor between 1932 and 1947 except for the 1970 remake of What a Wonderful World. The music, of course, is excellent—though by no means Armstrong's finest—and the packaging has obviously been given some attention. It is the choice of material and what engineer Don Miller has done with the sound that bothers me.

The eight earliest selections—1932 and 1933 recordings of Louis fronting big bands—contain the most interesting examples of his playing, but they are all also available in an excellent RCA/Bluebird double album (**Young Louis Armstrong, 1922-1933,** AXM2-5519) released only last year. What's more, the Bluebird release has vastly superior sound. I played the same cuts from both albums for comparison, and the echo that has been added on this new release in an effort to simulate stereo is simply appalling. The four cuts from 1946 and 1947—the early All-Stars period—
Miller's meddling with the original mono. The have not been reissued as recently, but here, track is and four others. ELEKTRA 6E-123 (guitars). Twin -House. LARRY CORYELL/PHILIP CATHERINE: the notes, Bartz describes “Love Song” as jazz albums a promise of emerging talent. In for those who saw in some of Bartz's earlier are voices so bland they would delight a Mu- tige, and he has had some perfectly dreadful excellent jazz albums for Milestone and Pres- sociates have included Max Roach, Blue Gary Bartz is a fine reed player whose past as- JAY INTERNATIONAL VJS-3068 $6.98 (from McLaughlin? 1978 119dB unweighted. Frequency response ±C.2dB, 3Hz to 100KHz. T-ID, IMD and unmatch- ed sonic performance, and new control your choice of external processor. Unbelievably accurate digital control of level and balance. A new concept in stereo imaging. To believe the sonic excellence of the Crown Distinction DL-2 Control ier, you'll have to try to hear it. At your dealer. Soon. Write for free brochure on the DL-2. It, too, makes sense.

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cisco to Ted Curson, Billy Harper, and Sam Rivers. If you have heard Friesen, chances are that you remember his rich, full-bodied cock to Ted Curson, Billy Harper, and Sam Rivers. If you have heard Friesen, chances are that you remember his rich, full-bodied voice, which includes Junior Cook, Hamiet Bluiett, Harold Mabern, Charles Sullivan, and Billy Hart—provides a superb setting. The program includes the familiar, such as Moody’s Mood for Love and Body and Soul, and such intriguing new items as Jeannine and Benny’s from Heaven. The last, sung to the tune of Pennies from Heaven, is about a lady claiming immaculate conception, and it is typical of the humor that crops up in much of Eddie Jefferson’s work. Leonard feather’s brief notes show no indication that he’s listened to this album, but I suggest that you do.

C.A.

WOODY SHAW
"Jazz must swing"

written by Slide Hampton, one of the most innovative arrangers around, and the band—which includes Junior Cook, Hamiet Bluiett, Harold Mabern, Charles Sullivan, and Billy Hart—provides a superb setting. The program includes the familiar, such as Moody’s Mood for Love and Body and Soul, and such intriguing new items as Jeannine and Benny's from Heaven. The last, sung to the tune of “Pennies from Heaven,” is about a lady claiming immaculate conception, and it is typical of the humor that crops up in much of Eddie Jefferson’s work. Leonard Feather’s brief notes show no indication that he’s listened to this album, but I suggest that you do.

C.A.

RECORDING OF SPECIAL MERIT

WOODY SHAW: Rosewood. Woody Shaw (trumpet); Joe Cohn (piano); Carter Jefferson (saxophone); Clint Houston (bass); Onaje Gumbs (piano); Victor Lewis (drums); other musicians. Every Time I See You; Rahsaan’s Run; Sunflowers; and three others. Columbia JC 35309 $7.98. © JCA 35309 $7.98. © JCT 35309 $7.98.

Performance: Good Shaw
Recording: Very good

I suspect it was Woody Shaw’s fine work on the Dexter Gordon “Homecoming” album that led to his being signed by Columbia, a label that now seems to be trying to make up for its past transgressions in the recording of...
jazz. Shaw has recorded under his own name for Contemporary and Muse, and he has appeared as a sideman on countless dates, beginning with a 1963 Eric Dolphy session, but it is only in the last couple of years that he has begun to fulfill the promise of his earlier work. "Rosewood" is a vast improvement over the 1972 "Song of Songs" album on Contemporary, and it even surpasses his praiseworthy recent Muse releases. Reared in a household that boasted a good collection of jazz and gospel records (his father was a member of the Diamond Jubilee Singers of Newark, New Jersey), Shaw was fascinated by Louis Armstrong's image and style. But it was a ten-inch history-of-jazz record offered by the A & P supermarkets that pointed his musical thinking in a modern direction. He recalls that one of the cuts, Dizzy Gillespie's 1946 Victor recording of A Night in Tunisia, completely turned him around. Some of the Gillespie influence is still evident in the thirty-eight-year-old Shaw's playing, but he eventually sought inspiration from a younger generation of trumpet players, most notably Freddie Hubbard.

There was a time when Gillespie so admired the playing of his idol, Roy Eldridge, that it was hard to tell them apart. In parallel fashion, one critic, upon first hearing the 1963 Dolphy date, suggested that the trumpeter was actually Hubbard using the pseudonym Woody Shaw, Jr. Fortunately, Shaw has since found his own way to go, and, just as fortunately, he has not chosen to follow the commercial route taken by Hubbard. This, then, is an album of unspoiled jazz, full of notable solos and well-thought-out ensemble passages, jazz that speaks a modern dialect of a wonderfully traditional, swinging language. Shaw has said that jazz must swing, and judging from this he is a man of his word. Just listen to "Rosewood's Run," Shaw's fiery tribute to the late Roland Kirk. Shaw and saxophonist Carter Jefferson leap joyfully along a madly swinging path paved by pianist Onaje Allan Gamble, bassist Clint Houston, and drummer Victor Lewis. It is a perfect team, and I hope that Shaw will be able to keep it together. C.A.
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The new Koss PRO/4 Triple A.

We did it again. We took the incredible sound and precision craftsmanship of the Koss PRO/4AA that has long made it the standard of the industry and made it even better. Because the PRO/4 Triple A’s extra large voice coil and oversized Triple A diaphragm reproduce a dynamic, full bandwidth Sound of Koss that carries you back to the live performance like nothing you’ve ever heard before. You remember it all: the expectant hush of the crowd . . . until suddenly . . . the night explodes with the glittering splendor of the all engulfing performance. You’re drawn to the full blown fundamentals and harmonics of each instrument. To the spine-tingling clarity of the lead singer’s magical voice. To the rhythmic kick of the drum and the throbbing of the bass.

You see it and hear it all again, yet you’re relaxed at home in your own private realm of listening pleasure. The PRO/4 Triple A’s extra light construction and unique Pneumalite® suspension dual headband make wearing them as much of a pleasure as listening to them. And all the while, the Triple A’s special, human-engineered, direct-contoured Pneumalite® earcushions create a gentle yet perfect seal for flat, low bass response to below audibility.

It’s a whole new experience in stereophone listening. A new performance standard for those who set their standards high. Write c/o Virginia Lamm for our free full-color stereophone catalog. Or better yet, take your favorite records or tapes to your Audio Dealer and listen to them like you’ve never heard them before . . . live on the new Koss PRO/4 Triple A.