Julian Hirsch takes a look at two decades of tape equipment
Tips on buying a tape recorder • Coming tape developments
Recording—do it right the first time • The noise dilemma

HIRSCH-HOUCK LABS TEST REPORTS: JBL L166 Speaker System • Kenwood KR-9600 AM/FM Stereo Receiver • Sansui TU-9900 AM/FM Stereo Tuner • Yeaple Stereopillow "Nearphones"

MOST $600 RECEIVERS
SOUND AS GOOD
AS THIS ONE.
The average $600 receiver sounds as good as the new Pioneer SX-650 until you start listening to prices.

If $600 is your kind of price, an SX-650 should qualify as your kind of receiver. Not only will it give you the kind of features and sound quality you'd expect for that kind of money; it'll also leave you with roughly half your receiver budget unexpectedly unspent.

But suppose your idea of a receiver price is somewhere under $300. The SX-650 is going to sound better to you than anything you thought you could afford. Because it has more power, a wider frequency range, less distortion, and far greater versatility than most other receivers in that category.

All this might sound a little extravagant; but an authentic breakthrough, an achievement like the SX-650, doesn’t happen often. We’ve learned that when our promises seem to sound especially rich, the best thing to do is simply review the facts.

It’s a fact that the SX-650 provides a continuous power output of 35 watts per channel, min. RMS into 8 ohms, from 20 to 20,000 Hz, with no more than 0.3% total harmonic distortion. It also delivers each instrument and voice at its intended level, balanced within ± 0.3% of the RIAA curve.

The facts of its stereo separation, selectivity and sensitivity, however, must be experienced: numbers are impressive, but sometimes only hearing is believing.

You’ll also be impressed by what you don’t hear from the SX-650. You won’t hear an assortment of background noises, or the thousand miscellaneous acoustic devils that live in the limbo between FM stations on lesser receivers.

On your next visit to a high fidelity dealer, listen to a Pioneer SX-650 with any reasonably accurate speakers. You’ll find either its price or its performance amazing. Depending on which you hear first.
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.

One, your records will last longer. Unlike other magnetic cartridges, Empire’s moving iron design allows our diamond stylus to float free of its magnets and coils. This improves much less weight on the record surface and insures longer record life.

Two, you get better separation. The small, hollow iron armature we use allows for a tighter fit in its positioning among the poles. So, even the 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 for our free brochure, "How To Get The Most Out Of Your Records." After you compare our performance specifications we think you’ll agree that, for the money, you can’t do better than Empire.

Empire Scientific Corp., Garden City, New York 11530

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DISC QUALITY REVISITED

Top topic in reader mail this past month (see "Letters to the Editor") has again been the deteriorating quality of the Great American Phonograph Record. Righteous indignation is the tenor of most of these letters, but a number of correspondents have moved beyond initial outrage to give a little thought to possible solutions.

One of those solutions—the "two lines" idea—has been proposed many times over the years but has never been seriously tried—quite probably because the industry still remembers the (seemingly) endless difficulties it experienced during the years of monophonic stereo transition as well as the more recent experiments with stereo/quad double-tracking. And they are probably right in their contention that it would be economically infeasible to market their products in two (or more) "grades" because of the "catch twenty-two" involved: if the premium were small enough to attract enough buyers, there is therefore, I think, only one reasonable solution: one quality level, and that level a high one.

Against the arrival of that great day, our advice to quality-conscious record buyers is to complain loud, long, and vociferously—but civilly, reasonably, and persuasively as well. Remember that the people you address are dealing with pressures you probably don't know exist. A few you might think about:

1) Competition Between Record Companies—It is extremely difficult to raise record prices unilaterally (unless you want to go out of business in a hurry). And, of course, record companies could not conceivably get together and agree to raise prices—even to secure better quality—without opening themselves to the charge of price-fixing.

2) The Great American Stockholder—He will insist that his company make a profit for the simple reason that those profits are probably what he lives on.

3) Labor and Materials—Like many other industries in these inflationary times, the record industry is caught in a price squeeze between consumer resistance to higher prices (resistance is easier when the item concerned is a luxury—bought any coffee lately?) and rising production costs.

Another common proposal is that we get the government involved in "policing" the industry. Frankly, the thought of getting another bunch of "experts" down in Washington spending their time and our money trying to solve problems Solomon couldn't get a grip on gives me a case of the pip. Chances are that such an assembly of sages would be made up of ex-record-company pensioners (the only ones who know anything about it) still in the grip of the fallacy that is at the root of the problem: the notion that cost-cutting (and the low quality that goes with it) is the only way to make a buck in the record business.

What we face in overcoming this myopic view is a simply enormous project of re-education. The public must understand that higher quality will mean higher prices for records. Manufacturers must be willing to face up to the seriousness of the quality issue on an industry-wide basis; this should probably be done through their own trade association, the RIAA (Recording Industry Association of America). And individual companies must re-educate their employees and their stockholders to see that the quality issue, if not tended to now, will inevitably affect company image and long-term profits whatever the short-term gains may be.

Signs of the times: RCA has just announced an increase in the price of its Red Seal line (to $7.98). It is reasonable to expect that others will follow shortly. It would be nice to think that at least part of this increase will go into higher quality, but more realistic to trace it to rising production costs (phono-disc vinyl is made out of oil, after all) and retailer pressure to provide more headroom for discounting. It is salutary to remember, however, in this March Tape Issue, that cassette quality continues to improve (almost everybody, including RCA, now Dolbyizes) and that those little tapes use very little vinyl. Provocative thought: do we not already have—a kind of quality-based double-stocking?
When you're buying speakers, you want to talk specs. And we don't blame you. In fact, we encourage it. Because when you invest your good money in a pair of speakers, you want more than just a pretty cabinet.

Consider the new Jensen Spectrums. These good sounds didn't just happen. They're the result of extensive engineering efforts and exhaustive testing. Testing that ranged from exacting measurements in laboratory "live" rooms and anechoic chambers to in-depth consumer surveys.

Examine our Spectrum Model 540. It's an excellent example of the superb specs you'll find throughout the Jensen Spectrum Series.

The Spectrum 540 is a 3-way, 4 element system that is so efficient it can be driven with as little as 10 watts continuous power. Its maximum power rating is 75 watts continuous.

The woofers are 12" long-throw, high compliance design. Special acoustic suspension and infinite baffle enclosure give you extremely low distortion. And a high temperature voice coil affords high power handling. Magnet structure weight is a hefty 4 1/2 lbs. with a Gap Flux Density of 10,000 Gauss.

Two 3 1/2" cone midranges give excellent power handling and eliminate break-up in the critical midrange region. Tuned isolation chambers control response at the low end of the midrange spectrum. They also provide acoustical isolation in the cabinet between the midranges and the woofer. An edge damped rim suspension with specially treated molded cone offers sharp, clear, midrange reproduction.

A 1 1/2" Mylar® rear damped hemispherical dome tweeter offers a dispersion of 170°. Its large, lightweight voice coil gives high power handling, yet maintains a low mass for good high frequency reproduction.

Tweeter and midrange controls allow you to adjust your Spectrum System to room conditions and listening preferences; controls are front mounted for convenience, continuously variable, calibrated in dB attenuation from a maximum, or flat, response.

FREQUENCY RESPONSE

About as flat as you can get... and that's good. The Frequency Response Range is an admirable 25 to 25,000 Hz.

TONE BURSTS

"Blurring" and "Overshoot" are reduced to a minimum in this acid test of transient response. The Spectrum 540 produces each waveform accurately with low distortion.

TOTAL HARMONIC DISTORTION

Distortion is kept to a minimum in Jensen Spectrum Speaker systems.

The cabinet is built with solid walnut front moldings and walnut veneer on wood composition panels. All walnut surfaces are hand rubbed for a rich luster and beauty. The baffle is finished in an attractive, durable black pebble grain.

In short, Jensen Spectrum speakers aren't designed to put out the most amount of bass or the most amount of treble. They're designed to put out the right amount. We consider them to be the best speakers we've produced in 50 years. Simply because when it comes to sound reproduction, they're extraordinarily accurate. And that's what specs are all about.

For further information and name of your nearest authorized Spectrum Dealer, write to: Jensen Sound Laboratories, Dept. SR-374136 United Parkway, Schiller Park, Illinois 60176.
LETTERS TO THE EDITOR

Disc Quality

- W. R. Kane's letter in the December issue presents a valid complaint regarding the miserable state of phonograph disc quality. It is painfully obvious that the quality of disc pressings has been declining while that of the hardware used in recording and reproducing the information found on discs now approaches perfection. This fact is especially irritating as there are a number of techniques which the record industry could practice in order to increase the quality of its product. These include the use of top-quality vinyl and the prompt replacement of worn pressing masters. I understand that such techniques are inexpensive in relation to the final consumer cost of a disc. Perhaps the industry could produce two lines of each recording and charge accordingly for the quality differences. At least some consumer choice is warranted in the matter.

Do you have any suggestions as to what effective action concerned disc-purchasers might take to help remedy this problem? I suggest that the FTC establish standards for disc quality as it has done for so many other consumer products.

CARL G. BORDEN
Piedmont, Calif.

For a discussion of the points raised by reader Borden, see this month's "Editorially Speaking," page 4.

- I have been told by clerks at major New York record stores that they are charged for returning defective records. If this is true, I think it is disgraceful! Retailers who are charged for returning defective merchandise which customers have returned to them should boycott those record companies maintaining such a policy, particularly when it seems to be the policy of many of them to produce faulty merchandise to begin with.

THOMAS P. LEWIS
White Plains, N.Y.

The Editor replies: It is not true, though it is easy to understand why some hard-pressed clerk might have recourse to such a fiction—remember that he has to deal with much more defective merchandise than any individual customer. Return rules at most record shops are standard: an unopened (shrink-wrapped) disc may be returned for anything of equal value (a lot of gift records go this route); an opened defective disc may be exchanged, but only for another copy of the same (the reason for this is that far too many naughty youngsters buy a record, take it home and tape it; return it as "defective," exchange it for another disc which they take home and tape, and so on); in some cases the store will permit replacement with a different disc if you pay a premium of $2 or so (that has now gone up in most cases to a dollar, and naughtier youngsters may have had something to do with that too).

- It's been said so many times lately that everyone is no doubt tired of hearing it, but record quality in general stinks. I recently purchased a Linda Ronstadt album on Asylum. I couldn't hear the pops and crackles because the stylus wouldn't stay in any one groove long enough. At the record store we opened three more copies, but all were badly warped. To get rid of me they talked me into taking an album of Queen instead. I quickly tired of its snap, crackle, pop, so I turned on my AM receiver. I spent the evening listening to my neighbor's CB.

CARL G. BORDEN
Sacramento, Calif.

In the instance of the CBer who is running illegal power output, I agree that he is to be held responsible for RFI as well as TVI, CB "bleed-over," and numerous other types of interference. The FCC already has the necessary laws to handle such cases but not the manpower to enforce the regulations.

R. E. ROCKWELL
Monrovia, Calif.

Ralph Hodges replies: It wasn't—and isn't—my purpose to wage a vendetta against CB, but merely to describe the controversy and its implications. However, I think reader Rockwell misses an important point. If a sound buff disturbs your sleep at nights, you can (in most communities) call the police and have him shut down. If he continues to annoy you, you can gather evidence, sue him in court, and very often win your case. In the future it is very likely that your powers to pull his plug will increase, since it has been the recent tendency of law to restrict the activities of noise makers (especially nonessential ones) more and more.

However, if CB gets into my audio system I cannot look to the police or the courts for assistance, since the law is mute on the subject except to guarantee the CBer his right to broadcast. Nor can I successfully take the manufacturer of my equipment to court, because the law at present finds no fault in his equipment's being r.f.-sensitive. If the new law doesn't do anything into effect, the audio manufacturer will have to design his equipment to pass the FCC's interference tests, and I will have to help pay the manufacturer's costs by paying more for my equipment. And if I then still have an r.f. problem (an entirely likely possibility, according to the FCC, since they don't anticipate that their test will or could be all-inclusive), I am right back where I started from. The manufacturer cannot be held responsible; after all, his equipment passes the tests.

For from having an equal right to play his hobby, the amateur radioist has, under the law, a much greater right than the audiophile at present. The law doesn't define any rights of the music listener in this context, and therefore it can be said that those rights, technically, do not exist. Also, I'm not sure I'd go along with the idea of equalizing rights in this way. Society might be inclined to consider rights of the compulsive pyromaniac (who presumably derives pleasure from his arson) as readily as it does those of the birdwatcher, except that society has decided that the pyromaniac causes intolerable inconvenience to various other people. And that's the court in which the ball lies now. Other people—lots of them—are being seriously inconvenienced. You cannot expect them to keep quiet about it forever.

Guitar Rip-off

- James Goodfriend's January 1977 column on musical rip-offs was well-written and to the point. Unfortunately, the impact of his message was, for me at least, substantially dissipated later on in the issue when Stephanie von Buchau fell prey to a柏拉图 rip-off by John Williams and Columbia Records.

John Williams may indeed be a "technical wizard in every aspect of guitar playing." However, he did not transcribe the Chaconne from Bach's Violin Partita No. 2; his rendition, like others of the same guitar, is nothing other than Johannes Brahms' arrangement for piano left-hand only (Studien).
During the last 40 years, Tandberg receivers have earned a world-wide reputation for integrity of design. Clean, clear sound. And outstanding specifications. Now that reputation for Norwegian quality, precision and reliability shines brighter than ever. Because Tandberg offers you the widest selection of receivers in its history. So you can enjoy brilliant Tandberg performance. And still choose exactly the features you want, at the price you want to pay. See them, hear them at your Tandberg dealer. They range in price from $430 to $900. And it's comforting to know that whichever one you choose, you've chosen wisely.

**NEW TR-2075.** Rated among the world's finest in European and American lab test reports. (Loaded with features, it equals or better the performance of more expensive separate chassis components.)

**NEW TR-2055.** Made specially for those who don't need all the power of the TR-2075. But who still want to enjoy all the convenience of its many features, all the pleasure of its performance.

**NEW TR-2025.** Now you can enjoy Tandberg performance with push-button ease. (This FM stereo receiver includes pre-tuning for 5 stations among its many desirable features.)

**NEW TR-1040.** Another push-button Tandberg. This one offers more power than TR-2025 plus a full array of the features that have made Tandberg an international favorite.

**NOW MORE THAN EVER—THE CHOICE IS TANDBERG**

For a color catalog of facts and figures, write to us. It's worth $1.50—but we'll send you a copy absolutely free!

Tandberg of America, Inc., Labriola Court, Armonk, New York 10504. A. Allen Pringle, Ltd., Ontario, Canada
The Discount Music Club is a no-obligation membership club that guarantees tremendous discounts on all stereo records and tapes and lets you buy what you want... when you want... or not at all if you choose. These are just a few of the money-saving reasons to write for free details. You can't get a dividend gift or dividend certificate. Dividend Gifts—every shipment carries a dividend gift or dividend certificate. Certificates redeemable immediately for extra discounts. The article was a roundup of fairly recent guitar recordings. The time it was written Parkening had not made a new recording since 1971. His current release, "Parkening and the Guitar" (Angel S26053), was not received in time for inclusion.

**Stylus Magnification**

- Julian Hirsch's phono cartridge article in January contains pictures of phonograph stylus taken with the scanning electron microscope. We have noticed that the captions supplied for Figure 2 and Figure 6 require small corrections. Magnification in Figure 2 is more like 1000x because the groove shown is about 1.5 mils wide. This probably occurred during the process of reducing the size of a photograph from 8 x 10 inches to the published version. The caption for Figure 6 should have read "With magnification of over 2000x a stylus does not appear smooth." Magnification in this shot is actually close to 5000x.

**Rubinstein's Petrouchka**

- In his January review of the new Weissenberg Petrouchka, Eric Salzman states that the set of piano pieces from this work was made for Artur Rubinstein who, he believes, never performed it. I was at Symphony Hall in Boston on February 17, 1952, when Petrouchka was performed to perfection by Mr. Rubinstein. The work was also part of the 1971 monumental series of recitals given by Mr. Rubinstein in Carnegie Hall. I believe these recitals were recorded by RCA but that only one disc of Debussy, Prokofiev, Villa-Lobos, and Szymanowski was released. Perhaps a set similar to RCA's Heifetz collection will be done for Artur Rubinstein.

**Small Labels**

- Ira Mayer's article on small record labels in January was enjoyable even though obviously limited in scope and length. However, Mr. Mayer implied that issuing a record on a small scale was a relatively inexpensive operation. That still might apply to the single artist folk disc, but not if you're trying to record a six-piece jazz band. Since our start just four years ago most costs have increased alarmingly. These rising costs force the small label to seek either higher prices for each disc, greater distribution, or a combination of the two. Like it or not, our prices are compared to general pop labels, and we can't stray too far above those. There seems to be a psychological block among even the most devoted fans in this area.

**AM/FM**

- I would like to thank and congratulate Noel Coppage for expressing his views on FM radio in his November review of Steve Miller's "Fly Like an Eagle." I'm glad someone else agrees with me that there is a growing problem with FM adopting AM programming. This may be the reason for the growing FM penetration in North America. Let's hope it doesn't get to the point of absurdity.

**Correction**

- The review of "Oba Koso" on page 120 of the December issue caused a misprint in its mailing information. The correct address from which to order this recording is: Traditional Music Documentation Project, 3740 Kanawha Street, N.W., Washington, D.C. 20015.
Every serious listener knows that separate tuners and amplifiers offer greater system versatility and flexibility than the all-in-one receiver. But Scott separates stack up where it really counts—performance.

Every one of Scott's complete line of tuners and amplifiers is engineered and designed to give you all the performance features you expect, at a price no higher than many receivers currently on the market.

Scott's T 526 AM/FM Stereo Tuner and A 436 Integrated Power Amplifier provide such important performance features as front panel Dolby de-emphasis switching, a phase locked loop multiplex section and linear motion calibrated controls.

And that's only part of the story. Compare these important performance features with any other medium-priced tuner and amplifier on the market today.

The Scott T 526 Tuner
- IFF sensitivity rated at 1.9 µV, S/N ratio 68 dB and a capture ratio of 1.5 dB.
- Signal strength and center channel tuning meters.
- Four gang tuning capacitor for better image rejection.
- AM section designed around a tuned RF amplifier using J-FET for improved signal-to-noise ratio.
- AM noise suppression circuitry.

The Scott A 436 Amplifier
- 42 watts RMS per channel, driven into 8 ohms from 20 Hz to 20 kHz with no more than 0.3% THD.
- True logarithmic meter amplifier obviates the need for range switching. Individual channel power level meters calibrated in % of full power output capability eliminates confusing dB and VU readings.
- Two completely independent tape monitors allow two tape recorders to be used simultaneously for direct tape-to-tape copying.
- Instantaneous electronic protection circuitry in the output stage.
- IM distortion lower than 0.15% for a cleaner sound without listening fatigue.
- High and Low filters, two auxiliary outlets and mic inputs.

And the Scott T 526 and A 436 come complete with professional rack-mount handles, and are backed by a three-year, parts and labor limited warranty.

AR's New Catalog Includes Speaker Design "Philosophy"

Acoustic Research's new full-color catalog (thirty-six pages) describes in detail the company's current loudspeaker line and its approach to sound reproduction in general. The first part of the catalog deals with the standard of accurate reproduction as defined by AR, as well as the testing and manufacturing of AR speaker systems. The concluding sections deal with speaker evaluation, installation, and use, plus the physics of sound production and reproduction. The catalog is approximately paperback size (8 1/4 x 5 1/4 inches); it is available free from selected AR dealers or for $1 from Acoustic Research, 10 American Drive, Norwood, Mass. 02062.

New Head for Advent Cassette Deck

The new Advent 201A stereo cassette deck, an evolutionary successor to the Model 201, has a "Sendust" alloy record-playback head that is reported to combine the desirable performance characteristics of permalloy with the wear resistance of ferrite materials. Another added feature of the 201A is a stereo-headphone amplifier, the output of which is connected to a standard phone jack on the side of the unit. The transport of the original 201 is retained, as are all the control and performance features, including the single recording-level meter that can be switched to read either channel or the higher of the two. Frequency response of the 201A is 28 to 15,000 Hz ±2 dB, with an A-weighted signal-to-noise ratio exceeding 60 dB with chromium-dioxide tape and 57 dB with "standard" tape. Wow and flutter are less than 0.08 per cent (JIS weighting). Distortion, which is tape dependent, will not be affected by more than 0.1 per cent by the electronics up to and beyond tape saturation. The Advent 201A measures approximately 14 x 4 1/2 x 9 1/4 inches; it is supplied with a plastic dust cover. Price: $399.95.

De Luxe Tape Deck From Technics

An "Isolated Loop" tape-drive system is a feature of the RS-1500US stereo open-reel deck from Technics by Panasonic. The Isolated Loop employs a single large capstan with two pinch rollers that engage the tape at the beginning and end of the loop. Forming the loop itself is a cluster of four heads (half-track erase, record, and playback, plus quarter-track playback) and a guide roller at the bottom. The roller carries stroboscopic markings that are illuminated by a strobe lamp. The capstan motor is speed governed by a quartz-crystal oscillator and a phase-locked loop. The FM section employs Sherwood's "digital-detector circuit" together with a phase-locked-loop multiplex stage. Usable sensitivity is 1.7 microvolts, with 2.7 microvolts needed for 50-dB quieting with a mono signal. Capture ratio is 1 dB, AM suppression is 65 dB, and spurious-response rejection is 95 dB. Alternate-channel selectivity is 75 dB.

Robins Splicer Takes Cassette, Eight-track, Open-reel Tape

A new Robins splicing jig has side-by-side grooves for the 1/4-inch tape of eight-track cartridges and open-reel as well as the narrower tape used in cassettes. Spring-loaded fingers that can be flipped to one groove or the other hold the tape that is to be cut by a single-edged razor blade and then joined by standard splicing tape. A length of double-face tape is supplied to secure the jig to a tape machine or other convenient surface. The splicing jig is Robins catalog No. R26060. Price: $2.89.

Sherwood's 120-watt FM-only Receiver

The S8910 closely resembles the other top Sherwood receivers in performance and appearance, except that it lacks an AM tuner section. Its continuous-power output of 60 watts per channel is available at any frequency from 20 to 20,000 Hz with no more than 0.1 per cent harmonic or intermodulation distortion. The FM section employs Sherwood's "digital-detector circuit" together with a phase-locked-loop multiplex stage. Usable sensitivity is 1.7 microvolts, with 2.7 microvolts needed for 50-dB quieting with a mono signal. Capture ratio is 1 dB, AM suppression is 65 dB, and spurious-response rejection is 95 dB. Alternate-channel selectivity is 75 dB.

Special features of the S8910 include provisions for monitoring from and dubbing between two tape decks, switching between two pairs of speakers, connections for a four-channel matrix adapter, and FM deemphasis that is switchable between 75 and 25 microseconds (to facilitate the use of a Dolby..."
Fact: If you're concerned about smoking, you should know something about gas.

You might not know it, but cigarette smoke is mostly gas—many different kinds. Not just 'tar' and nicotine.

And despite what we tobacco people think, some critics of smoking say it's just as important to cut down on some of the gases as it is to lower 'tar' and nicotine.

No ordinary cigarette does both. But Fact does.

Fact is the first cigarette with the revolutionary Purite filter. And Fact reduces gas concentrations while it reduces 'tar' and nicotine.

Read the pack. It tells how you get the first low gas, low 'tar' smoke with good, rich taste.

Taste as good as the leading king-size brand.

And that's not fiction. That's a Fact.

Fact: The low gas, low 'tar'.

Available in regular and menthol.


Regular, 14 mg. 'tar,' 1.0 mg. nicotine; Menthol, 12 mg. 'tar,' 1.0 mg. nicotine per cigarette, by FTC method.
The HP series of stereo power amplifiers offers evolutionary refinements over the original Audionics products. The new PZ3-II in particular, rated at 100 watts per channel continuous within the full audio band with no more than 0.03 per cent harmonic distortion, is now optionally available with peak-reading output-level meters and a black-anodized front panel suitable for rack mounting.

The full complementarity-symmetry design of the PZ3-II includes what Audionics calls a "dynamically biased" output stage, said to be responsible for reduced notch and high-frequency distortion. Wide-bandwidth driver and output transistors are used, while the audio passband has been deliberately limited to 70,000 Hz. Input for rated output is 1 volt into a "tape-spill" function that permits operation without the take-up reel being used. Either gap on the record head can be switched to "dynamically biased" output stage, said to be responsible for reduced notch and high-frequency distortion. Wide-bandwidth driver and output transistors are used, while the audio passband has been deliberately limited to 70,000 Hz. Input for rated output is 1 volt into a "tape-spill" function that permits operation without the take-up reel being used. Either gap on the record head can be switched to

After a long absence, Ampex has returned to the audio-hobbyist market with a new open-reel tape deck suitable for professional or audiophile use. The ATR-700 is available in half- or quarter-track stereo versions and even in mono (full-track). The three-motor, solenoid-switched transport is equipped with various editing features such as a pause control, a switch that disables the tape lifters, and a "tape-spill" function that permits operation without the take-up reel being used. Either gap on the record head can be switched to playback duty for track synchronization. Controls include four-in, two-out mixing capability, a master recording-level control, and a variable-speed adjustment operable on all three speeds (15, 7½, and 3¾ ips). The two built-in microphone preamplifiers have balanced inputs.

The ATR-700 is set up for various types of Ampex tape as well as for Scotch (3M) 250. Front-panel switches provide three different positions for both recording bias and equalization. With the recommended tapes, frequency response is 40 to 18,000 Hz at 15 ips, 40 to 15,000 Hz at 7½ ips, and 40 to 7,500 Hz at 3¾ ips, all ±2 dB. Signal-to-noise ratio (A-weighted) is 55 dB for quarter-track and 60 dB for half-track. Wow and flutter (NAB) are 0.08 per cent for the two higher speeds. The machine takes reels up to 10½ inches. Approximate dimensions are 21¾ x 17½ x 9¾ inches. Price: $1,695. An optional remote control with 16-foot cable costs $115. A portable carrying case will also be available.

The Fasett speaker system, new from Tandberg, is a compact design (11 x 9½ x 8¼ inches) that presents a hexagonal profile when viewed from the front. Within the bass-reflex enclosure are a 5-inch woofer and a 2¼-inch cone tweeter. The multiple sides of the enclosure provide for a number of mounting schemes, including installation with drivers facing directly at or somewhat away from the listener, or drivers angled somewhat upward. The Fasett can also be hung, or attached to the wall by means of keyhole slots in its rear.

The Fasett system's impedance ranges between 4 and 8 ohms, and its power-handling capability is 25 watts continuous or 40 watts program material. An input of 6 watts produces a 96-dB output level at a distance of 1 meter. Frequency range is 50 to 20,000 Hz. The Fasett is available in black, antique white, and orange. Price: $160 per pair.

"Automatic Program Locate Device" is Sharp Electronics' nomenclature for the sequential programming system in the Optonica Sequencer (Continued on page 17)
A new concept in speaker comparison. Instead of speaker vs speaker...
If you were satisfied with conventional speaker sound, Technics would have made a conventional speaker. Then you could have compared our speaker to their speaker. Instead, we developed Technics Linear Phase Speaker Systems and compared them to music. Live music. Look at the waveforms. On the left are oscilloscope readings (the fingerprints) of representative musical instruments. On the right, these instruments as reproduced by Technics Linear Phase SB-7000A. Waveform fidelity that could only be achieved by a drastic departure from conventional speaker design.

How did we do it?

Our engineers realized there were three conditions to be satisfied. First, the crossover network should be designed to provide an overall linear phase characteristic for the whole speaker system, while simultaneously compensating for the different acoustic pressures of the individual drivers. Second, each driver unit must be precisely located in the optimum acoustic position. Third, the driver units must be designed and manufactured with flat amplitude and a wide frequency response.

By using our unique new phase-controlled crossover network, which incorporates 6 dB and 18 dB/octave cut-off slopes
Technics Linear Phase

Piano Waveform reproduced by SB-7000A.

Bass Drum Waveform reproduced by SB-7000A.

and special phase-correcting circuits for each driver, Technics engineers have been able to achieve an overall phase response, linear between $0^\circ$ and $\pm 45^\circ$ between 100 Hz and 15 kHz. An incredible figure in a multi-range speaker system! The special phase-correcting circuits have also eliminated "audible dip" at crossover frequencies. These circuits assure excellent directional localization of the original sound source within the acoustic field.

To align the acoustic centers of the speaker units in precisely the same vertical plane, Technics engineers had to develop a new time-delay system using BBD (Bucket Brigade Device). After alignment, each unit was fine-tuned to assure precise linearity. Additionally, each unit was positioned vertically for the best horizontal dispersion and then spaced as closely as possible for the best vertical dispersion of all sound frequencies.

Each of the wide frequency response/low distortion driver units was designed and manufactured by Technics after exhaustive amplitude and phase studies in anechoic chambers. It is this ability to both design and manufacture that has helped us become the world's largest speaker company. Supplying many of Europe's and America's finest speaker system designers with high-quality speaker units.
The result: Waveform Fidelity

The diagrams show the phase and amplitude characteristics of Technics Linear Phase and three other leading speaker systems.

The other speaker systems, including those promoted with "phase linearity," show severe phase shifts at different frequencies.* But, as you can see, Technics Linear Phase Speaker Systems show an unprecedented flat and linear phase response. This results in more precise positioning of instruments in the stereo sound field.

What does all this mean to you?

Waveform fidelity you can hear... and see. For the first time in audio history there is a speaker system with not only wide frequency response, but complete linearity: Flat amplitude/frequency response and linear phase/frequency response.

Technics SB-7000A, SB-6000A and SB-5000A. The world's most linear phase speaker systems. No more wandering stereo imagery, no more bass loss at high volumes; just music, pure and simple, as it was originally played. Live.

And if specifications are music to your ears. Listen to these:

SB-7000A: 3-way speaker system with 13 3/4" woofer, 4 3/4" mid-range and 1 1/4" dome tweeter. Output level (1M) of 90.5 dB/watt.

SB-6000A: 2-way speaker system with 12" woofer and 1 1/4" dome tweeter. Output level (1M) of 91.0 dB/watt.

SB-5000A: 2-way speaker system with 10" woofer and 2 3/8" tweeter. Output level (1M) of 92.0 dB/watt.

The SB-7000A cone-type units are made from a new triple layer TC/aramid fiber. This combines lightness with high Young's modulus (strength) for smooth piston motion and low distortion.

The high-efficiency dome-type tweeters in the SB-7000A and SB-6000A use a diaphragm of heat molded expanded polyurethane on a silk cloth base.

Sounds great, doesn't it. But there's really only one way to be truly convinced. Listen to Technics Linear Phase Speaker Systems. Now available for demonstration at selected audio dealers for very selective ears.

*Test data and methodology available upon written request. Write Mr. James Parks, Technics Dept., One Panasonic Way, Secaucus, New Jersey 07094.

Technics by Panasonic
RT-3535 stereo cassette deck. The system is controlled by nine push keys labeled 1 through 9. The numbers are meant to correspond to recorded selections on the cassette; these selections are played in the order in which they are entered on the keyboard. A circuit within the deck locates and "counts" the intervening unrecorded sections to identify each selection. A tenth clear key wipes out the sequence and prepares the system for new commands. An LED indicator identifies the selection being played by number.

The RT-3535 is a front-loading two-motor machine with Dolby noise reduction and switchable bias and equalization for all current tape types. There is also a switchable limiter circuit to automatically prevent over-recording and a novel space function that inserts an appropriate unrecorded interval between selections when a recording is being made. Frequency response is 30 to 15,000 Hz with "normal" tape, 30 to 16,000 Hz with chromium-dioxide tape, and 30 to 17,000 Hz with ferrichrome, all ±3 dB. Signal-to-noise ratio is 58 dB without Dolby circuits; wow and flutter are 0.04 per cent (rms). Approximate dimensions of the RT-3535 are 18 1/2 x 5 3/4 x 14 inches. The machine has simulated walnut side panels. Price: about $430.

The SAE Device reduces disc ticks and pops.

The Model 5000 from Scientific Audio Electronics is described as an "Impulse Noise Reduction System" intended specifically to suppress or eliminate the clicks, pops, and scratches that intrude on disc-record reproduction. The operation of the device is based on differences that distinguish such noises from program material, including attack and decay times and phase characteristics. An electronic "program" circuit, together with a logic circuit, detects the presence of impulse noise and interrupts the audio signal for its output of more than 9 volts into 10,000 ohms. Insertion loss is less than 1 dB and the signal-to-noise ratio exceeds 90 dB. Dimensions: 3 x 9 1/4 x 10 1/4 inches. Price: $200.

The JVC Headset for Reproduction and Binaural Recording.

The JVC HM-200E is a headset containing both dynamic transducers for listening and a pair of electret-condenser microphone capsules for making binaural recordings. The microphone elements are mounted on the outside of each earpiece within cavities that simulate the shape of the external ear and as close as possible to the actual ear of the wearer. The electret capsules are powered by AA cells contained within the earpieces. A three-position microphone switch provides flat frequency response, low-frequency attenuation, or "off." Overall microphone response is 50 to 10,000 Hz ±10 dB. Output impedance is 600 ohms, and the microphones' electronics provide a signal-to-noise ratio exceeding 45 dB.

The headphones in the HM-200E are of the acoustically isolating type with thickly padded ear cushions and headband. The phones have a frequency response of 50 to 10,000 Hz, an impedance of 8 ohms, and a level switch. Air seals and partitioning prevent any acoustical interference with the microphones. The entire headset weighs just over 1/4 pounds. The cables are about 6 feet long, terminating in a three-conductor stereo phone plug for the headphones and a pair of two-conductor phone plugs for the mikes. Also supplied is a polystyrol-foam dummy head (with screw sockets for microphone stands and adapters) to be used for recording without the operator's having to wear the headset. Price: approximately $80.

The Mobile Amp and Preamp from Uher.

As a companion to the Uher portable stereo cassette machines, the manufacturer now offers a two-piece amplifier/preamplifier combination for automobiles, boats, or any other vehicle with a 12-volt storage battery. The separate power amplifier installs in any convenient space; since it switches on automatically when it senses an audio signal at its input, it is unnecessary to route its battery connections through the preamplifier for on/off switching. The preamplifier, which provides bass, treble, mid-range, and balance controls, occupies the upper part of a special under-dash mounting-bracket assembly. Beneath it, a compartment receives the tape machine, which mates with a signal/power-cable connector when slid into place. The power amplifier is rated at 25 watts per channel continuous into 8 ohms from 50 to 20,000 Hz with no more than 3 per cent harmonic distortion. The preamplifier's tone controls have a range of ±17 dB at 35 Hz, ±8 dB at 1,000 Hz, and ±15 dB at 30,000 Hz. The preamp/mounting-bracket assembly is just slightly wider than the 7-inch width of the Uher portables and about 4 inches high. The combination of preamp/bracket and power amp is designated the CR200 "Stereomatic." Price: $195.

MARCH 1977

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.
You may have noticed that few turntable manufacturers call your attention to the critical role of the tonearm in record playback. Dual is an exception. For years, we have been pointing out that the fidelity of reproduction and record life are significantly influenced by every aspect of tonearm design. Whatever the shape, materials, or mechanics of a tonearm, the goal is always the same: to maintain the cartridge in the correct geometric relationship to the groove and to permit the stylus to follow the contours of the groove freely and accurately. Whenever the stylus cannot follow groove undulations, it will gouge its way. And as we have frequently reminded you, there is no way to repair a damaged record.

Every tonearm designer should consider geometry, mass, balance, resonance and bearing friction. However, despite the simple fact that the shortest distance between two points is a straight line, some designers are more concerned with appearance. Hence, the curved tonearm, whose deviation from optimum design simply add mass, reduce rigidity and increase the likelihood of resonance. Which is why all Dual tonearms are straight.

Dual engineers have always designed for optimum performance, which depends on more than external shape. Stylus force is applied through a long coiled spring centered around the vertical pivot, and its accuracy is maintained independently of record warp or turntable level. 3c is the dynamic balance of the tonearm. And the anti-skating system is not only calibrated separately for all stylus types, but is self-compensating for groove diameter.

You might keep all this in mind when you are considering your next turntable. Chances are you'll want it to be a Dual.

**Why we want you to know more about tonearms. And why others may not.**

Dual

*United Audio Products, 120 Sc Columbus Ave., Mt. Vernon, N.Y. 10553*

Exclusive U.S. Distribution Agency for Dual

The Dual CS721. Fully automatic, single-play with continuous repeat. DC, brushless, electronic, direct-drive motor. Vertical Tonearm Control, anti-resonance filters, adjustable cue-control height and descent speed. 10% electronic pitch control. Illuminated strobe. Less than $400, including base and cover. Dual CS704, similar, but with semi-automatic tonearm, lead-in groove sensor. Less than $310, including base and cover.

**Specifications (DIN B):**
- Dual CS721: Rumble: <72dB; Wow and flutter: <±0.03%
- Dual CS704: Rumble: <70dB; Wow and flutter: <±0.05%
Semiautomatic Dual tonearms pivot horizontally and vertically on identical sets of pivot points and high-precision low-friction bearings. The metal of the pivot points is first hardened and then honed, a process which produces microscopically smooth surfaces. The ball-bearing races are only 0.157 inch in diameter. Bearing friction: vertical, <0.007 gram; horizontal, <0.015 gram.

Stylus force, applied by long coiled spring around vertical pivot, remains perpendicular to record even if turntable is not level.

The curved tonearm may appear longer than the Dual tonearm, but both actually have the identical effective length and horizontal tracking angle.

The Dual 1249: Fully automatic single-play/multi-play plus/continuous repeat. Belt-drive, 12" dynamically-balanced platter. 6% pitch-control, illuminated strobe. Less than $280.

Other full-size belt-drive models include: Dual 502, semi-automatic, less than $160; Dual 570, semi-automatic, with lead-in groove sensor, less than $200.

Specifications (DIN B):
- Rumble: >66dBA; Wow and Flutter: <±0.05%.

Actual size of Dual tube (A) and typical curved tonearm (B). For the same effective length, straight Dual tonearm has lower mass and resonance yet greater rigidity.
Tape Q. and A.

By Larry Klein

Which Tape Format?

Q. I'm considering adding a tape machine to my system, but I can't make up my mind whether to go cartridge, cassette, elcaset, or open-reel. What are the relative advantages of each format both for recording and for playback of prerecorded tapes?

ARTHUR KRAMER

A. Choose open-reel if you are interested in making live tapes, editing, and monitoring while recording. The open-reel format also provides (by at least a small margin) the lowest distortion, widest frequency response, lowest wow and flutter, and lowest noise levels, and it is less likely to distort high-frequency signal peaks. Cassettes, on the other hand, have the virtues of compactness, convenience, and a performance level (in the top-quality machines) that will satisfy all but the most critical listeners. Off-the-tape monitoring is available with cassettes, but only in the expensive three-head decks.

Eight-track cartridges have many of the same deficiencies as the cassette when compared with open-reel machines, plus specific problems of their own. In addition, they are far less convenient to record on than cassettes because of their use of four sets of parallel stereo tracks on a continuous-loop tape. Pre-recorded eight-track cartridges played at home—rather than in a car—have a hiss level that makes them unacceptable for critical listeners (road noise masks the hiss in cars). Although the usual run of prerecorded cassettes are only marginally better in this regard, the Advent prerecorded cassettes all sound fine. (For a free copy of the Advent catalog, write to: S. R. Shapiro, Advent Corp., 195 Albany Street, Cambridge, Mass. 02139.)

The year-old elcaset format is off to a slow start, and it's hard to judge at the moment whether to go cartridge, cassette, elcaset, or open-reel. What are the relative advantages of each format both for recording and for playback of prerecorded tapes?

Q. The prerecorded cassettes I have been buying lately, which are marked in very small print as being Dolby B processed, have highs in playback only when the Dolby circuit is switched off; when I switch in my deck's Dolby circuit, the highs disappear. I think I would rather have the highs and the hiss than neither.

PAT BREWSTER
Seattle, Wash.

A. Many of the cassette duplicators in the United States, for one reason or another (mostly because of inadequate care and equipment), don't record the audio frequencies above 8,000 Hz or so at full strength on their prerecorded cassettes. Since the Dolby encoding process boosts the low-level high frequencies, Dolby-biased tapes played without decoding sound somewhat brighter than non-Dolby-biased tapes. However, when you switch in the Dolby decoding, the extra boost is removed—as it should be—along with 5 or 6 dB of hiss, and you are left with a tape that is reasonably hiss-free but sounds dull because of the highs that were lost in the duplication process. It is obvious that the problem lies not with Dolby processing, but rather with those duplicators who are doing such a rotten job. This is not true of all prerecorded cassettes; the Advent releases, for example, demonstrate just how good Dolby-biased prerecorded cassettes can be.

Incidentally, if you seem to be losing highs with your own home-made Dolby cassettes, first check the performance of your machine by dubbing and playing back a disc without the Dolby circuits switched in. If everything sounds okay without Dolby, but high-frequency loss is heard when you record and play through the Dolby circuits, then either your tape machine's equalization and bias do not match the requirements of the tape you are using (a small loss in highs because of overbias, for example, will be doubled by the Dolby circuits), or the Dolby circuits in your machine are not properly adjusted.

Old Tape, New Deck

Q. I've been considering upgrading my cassette deck to a front-loading type. However, I've been told that tapes recorded on one good deck will not always sound first-rate on a different good deck. Will a new, higher-quality deck play my previously recorded tapes without any loss in sound quality?

BIL BROCK
Keswick, Va.

A. First of all, I detect an implication in your question that front-loading decks are necessarily of higher quality than top-loading types. Some are—but some aren't. Front loading is a convenience factor; in and look for whatever is available. They offer a fast, efficient, personalized service both over the counter and through mail order, and visitors are welcome to stop in and browse. A catalog costs $1. The address is Barclay-Crocker, Dept. SR, 11 Broadway, New York, N.Y. 10004.

Missing Highs

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(Continued on page 22)
The Simple Answer is A Complex Solution.

New D3 Fluid

- unmatched function
- unequaled vinyl safety

The Discwasher® System:
the best record care system in the world.

Discwasher Group Columbia, Missouri
If your cartridge is more than three years old, don’t replace your stylus!

Don’t get us wrong. There is nothing worse than playing your records with a worn stylus. And no better way to restore your old unit to its original glory than a new diamond.

But frankly there have been significant strides made recently in the phono cartridge field. And the new cartridges of today stand head and shoulders above even the finest of a few short years ago.

Here’s the choice: Get fresh—but outdated—performance with a replacement stylus, or enjoy all the benefits of modern cartridge research and development for just a few dollars more. You’ll find that you can update your system for far less than you might imagine. It’s probably the most dramatic single improvement you can make.

For instance, Audio-Technica offers Universal™ cartridges equipped with a genuine Shibata stylus and our uniquely effective Dual Magnet™ system beginning at just $75.00 list. Or you can replace your present cartridge with a fresh new Audio-Technica cartridge with highly-polished elliptical tip for as little as $45.00 list.


Dubbing Dolby

Q. My question is rather simple: when recording a Dolbyized tape from one deck to another, is it better to decode the tape playing from deck No. 1 and re-encode when recording on deck No. 2, or to record the tape from deck No. 1 to deck No. 2 without decoding and re-encoding?

A. RINGEL
Brooklyn, N.Y.

Best results are achieved in duplicating Dolbyized tapes (when they lack a reference test tone) if you decode the signal and then re-encode it when making the copy. Although this may seem like redundant processing, it is necessary because proper decoding of a Dolbyized signal can be achieved only if the decoder circuits “track” the encoding both in signal level and frequency. When you copy Dolbyized audio material (without decoding it, that is), the odds are that it will be recorded on the new tape at a higher or lower level than on the original tape. This can confuse the Dolby decoding circuits because the Dolby reference level has been shifted. However, if there is a Dolby-level test tone on the tape with the encoded program, then this can serve as a zero-reference guide during future duplications—and without decoding. Note that any frequency aberration that occurs in the signal after it has been encoded (because of the use of a “hotter” tape for the copy, for example) will be emphasized by the decoding process. In short, if an encoded signal is not fed to the decoder circuits at exactly the same reference level at all frequencies that it had when encoded, then the Dolby circuits simply cannot react properly. The result is a diminution of the noise-reduction potential of the Dolby circuits and some high-frequency boost (or loss) in playback of low-level (soft) audio signals.
HOW TO TELL A FISHER CASSETTE DECK FROM ANY OTHER.

Fisher manufactures only 3-head cassette decks. For the important reason that all professional recordings are made on 3-head decks.

The only way to make consistently perfect, high fidelity tape recordings is to listen to the sound as it is recorded. The way professional recording studios do.

Tape Transport. In the CR5110 a large, dynamically-balanced heavy weight flywheel is driven by a regulated speed DC motor. The CR5115 uses servo control to provide even more precise tape speed. A precision-ground capstan provides good tape-to-head contact and accurate tape movement. Wow and flutter on the CR5110 is less than 0.09% WRMS; on the CR5115, less than 0.07% WRMS.

Limiter. The CR5115 has switchable limiter circuitry to prevent excessive peak levels from causing distortion. Sudden loud passages are automatically recorded at the maximum distortion-free level — without affecting the overall input level and while maintaining high signal-to-noise performance — better than 58dB with Dolby.

Tape Selector. Fisher includes a three-position tape select switch which sets the recording electronics for all of the latest tape formulations. You get full compatibility between recording circuits and the type of tape used...for Cr02, and standard tapes, as well as FeCr tape.

Dolby. Both the CR5115 and CR5110 have built-in Dolby noise reduction circuitry. It virtually eliminates tape hiss and improves the signal-to-noise ratio by as much as 10dB.

The CR5115 has switchable Dolby FM circuitry, complete with the 25 micro-second de-emphasis necessary for the proper demodulation of Dolby-encoded broadcasts. Even if your receiver has no FM Dolby circuitry built-in, you can enjoy the full dynamics and noise-free reception of Dolby-encoded FM with the CR5115.

It's really easy to tell Fisher tape decks from all the others. Compare the features and specs of the CR5110 (priced at $199.95*) and the CR5115 (priced at $249.95*), and you'll see why they're the best value around. Now at fine audio stores.

Fisher Corporation, 21314 Lassen Street, Chatsworth, Calif. 91311

FISHER
The first name in high fidelity.
ON BUYING A TAPE RECORDER

There are three steps to buying a good tape recorder: (1) deciding what type of machine you want; (2) selecting one that performs to your standards, and (3) explaining the apparent extravagance to your nearest and dearest. Item 1 presents no special difficulties if you take your time and think things through (for starters, see Larry Klein's Q & A column this month). Item 3 is plainly impossible, so I will not even try to deal with it here. But item 2 is, as we know, within the realm of the possible for most consumers. True, the task is far from easy and a good deal less than straightforward, and winning your way through to truth, light, and the best machine for you requires an attack on more than one front, but then, as we all know, nothing good comes easy.

First, what about specifications? A good tape machine has good specs, to be sure. Unfortunately, a poor machine may just as easily have good—even somewhat unbelievably good—specs. The subject of tape-recorder specifications (and particularly the various non-comparable ways in which they are derived and presented) is, in other words, a large one, too large for the scope of this short column. Specs definitely have their uses, but for the moment we'll have to consider other legitimate means to our goal. One of these is the brute economic strength ploy: it is possible to pay top dollar for a brand name with a reputation as solid as the pyramid of Cheops and never have reason to regret it. I think this is a fine tactic, though it may not appeal to the bargain hunters among us. But once you've taken these first two approaches—specs and brand names—as far as they can go, you have no choice left except the personal research project. Reports in magazines and advice from friends are the starting point; the next step takes you into the store or to trust a salesperson about, yourself—have in hand well ahead of time the machines you have under consideration. Remain sympathetic to the machines you have under consideration. Don't hurry; deliberation on complex matters, so prepare yourself—have in hand ahead of time any information that might be difficult to get in the store or to trust a salesperson about, such as the recommended type(s) of tape for the machines you have under consideration. Resolve to be as systematic and thorough as circumstances permit. Remain sympathetic but firm when salespeople become increasingly restless with your indecision. Don't hurry;

Audio Basics

By Ralph Hodges

The Facsimile Test: This is the most obvious measure of a good tape recorder—can the machine make a recording with no audible difference from the original? A change in tonal balance is an audible difference, and it will most certainly be encountered if the machine is not properly matched to the tape. Distortion, noise (hiss), and flutter are other differences; they should not be added in more than barely perceptible amounts.

For valid comparisons between recorders you have to proceed very carefully. First, assuming you can monitor off the tape with both machines while recording, advance the recording levels on each in turn until distortion becomes obvious, and then back off until it just disappears. This makes their distortion levels equal. Then, using only their playbackLevel controls (which we'll also assume they have), make their loudness levels equal. Finally, listen to see if their hiss levels are equal. If they are not, the quieter machine wins. There are any number of variants on this test, but they must take all the above factors into account. Thus, for two recorders to be equal, their distortion, loudness, and noise (and also their frequency responses, of course) must be simultaneously equal.

Those unfortunate who are considering machines that lack playback-level controls and/or off-the-tape monitoring can also perform this test, though at great additional inconvenience. To match distortion, trial-and-error procedures are called for, with constant rewinding of the tape to listen and then re-recording with readjusted recording levels. To match loudness levels, you can always plug the left playback channel of one machine into the left tape input of the amplifier or receiver and the left playback channel of the other machine into the right tape input. Then the system's balance control can perform the level matching. But the tester be sure to listen to only one channel (machine) at a time.

The Noise Test: This is the ultimate frequency-response test, useful only to those who want assurance that the machine will handle the highest audible frequencies without loss. It consists simply of recording and listening to FM interstation noise. (Full details on this test were provided in the article "Using FM Interstation Hiss to Test Recorders and Speakers" in the November 1976 issue of STEREO REVIEW.) To make sure the tuner provides the very highest frequencies (its multiplex filter might ordinarily prevent this), you can feed the recorder from the "FM detector" or "four-channel" jack which is a feature of most modern tuners and receivers. A moderate recording level should be used, particularly with cassette decks. Any loss of extreme high frequencies will be immediately apparent unless the loudspeaker has reduced highs to begin with.

The Reductio ad Absurdum: This works only on those machines that permit recording on one channel at a time (most cassette decks, for example, don't). Using appropriate recording levels at all times ("appropriate" means levels that are as high as possible without running into audible distortion), record a mono program on one channel. Listen to it; it

(Continued on page 26)
The battery that powers your watch can also ruin it.

If the battery in your electric or electronic watch ever leaked, it could damage the watch internally. To help prevent leakage, every watch battery made by Union Carbide is sealed in a unique and patented way: by radially compressing a resilient gasket (1) between the cell top (2) and outer metal container (3). "Eveready" was the first battery maker to use this effective method for preventing leakage. Ask the U.S. Government. They granted us Patent No. 3,069,489.

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You've seen television commercials where somebody compares the longer-lasting power of their battery to ordinary batteries. But you've never seen a commercial where anybody says that their battery lasts longer than "Eveready" Alkaline Power Cells. Because for electronic flash, cassette recorders, calculators, smoke detectors, movie cameras—anything that really eats up energy—you can't buy a longer-lasting power system than "Eveready" Alkaline Power Cells.

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Sure, you know where to look. Junior was using it last night to work on his car. Or did he borrow the flashlight Amy uses to read with under the covers after "lights out"? If your family is typical, the flashlight you may have to depend on in an emergency may not be where you think it is. Keep a spare in a safe place, like your glove compartment. The "Eveready" Economy Flashlight makes it easy, because it's priced right. Get one. You never know when you'll need it.

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For instance: A CX-824 tape deck, world-renowned for reliable performance. Connected to an IC-155A pre-amp. With the signal amplified by a DC-300A power amp, proved in many thousands of hours of professional use. Output controlled, monitored and switched by an OC-150. Possibly a VFX-2 for personal control of crossover points. And sound faithfully reproduced by ES-15 electrostatic speakers.

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What you don't know about effective tip mass won't hurt you, just your records.

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We put Melissa Manchester to the Memorex test: was she listening to Ella Fitzgerald singing live, or a recording on Memorex cassette tape with MRX₂ Oxide?

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MEMOREX Recording Tape
Is it live, or is it Memorex?
EIGHT ALL-NEW MARANTZ UNITS.

Probably the largest—and certainly the finest—line of stereo receivers ever unveiled. And it all starts with the world's greatest receiver, the Marantz 2385, with output rated at an astonishing **185 Watts per channel** (minimum RMS at 8 Ohms, 20-20,000 Hz, with no more than 0.05% Total Harmonic Distortion). And at the other end of the line-up is the most incredible receiver value Marantz has ever offered: the 2216, with 16 Watts per channel, minimum RMS at 8 Ohms, 20-20,000 Hz, with no more than 0.5% Total Harmonic Distortion.

And there are 6 other new and outstanding Marantz receivers—with prices to match any budget, with all-new higher power output, and with range of features to match any degree of involvement with audio.

Never before has the incomparably thrilling sound of Marantz been available over such a broad spectrum of power and performance. Never before has a receiver line packed so much muscle, either, and with such low distortion. Never before have you had more compelling reasons to buy your first receiver or to upgrade your present one. At last "component quality" acquires true meaning in describing receivers. The Marantz 2385 Receiver, for instance, **exceeds**—in power, features and specifications—most separates on the market today, while still being packaged into a remarkably manageable size for such wallowing power and vast array of features.

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**THE MOST IMPRESSIVE COMBINATION OF QUALITY PERFORMANCE FEATURES EVER ENGINEERED INTO A RECEIVER LINE.**

Every possible technological advance that can improve performance has been designed into this new generation of Marantz receivers. For example, the 2385 includes: **Plug-in optional Dolby* FM Noise Reduction Adapter** for the lowest noise possible with FM reception. **18 dB per octave Bessel-derived high filter**—an advanced linear phase design that reduces unwanted high frequency noise—and does the job with a more natural, less colored sound be-
THE 1977 MARANTZ RECEIVER LINE OFFERS THE GREATEST CHOICE OF POWER AND LOWEST DISTORTION... RIGHT ON UP TO THE FINEST RECEIVER EVER BUILT.
CHOOSE THE MARANTZ THAT'S RIGHT FOR YOU.

<table>
<thead>
<tr>
<th>MODEL NUMBER</th>
<th>2216</th>
<th>2226</th>
<th>2236</th>
<th>2252</th>
<th>2265</th>
<th>2285</th>
<th>2330</th>
<th>2385</th>
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<tr>
<td>RATED CONTINUOUS POWER, MINIMUM RMS AT 8 OHMS, 20-20,000 HZ</td>
<td>16 Watts per channel</td>
<td>26 Watts per channel</td>
<td>38 Watts per channel</td>
<td>52 Watts per channel</td>
<td>65 Watts per channel</td>
<td>85 Watts per channel</td>
<td>130 Watts per channel</td>
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<td>TOTAL HARMONIC DISTORTION</td>
<td>0.5%</td>
<td>0.3%</td>
<td>0.1%</td>
<td>0.1%</td>
<td>0.08%</td>
<td>0.08%</td>
<td>0.07%</td>
<td>0.05%</td>
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<tr>
<td>FM SENSITIVITY (IHF USABLE)</td>
<td>13.2 dBf (2.5 µV)</td>
<td>10.8 dBf (1.9 µV)</td>
<td>10.8 dBf (1.9 µV)</td>
<td>10.8 dBf (1.9 µV)</td>
<td>10.3 dBf (1.8 µV)</td>
<td>10.3 dBf (1.8 µV)</td>
<td>9.3 dBf (1.6 µV)</td>
<td></td>
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<tr>
<td>50 dB QUIETING SENSITIVITY (STereo)</td>
<td>39.2 dBf (50 µV)</td>
<td>37.2 dBf (40 µV)</td>
<td>37.2 dBf (40 µV)</td>
<td>37.2 dBf (40 µV)</td>
<td>36 dBf (35 µV)</td>
<td>36 dBf (35 µV)</td>
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<td></td>
</tr>
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<td>FM DISTORTION (1 KHZ) MONO</td>
<td>0.4%</td>
<td>0.15%</td>
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<td>STERE0</td>
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<td>0.3%</td>
<td>0.3%</td>
<td>0.3%</td>
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<td>CAPTURE RATIO</td>
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<td>1.0 dB</td>
<td>1.0 dB</td>
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<td>1.0 dB</td>
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<td>FILTERS</td>
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<tr>
<td>FM DOLBY CAPABILITY</td>
<td>–</td>
<td>25 µS FM de-emphasis</td>
<td>25 µS FM de-emphasis</td>
<td>25 µS FM de-emphasis</td>
<td>25 µS FM de-emphasis</td>
<td>25 µS FM de-emphasis</td>
<td>25 µS FM de-emphasis</td>
<td>25 µS FM de-emphasis</td>
</tr>
</tbody>
</table>

*FM Dolby License, Inc. ©1977 Marantz Co., Inc. a subsidiary of Superscope, Inc. 7605 E. Baseline Rd. Chatsworth, CA 91311. Prices and models subject to change without notice.

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cause it eliminates the overshoot and "ringing" common to other filters. **18 dB per octave** 15 Hz sub-sonic Butterworth low filter cuts sub-sonic transients and rumble that effectively rob you of vital amplifier power. Never before has such advanced filter technology been applied to audio components or receivers.

The Marantz 2385 also offers: **2 LED peak power indicators** to continuously monitor amplifier output to instantly let you know when transients are driving the amplifier to full output. An amplifier section utilizing **full complementary symmetry direct-coupled output** in a massive **triple-paralleled** transistor array—an advanced design never before used in a receiver. The result is the highest day-in, day-out operating reliability and lowest Total Harmonic Distortion. **5-gang FM tuning capacitor**, in conjunction with **dual-gate MOS FET FM front end** ensures virtually complete rejection of spurious signals, with an IHF usable sensitivity of **1.6 microvolts**, and a 50 dB quieting sensitivity figure in stereo of **25 microvolts**—virtually the finest such specification ever obtained in a receiver—even a separate tuner.

And the 2385 includes: **Three tone controls for each channel**—bass, treble and midrange—for maximum tonal flexibility. **Selectable frequency turnover points** to adjust range of influence of each tone control. **Independent tape copy facility**, which permits dubbing from one tape deck to another while listening to yet a third signal source, such as records or FM. **Linear phase IF filters** for lowest distortion. **LED function indicators**.

But look at the exciting array of features included in virtually every receiver: **phase-locked loop**, a sophisticated circuit that maximizes stereo separation while minimizing distortion. **Dual-gate MOS FET FM front end**. **Full complementary symmetry amplifier section** plus **direct-coupling. 25 microsecond de-emphasis switch** for properly receiving Dolby FM, the new generation in stereo broadcasting. **Gyro-touch tuning** for smoothest, most accurate station selection.

See the new 1977 Marantz receiver line at your Marantz dealer now. Fantastic!
I  a little more than the three decades since U.S. Army Signal Corpsman John Mullin “captured” three German Magnetophon recorders, the tape industry has gone from birth to a vigorous maturity, and it’s worth pausing this month to try to see just what is (or may be) coming up on the tape horizon.

Six years ago this month the editors of STEREO REVIEW asked me to design—on paper—my “Dream Machine,” and it has been a source of great satisfaction to me ever since to watch one after another of its features (often much improved upon) progress from the studio or drawing board into the world’s listening rooms.

Cassettes have now, of course, come to dominate all but the high end of the tape market (in terms of both dollars and frequency response), but their position is about to be attacked on two fronts. “Microcassettes,” smaller than matchboxes and running at only 15/16 ips, have been developed, and before long you may be able to put all of Mozart’s symphonies into the glove compartment of your car—along with the machine to play them on. (The microcassette should not be confused with another miniature cassette dictation system, the minicassette, which has a variable-speed drive system that makes it unsuitable for music recording or reproduction.)

From the opposite direction, a number of manufacturers have concluded that the cassette format, with its rigid licensing restrictions, has been developed about as far as it is economical to do so, and they have decided, further, that its performance simply is not going to satisfy the critical home listener/recorder. Historically, 71/2-ips open-reel tape has been the choice for serious music recording, and attempts to sell 33 1/2 ips as “just as good for half the tape price” simply failed. But perhaps in bypassing the 33 1/2 ips speed entirely, the downward speed shift of the cassette format did go just a bit too far.

Such, at least, is the thinking behind the new elcaset format, announced some time ago and shortly to be introduced (if promises are kept) in actuality. Twice the speed and a wider track width will give the elcaset—it is still only about the size of a paperback book—significant advantages in frequency response and signal-to-noise ratio over its smaller cousin. In less important, though the convenience of no-threading operation is retained, is the fact that in the elcaset system the tape leaves the shell entirely, so the advantages of an open-reel deck (stable and precise tape drive and guidance) will be retained. And, of course, three-head operation will be the norm, not the exception.

Poor open reel! The elcaset, if successful, will knock out the little that is left of its attractiveness in the “under $1,000” market. But, for absolutely state-of-the-art professional and semiprofessional applications, open reel has been, is, and will continue to be supreme, and the continuing attention paid to its development will, as in the past, be the primary (though by no means exclusive) source of the fundamental improvements that find their way into home tape systems.

Looking at the state of the reel-to-reel art today, one of the immediately obvious areas of development is in the design of tape-drive mechanisms that will more nearly do what a transport (in its “play” mode) is supposed to: move the tape across the heads at an accurate, unvarying rate. The central point in the system, of course, is the rotating capstan, and in older designs it was driven through a series of rotating rubber wheels pressed against the shaft of an induction motor whose speed varied somewhat with the voltage of the a.c. line. That rather crude system gave way to the belt-driven capstan run by a motor synchronized to the 60-Hz frequency of the power line. And now that, in turn, is about to give way to the capstan directly driven by a d.c. motor whose relatively slow rotation is synchronized, through a phase-locked servo-control, to an ultra-stable quartz-crystal oscillator. The improvement this system affords in long-term speed accuracy is of little consequence to the home user, though it is vital to, for example, the broadcaster. But the very considerable improvement in short-term speed accuracy (elimination of wow and flutter) is an enormous benefit to recordists.

Tape-motion aberrations do not all arise from the capstan’s rotation, however. What happens at the supply reel (and, to some extent, the take-up reel as well) also affects the motion of the tape against the heads. In recent years, many recorders, both open-reel and cassette, have adopted a “dual-capstan” system that isolates the portion of the tape passing across the heads from the action of the supply reel as well as the take-up reel. That’s a step in the right direction, but it sets up two rotating capstan and pressure-roller systems, each of which can introduce wow and flutter of its own.

The next step, used in 3M’s Mincom professional recorders (and appropriated into my “Dream Machine”), has now been taken, with a variation or so, by one major manufacturer of nonprofessional recorders. This involves feeding the tape between the pinch-roller and a very large-diameter capstan, down past two heads, then around another large-diameter idle or take-up past two heads and finally squeezing it with a second pinch-roller against the opposite side of the same large-diameter capstan. This single-capstan, isolated-tape-loop system is an example I expect other manufacturers will follow in time.

With either type of closed-loop system, single or dual capstan, the isolation from the supply and take-up reels that is provided by the pinch-roller action is never complete, however. And with conventional reel motors, the supply and take-up tensions vary directly with the amount of tape on each reel—a ratio of about 3:1, and in opposite directions from each other as well. Such a system would never be extended to the reel motors themselves so that they, too, provide a constant tension regardless of the size of the tape pack. This is standard professional procedure, and it is now coming into increasing use in top-quality consumer equipment.

Once servo-control is applied to the reel motors, however, another possibility—actualized in the new professional Ampex ATR-100 series—is opened up. That is to eliminate the capstan puck rollers (themselves a source of wow) entirely, so that the large-diameter capstan doesn’t drive the tape at all, but merely governs (via servo-control) its pace. This requires that the reel-motor servo system be perfectly balanced—but with enough electronic sophistication it can be. I’ve used it, and it works magnificently—an example for top end open-reel (or elcaset) decks eventually to follow. The new Omega open-reel machine from Uher is the obvious forerunner of this trend in consumer equipment.

R e v o l u t i o n ary new developments in tape oxide could appear at any time but they won’t. Research is well on into pure metallic (non-oxide) particles that could be used to bring about a 12-dB improvement in the signal-to-noise ratio, but no one yet wants to push it. Why? For one thing, the material, when exposed to air, “self-combusts” like something out of Mission Impossible. That isn’t the real problem, however, for within the binder it would be completely stable. The real problem is what confronts all tape “improvements”: compatibility with existing recorders. The metal-particle tapes would require far fewer bias than today’s oxide, but they can supply—enough, indeed, that today’s heads would become obsolete as well. Any time you “improve” a tape—adding to its high-frequency performance or increasing its overall output—machines that worked perfectly well with the “old” tape have, at the least, to be resealed (or even torn out and entirely new heads, binder or particles) redesigned. It’ll come, but not yet. In the meantime, chrome may become a casualty to improved ferric oxides, which will themselves continue to evolve slowly.

And, on the far, far horizon, the day of digital recording is coming; I’ll talk about that more fully in another column.
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**Technical Talk**

By Julian D. Hirsch

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*TAPE RECORDER PROGRESS—1958 TO 1977: Modern tape recorders, both open-reel and cassette, perform so well that it is easy to forget how far they have come from their humble beginnings. In order to better appreciate the qualities of today's audiophile machines, I recently reviewed typical performance specifications of tape decks as they have evolved over the years. My source was the Ziff-Davis Stereo Directory & Buying Guide (and its predecessors) going back to the 1958 edition, which was the first issue in my files. This brought together in one place an on-going listing of products, specifications, and prices, year by year, with sufficient completeness and accuracy to give me the long and detailed perspective I was looking for.

It was clear first of all that the tape hobbyist of 1958 did not enjoy today's almost unlimited choice. Most machines with any pretensions to quality were actually professional or semiprofessional recorders such as the Ampex 601, Magnecord PT-6, and Premier Tapesonic. And almost all were mono machines, although stereo was beginning to appear on the scene. After paying from $400 to $600 (in 1958 dollars!), one could expect a frequency response of 50 to 10,000 Hz ±3 dB at 7½ ips and an unweighted flutter level between 0.3 and 0.1 per cent (more likely the former). The signal-to-noise ratio (S/N) was typically 45 to 50 dB in those days before Dolby and low-noise tapes.

Judging from their specifications, these open-reel machines could be put to shame by most current cassette decks (this is a somewhat misleading conclusion, since even open-reel always has enjoyed much greater "headroom" compared to cassettes). Nevertheless, there was a hint of things to come in the form of the Sony 555, a stereo recorder with in-line (rather than staggered-gap) heads selling for $525 with built-in power amplifiers, and the Tandberg Model 3 (mono) with a 30- to 16,000-Hz ±2 dB frequency response at 7½ ips, a 60-dB S/N, and only 0.1 per cent flutter.

Tape recorders designed for the ordinary consumer appeared in greater numbers the following year, with the $300 Norelco (Philips) Continental capable of 40 to 16,000 Hz (±2 dB) response at 7½ ips with only 0.2 per cent flutter and a 54-dB S/N. It could even play stereo tapes, although it recorded only in mono.

Stereo FM broadcasting had arrived by the time the 1960 Buying Guide appeared, and most manufacturers included stereo recorders in their lines. Prices changed little in those days before galloping inflation, and performance quality likewise remained nearly constant from one year to the next. The Berlant Concertone decks had a 40 to 12,000 Hz frequency response at 7½ ips, with a 45-dB S/N and 0.25 per cent flutter, for $495 in mono or $695 in stereo. Heath's first kit-type recorder, with roughly similar specifications, was only $170, however. It recorded in mono but had a stereo playback head.

The year 1961 brought a definite advance in performance, with the Norelco Continental 400 three-speed, quarter-track stereo recorder featuring a frequency response of 50 to 18,000 Hz with only 0.15 per cent flutter and a 48-dB S/N at 7½ ips (price: $400). By 1962, stereo machines had become commonplace, and the upper frequency limit had crept to the 20,000-Hz mark in such diverse machines as the Concertone 505 ($550) and Tandberg 6 ($500). In 1964, the first transistorized recorders made their appearance. Sony's Model 777 had a response of 50 to 15,000 Hz ±2 dB, a 50-dB S/N, and 0.15 per cent flutter. Otherwise, there were few changes from the 1963 listing.

Probably the most revolutionary year in home tape recording was 1965, for it marked the unheralded (and apparently inauspicious) arrival of the cassette. The $150 Norelco Carry-Corder 150 was an amusing, battery-operated novelty (I remember being quite unimpressed with it at that year's "Audio Fair") that played or recorded in mono on tape cassettes. Obviously, we all thought, nothing much was going to come of that, and no one (least of all Philips, who introduced the system) dreamed of the far-reaching effect the cassette was to have on tape recording.

In sharp contrast to their little cassette machine, Norelco also offered the Continental 401 open-reel recorder (all solid-state), which featured four speeds (15/16 to 7½ ips) for $300. At the highest speed, the 50- to 18,000-Hz response, 48-dB S/N, and 0.15 per cent flutter of the machine were typical of the better home recorders of the time.

The semiprofessional and professional recorders, such as Magnecorder and Crown, had also converted to transistors by this time, and the Crown SS700 series had specifications that would do credit to a 1977 recorder. For example, it had a frequency response of 50 to 25,000 Hz ±2 dB at 7½ ips, with a 54-dB S/N, for only $750 in mono and $900 in stereo.

By 1966, the price of the Norelco Carry-Corder had fallen to $120, and its specifications were listed as 110 to 7,000 Hz ±3 dB, with a 45-dB S/N and 0.35 per cent flutter. No other cassette machines had yet appeared. Sony's growing line of open-reel recorders was by then fully transistorized, and the tube-type Revox G-36 ($500) was delivering a 40- to

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**Tested This Month**

- Sansui TU-9900 AM/FM Tuner
- Yeaple Stereopillow "Nearphones"
- Kenwood KR-9600 AM/FM Receiver
- JBL L166 Speaker System
15,000-Hz frequency response at 7\(\frac{1}{2}\) ips, with a 50-dB S/N and 0.3 per cent flutter.

The 1967 directory did not disclose any significant advance in overall performance, although a spate of new models had appeared, from Ampex and Magnecord among others. That year the directory carried, for the first time, a separate section for “cartridge” machines (meaning anything other than open reel). Only a couple of undistinguished cassette recorders were included in this group, and they were apparently meant to compete with the Norelco Carry-Corder. The Teac brand name appeared for the first time in this directory, with several open-reel decks offered in the $500 class. Their ratings of 30 to 20,000 Hz frequency response, 50 dB S/N, and 0.12 per cent flutter gave another hint of things to come.

1968 brought a number of small mono recorders in the $100 to $150 range and stereo models priced between $150 and $200. Few members of the industry had yet decided to take the cassette seriously, and the Norelco Carry-Corder had dropped in price to $89.50. Low-to-medium-price open-reel recorders continued to proliferate in 1969, spanning a price range from $100 to $500. Even some of the less expensive units had impressive specifications: 40 to 16,000 Hz ±3 dB at 7\(\frac{1}{2}\) ips with a 50-dB S/N and 0.15 per cent flutter. At $300, one could have a frequency response extending to 20,000 Hz. In respect to price, Teac’s line expanded in both directions, starting from their $300 Model A-1200.

Although most cassette recorders were still battery portables, a couple of true component decks appeared. The Teac A-20 had a 60- to 12,000-Hz response with 0.2 per cent flutter, while the Harman-Kardon CAD-4 featured a 50- to 12,000-Hz response for $180. (The Carry-Corder was now only $65.)

1970 saw the introduction of the Dolby “B” noise-reduction system to the American market in two open-reel machines from KLH. The KLH 40 (at $650) was somewhat ahead of its time, and it was eventually recalled by the manufacturer, but its ratings of 45 to 15,000 Hz at 3\(\frac{3}{4}\) ips, with 0.1 per cent flutter and an astounding 68-dB S/N (with Dolby) were a strong hint of what the future would bring in home tape-recorder performance. The KLH 41, at about one-third the price, had almost the same performance less a number of operating features. But the cassette had still not broken out of its “low-fi” classification.

By 1971, all categories of tape-recorder performance had begun to advance noticeably. High-price open-reel machines such as the Panasonic RS796, Revox A77, and Teac A-6010 had nearly flat response to 15,000 Hz and beyond, with flutter levels of 0.08 per cent and a 55-dB S/N. Just about the same performance could be had in the $300 Tandberg 3000.
from the low- and medium-price categories, four-channel recorders began to take their places in 1974. They carried many brand names, and prices ranged from $400 to $700. A couple of very fine conventional cassette decks, the Tandberg TCD-300 and the Teac A450, appeared with prices of about $400. The Teac machine’s flutter rating of 0.07 per cent brought the cassette for the first time into direct competition with good open-reel recorders in this respect. The big news of the year, however, was the announcement of the Nakamichi 1000, the first three-head cassette recorder, with a staggering $1,100 price tag. Rivaling the best open-reel decks in most areas of performance, the Nakamichi 1000 probably served more as an indicator of the true potential of the cassette medium than as a threat to open-reel decks in the marketplace.

Prices climbed more noticeably in 1975 after years of relative stability. The open-reel market was abandoned to the high-quality stereo machines and the numerous four-channel models (which, I suspect, surprised some of their manufacturers by carving out a secure niche among low-budget, multitrack recording enterprises, assuring their survival in spite of the declining interest in four-channel recording or playback per se). The innate superiority of the open-reel format was emphasized that year by the introduction of the Sony TC152SD battery-portable Dolbyized stereo recorder for $300. Having progressed beyond the “toy” stage, cassette recording was ready to become a useful means of making field recordings away from commercial power lines and with the full fidelity of which the medium was capable. By 1976, high-quality, battery-portable, full-featured machines were offered at prices from $380 to $500 by Nakamichi, Sony, Uher, and Yamaha.

By 1976, cassette was indisputably the king, with new decks appearing at an accelerated rate. Front-loading, solenoid-operated transports and more three-head recorders made their appearance. In the better units, an upper frequency limit of 17,000 Hz or so and flutter ratings under 0.1 per cent were no longer unusual. The open-reel market was static, being limited to the high-end products still popular with those willing to pay from $700 to more than $2,000 for a machine with features and performance not available in the cassette medium.

The situation has not changed much so far in this year 1977, except that deluxe cassette recorders are offered by a number of manufacturers to sell at prices from $500 to nearly $2,000 (!). On the other hand, in the less rarified region from $200 to $400, one can find the vast majority of cassette recorders, mostly of excellent quality. A few more battery-portable stereo machines appeared this year, mostly in the $400 to $500 range; they come from JVC, Sony, Teac, and Uher.

Cassette-recorder performance ratings, which now are doubtless approaching the limitations of the format, are fairly stable. Most can reach 15,000 Hz (at reduced recording levels), and a few can exceed 20,000 Hz. The major effort has gone into improving dynamic range (by increasing recording headroom and reducing noise), so that a S/N of 65 dB or better is no longer a "pipe dream" (tape manufacturers deserve a large share of the credit for this). Flutter is commonly below 0.1 per cent, although, since it is affected by the physical construction of the cassette itself, it is difficult to specify cassette-machine flutter with the same assurance as is possible with open-reel. Open-reel machines, both stereo and four-channel, hold the same place they have occupied for several years. They are expensive (though far less so than true professional machines) and continue to appeal to the serious recordist.

Coming up on the horizon is the elcaset, a new format combining many of the features of cassettes and open-reel tape. It is too early to predict the degree of success of the elcaset, but we can expect to see several brands of machines available in the near future.

In this brief trip along the tape path we have seen extraordinary improvements in performance, to the point that today’s cassette recorders far surpass the best home open-reel recorders of a decade or two ago (though not necessarily the semipro machines of that time). Inflation has certainly had its effect on the performance/dollar ratio, but I think it is safe to say that today’s consumer gets more for his money than ever before.

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**Equipment Test Reports**

**By Hirsch-Houck Laboratories**

**Sansui TU-9900 AM/FM Stereo Tuner**

The Sansui TU-9900 AM/FM stereo tuner is part of that company’s “professional” series of audio components, and it has the all-black finish that seems to be a styling trend just now. It is large as tuners go: 18¼ inches wide, 12½ inches deep, and about 6½ inches high; it weighs about 21 pounds. Most of the front panel is devoted to a rectangular cut-out, the upper half of which contains the dial scales. Below them are two large meters, a switch that selects FM AUTO, FM MONO, or AM operation (also identified by colored lights above the switch); and a large tuning knob. A fourth light serves as a stereo FM indicator.

To the left of the dial is a vertical row of seven square pushbuttons. The ANTENNA ATTENUATOR button reduces the signal reaching the tuner’s input circuits by about 20 dB to prevent overload by very strong local transmissions. The BANDWIDTH switch provides WIDE and NARROW positions. Set to NARROW, the TU-9900 is highly selective (it is rated to have better than 90 dB alternate-channel selec-

(Continued on page 40)
Technics introduces a 321 element IC or, in plain English, more torque.

It's in the SL-1400, Technics' semi-automatic direct-drive turntable. With our latest advance: The one-chip 321 element IC with three high-capacity power transistors. Those 321 elements translate into one reason why the SL-1400 will reach the exact playing speed within 1/3 of a revolution at 33 1/3 RPM. That's torque.

But equally important, the SL-1400 has the Technics direct-drive system. The same system radio stations use. And discos abuse.

Professionals prefer our direct-drive system for the same reasons you will. Like inaudible wow and flutter (0.03% WRMS). Because with our system the platter is part of the motor. So there aren't any belts, gears or idlers to produce speed variations.

You won't hear any rumble, either. Because our DC motor introduces so little vibration into the system that rumble remains inaudible (-70dB DIN B).

And load changes in AC line voltage or frequency won't affect turntable speed. The reason: A frequency generator servo control. But direct drive isn't all the SL-1400 has going for it. For outstanding low tracking error, there's an ultra-sensitive gimbal-suspended tone arm. With an effective pivot-to-stylus length of 9/16". And all you do is place the stylus on the record and the SL-1400 does the rest. From auto cut. To auto return. To auto shutoff.

You'll also get one anti-skating adjustment for all types of styli. Variable pitch controls. An easy-view stroboscope. viscous-damped cueing. Feedback-insulated legs. As well as a hinged detachable dust cover and integral base.

So get the SL-1400. And get the precision of Technics direct drive. The convenience of semi-automatic operation. And the advantage of increased torque.

Technics by Panasonic
CIRCLE No. 47 ON READER SERVICE CARD
frequencies that might affect the Dolby system. The CALIBRATION LEVEL button replaces the automatic setting, with distortion ratings of 0.5 and 0.8 per cent, respectively, in mono and stereo. In the wide mode, the distortion ratings are dramatically improved to 0.06 and 0.08 per cent. Selectivity is reduced to 55 dB, with distortion ratings of 0.5 and 0.8 per cent, respectively, in mono and stereo. In the WIDE mode, the distortion rating is 0.8 per cent, although not mentioned in the instruction manual, it can be used to set the levels of an external Dolby decoder as well. The capture ratio measurement (always difficult to make accurately or even repeatedly) presented a challenge. Our reading was just under 1 dB, an outstanding figure. We could not measure the image rejection, which was better than the 100-dB range of our signal generator's output capability. The selectivity was close to the rated value, measuring 53.5 dB with alternate-channel (400 kHz) spacing and 57.2 dB with adjacent-channel (1 kHz) spacing. Both figures are fine for typical listening situations. The muting threshold was at 22 dB (µV). The tuner's hum level was 70 dB below 100 per cent modulation.

The frequency response with the LOW PASS FILTER disabled was almost perfectly flat, varying over a +0.2- to -0.6-dB range between 30 and 15,000 Hz. The filter had the expected effect on the frequency response, reducing the output by 0.4 dB at 12,000 Hz and by 2.5 dB at 15,000 Hz. In the process it dropped the 19-kHz pilot carrier leakage from 36 dB to an almost unmeasurable level.

Finally, the stereo channel separation was extraordinary. 60 dB or more from 60 to 600 Hz, falling to 45 dB at 5,000 Hz, 40 dB at 10,000 Hz, and 34 dB at 15,000 Hz. The midrange separation was not the greatest we have ever measured, but it exceeded the guaranteed rating of our Sound Technology 1000A FM signal generator. The S/N, stereo sensitivity, muting and stereo-switching thresholds, pilot-carrier leakage, hum, and frequency response were unchanged when we switched to the narrow-band i.f. bandwidth. Mono sensitivity actually decreased slightly, to 12.5 dB (2.3 µV). The 50-dB quieting sensitivity was unchanged, but the mono distortion at that input level increased slightly to 0.7 per cent.

As expected, the THD increased slightly at the 65-dB input level, although it was considerably better than rated and would be considered excellent in a tuner of any price. It measured 0.11 per cent in stereo and 0.13 per cent in mono. The stereo THD with out-of-phase (L - R) modulation also increased slightly to 0.36 per cent at 100 Hz, 0.44 per cent at 1,000 Hz, and 0.63 per cent at 6,000 Hz.

With a reduced i.f. bandwidth comes a degraded capture ratio, and we measured it at 2.7 dB. On the other hand, alternate-channel selectivity became unmeasurably high, exceeding 100 dB, and the adjacent-channel selectivity of 17 dB set a new record for our tuner measurements. Stereo channel separation was reduced to perfectly good, though no longer extraordinary, levels of 27 dB between mono and stereo.

(Continued on page 42)
You can hear it a hundred times—
“Cassssst off!”
—but it never fails to get you. You’re busy,
but you can’t help looking up. Then the engines surge,
the ship catches speed, and you get that feeling no
landsman ever knows.

You’re out, you’re free, and everything is
brand-new.

The Navy can train you in one of sixty career fields.
You’ll travel, make new friends, get top benefits.
For more information, fill out this coupon, see your
local Navy recruiter, or call 800-841-8000
toll free. (In Georgia, 800-342-5855.)

NAVY. IT’S NOT JUST A JOB,
IT’S AN ADVENTURE.
The output level from the Dolby FM terminals was a constant 0.42 volt at 100 per cent modulation and a 25-microsecond de-emphasis characteristic. When we pressed the calibration level button, the output level of the tone from the tuner audio terminals was exactly as specified. The antenna attenuator reduced the input signal by 22.7 dB. The muting action was ideal, with no transient noises or thumps. The flywheel tuning mechanism was smooth and friction-free. The FM dial scale was calibrated at 0.25-MHz intervals, and there was no detectable error throughout its range. The AM tuner had the usual restricted frequency response (it was, in fact, even narrower than most), with its output being down 6 dB at 60 and 2,200 Hz.

Comment. In every respect except price, the Sansui TU-9900 qualifies as a true "super tuner" (which to us signifies a tuner whose key performance characteristics are far better than the norm for high-quality tuners). Possibly a few (very few) of its measurements have been surpassed by some other tuners, but most of those units were far more expensive—several times its price, in fact. Overall, we would consider the TU-9900 to rank with the other "state-of-the-art" FM tuners we have seen, and that is quite impressive in view of its comparatively modest price.

It was not easy to find things about the TU-9900 that one might quarrel with. There was one, however—the multipath indicator. Like some others we have seen, this meter mode failed to respond to multipath levels revealed by an oscilloscope connected to the tuner's scope outputs and even by ear. The -10-dB calibration signal proved to be a most useful feature for taping programs off the air. As Sansui suggests, it can be used to set the recording gain to 10 dB below the saturation level of the recorder, whatever that level might be. Then, one can record with assurance that the maximum dynamic range will be captured on tape without fear of distortion caused by unforeseen program peaks (FM stations in this country are well regulated in respect to their peak modulation levels, though the average levels may vary depending on the use of compressors and limiters).

Overall, we found the testing of the Sansui TU-9900 to be a challenging task, and we were left with a sense of surprise and pleasure at finding a product whose performance so far surpassed both its ratings and the expected norms for a unit of its price. And, as a fringe benefit, we now have a clearer idea of the inherent limitations of our very fine FM test equipment.

Circle 105 on reader service card

Yeaple Stereopillow "Nearphones"

The Yeaple "Stereopillow" is a novel sound reproducer that combines many of the good features of both loudspeakers and headphones while eliminating some of the major disadvantages of both.

As its name suggests, the Stereopillow is in the form of a pillow, 27 inches by 20 inches by 6 inches deep. Inside it are two high-quality 4½-inch cone drivers (with 10-ounce magnets) mounted on small flat baffles and fully encased in polyurethane foam. The pillow can be placed upright behind a chair or sofa or in a nearly horizontal position against the arm of a sofa for listening in a reclining position. The listener's head is partially surrounded by the pillow, so that the drivers are located about 2 inches from the ears.

In this near-field listening location, even the small, flat baffles permit an effective frequency response down to well below 50 Hz. Since the frequency response of the drivers falls off naturally below 400 Hz and above 10,000 Hz, a passive equalization network in the pillow boosts the lows and highs to achieve a relatively uniform response at the listener's ears.

Like loudspeakers, the Stereopillow provides a relatively stable stereo image which does not shift with small movements of the listener's head (although both the sound-pressure level and the effective frequency response change rather rapidly if the ear is moved even a few inches from the drivers). Room acoustics are completely out of the listening equation. Even while listening at sound-pressure levels exceeding 90 dB, the sound level elsewhere in the room drops off rapidly with distance, to 65 dB or less at spacings of 5 feet or more, and the sound usually cannot be heard at all in an adjoining room.

The system impedance of 24 ohms makes it possible to parallel several Stereopillows for listening simultaneously, without paralleling the amplifier with a dangerously low load impedance. Only 2 volts is needed across the speaker terminals to produce a 95-dB sound-pressure level at the listener's ear, which means that the Stereopillow can be driven by even the lowest-power amplifier or receiver (it must be connected to the speaker terminals, not the headphone output).

The Yeaple Stereopillow is available with a choice of several colored or patterned cloth covers that can be unzipped and removed for cleaning. The integral 30-foot cable enters the pillow at the upper right corner, and suggestions are given for dressing the cable and using it to hold the pillow in place behind chair or sofa. Price: $79.95.

Laboratory Measurements. Evaluating the Yeaple Stereopillow required special test methods. The technique used by Yeaple to derive performance data (and by us to test the device) is to place a dummy head in a normal listening relationship to the pillow, with the latter supported in an upright position. A microphone is inserted between the "ear" of the dummy head and the surface of the pillow. With a 10,000-Hz signal applied to each driver, the microphone is carefully adjusted for maximum reading and all subsequent measurements are made in that position.

Our measured data closely matched those obtained by Yeaple. With 2 volts applied, the frequency response was within ±2 dB from about 40 to 650 Hz, and it fell about 10 dB in a "shelved" characteristic to another flat region, where it was within ±2 dB from 850 to 3,000 Hz. There was a smaller depression (about 5 dB) in the 3,000 to 7,500 Hz band, and below 500 Hz the output varied ±2 dB. Above this frequency the output rose about 8 dB and varied about ±1 dB from 7,500 to 13,000 Hz before dropping off at higher frequencies. At very low frequencies the response followed the manufacturer's claims, falling at 12 dB per octave below 50 Hz.

In its overall frequency response, the Stereopillow resembled a number of good-quality headphones we have measured. Like them, its effective response (as heard by the listener) is extremely dependent on the precise geometric relationship between the two transducers and the listener's head. Specifically, a moderate shift of the ear relative to the surface of the pillow could make a considerable change in the response at very low and very high frequencies.

The sound-pressure level (SPL) measured in our test setup at a 2-volt drive level was about 110 dB in the bass and lower mid-range.
Our concept: the cassette is a component of your sound system, not an accessory. Because a cassette, unlike its open-reel counterpart, actually becomes an integral part of your system the instant you put it in your cassette deck.

This philosophy was one of the underlying principles behind the development of TDK SA cassettes. TDK SA was the first non-chrome tape compatible with chrome bias and equalization. It gives you better high-end performance than ferric-oxide-based tape, and unlike chrome tapes, it gives you greater dynamic range at low and mid-range frequencies, with far less distortion.

But our engineers put as much emphasis on the design and construction of the SA cassette housing as they did on the SA tape inside. Our cassette shell and tape carriage system are made to the same high standards as the tape they carry. So you get the kind of jam-proof, friction-free reliability you want in every cassette we make. Judging from our sales and fan mail, you agree with our philosophy.

TDK SA cassettes offer both superior tape and precision mechanics. That's why quality tape deck manufacturers either use SA as their reference cassettes, or recommend it for their machines.* And why you'll get the best from your system by using our machine in your machine.

*Questions about specific decks will be answered upon request.
A speaker unlike any other.

Introducing the Bose 901® Series III.

In 1968, Bose introduced an unconventional loudspeaker system: the legendary Bose 901. Now, we are introducing a new speaker of revolutionary concept, design, materials, and performance: the Bose 901 Series III.

What you will hear.

You will be struck by a sense of immediacy and presence, spaciousness of sound, and accurate stereo image almost anywhere in the room. Equally startling are the realism and accuracy of the timbre of each instrument, the clarity and dynamic range of the deepest bass notes, and the precise definition of individual instruments.

Efficiency

Most dramatic, however, is the remarkable efficiency with which this level of performance is achieved: the new 901 Series III can produce the same volume of sound with a 15 watt amplifier as the original 901 with a 50 watt amplifier. This dramatic breakthrough in the basic economics of high-fidelity makes it possible to put together a high performance component system at a lower price than was previously possible, even though the 901 Series III is a more expensive speaker than its predecessor.

Technology

Spectacular performance and efficiency are the results of proven Bose design concepts and technological innovations that include the unique, injection-molded Acoustic Matrix™ enclosure and a new, ultra-high-efficiency driver.

At the same time, the 901 Series III is (as is the original 901), a Direct/Reflecting® speaker with a separate electronic equalizer.

To appreciate the spectacular performance of the Bose 901 Series III, simply ask a Bose dealer to play the 901 III in comparison to any other speaker, regardless of size or price.

For a full color 901 III brochure, write Bose, Box SR1, The Mountain, Framingham, Mass. 01701. For the nearest Bose dealer, call (800) 447-4700. In Illinois call (800) 322-4400.

The Mountain, Framingham, Mass. 01701.
100 dB in the mid-range, and 95 to 105 dB in the upper mid-range and treble. In terms of conventional loudspeaker listening, this is very loud, although the sound was below normal background-music levels a few feet away.

The distortion at 2.8 volts (equivalent to an amplifier output of 1 watt into an 8-ohm load) was in the 0.3 to 0.5 per cent range from 1,000 Hz down to 100 Hz, and it rose gradually to 2.4 per cent at 50 Hz and only 8.4 per cent at 20 Hz. At a "10-watt" drive level (8.9 volts) the distortion remained under 2.5 per cent down to 80 Hz, but it rose rapidly to 16 per cent at 50 Hz.

The speaker impedance was about 24 ohms over most of the range from 150 to 2,000 Hz, falling to 15 ohms at 20,000 Hz and with a smooth rise to 50 ohms at the bass resonance of 57 Hz. Tone bursts were reproduced faithfully throughout the entire operating frequency range of the Stereopillow.

Comment. As is the case with headphones and speakers, frequency-response measurements do not adequately describe the sound of the Yeaple Stereopillow. Most of our evaluation, therefore, was done by listening to a variety of program material.

First of all, the Stereopillow does not sound exactly like either a speaker or a headphone. With one's head firmly cradled in the pillow, the subjective frequency response resembles that of a good-quality speaker with somewhat subdued highs. The bass and middles are very powerful and smooth, although we never got the same sensation of low bass that is experienced with a speaker having a useful output down to 40 Hz or so. We suspect that this is due to the lack of stimulation of the entire body surface by very low frequencies, a problem the Stereopillow shares with headphones, which often have an excellent measured low-bass response but do not sound as powerful in the bass as speakers with much less measured output.

Also as with headphones, the front-back localization of sound is a bit uncertain with the Stereopillow. This is helped considerably by listening in a reclining position, preferably with the eyes closed. Although the user is not confined to a rigidly fixed position, there is a rapid drop of listening volume if the head is moved more than an inch or two away from the pillow surface.

No matter how loudly one plays the Stereopillow, it is easy to hear someone speaking in the same room or a telephone ringing. This is a major advantage over most headphones and speakers (some, of course, might consider it a disadvantage). Naturally, other people in the same room will hear the program, albeit at a rather low level. It will not normally interfere with conversation, but we doubt that anyone would be able to listen at high volume to the Stereopillow in the same room with another person who is listening to a different program via speakers or watching a TV program.

Our only reservation regarding the Yeaple Stereopillow does not relate to its sound, which is very good—impressively so, at times. For upright listening, the need to support the Stereopillow in a vertical plane with its lower edge approximately at shoulder level limits its use to high-back furniture such as lounge chairs. However, there is no positioning difficulty when listening while lying down. For those who can install the Stereopillow in one of its more effective positions, it offers an interesting and rather different approach to personal music listening at a price competitive with that of many medium-price headphones.
Sansui unveils its

More power. More features. Finer specs.
And all the excellence of Sansui.

A receiver is the heart of any high-fidelity system. And that’s where Sansui built its reputation.

Sansui receivers are all distinguished by a perfect integration of the tuner, amplifier, and preamplifier sections to give beautifully balanced musical reproduction; by clarity the absence of noise and truest fidelity over an extremely wide range.

MODEL 9090 DB and MODEL 8080 DB.

- Dolby Noise Reduction circuitry
- FM 25 k/sec. de-emphasis
- Two power output/Dolby calibration meters
- Two tuning meters - 20 dB muting switch
- 2 pre-amplifier outputs
- Mic-mixing with mic level control
- Triple tone controls
- Turnover switches with tone defeat and two stereo headphone jacks are exclusive to the 9090 DB.
The new 9090 DB is not only Sansui’s new top receiver. We believe it is the finest on the market. Read its description and we believe you will believe as we do. Imagine yourself at the controls of the Dolby*ized 9090 DB just as you see them, lifesize, on these pages. As you touch them in real life you will be thrilled at the beautiful way the 9090 DB responds to your every wish. You will love how the controls give you a sense of power, and how this magnificent receiver permits that instant surge, that instantaneous response you want to hear through your speakers.

The built-in Dolby* Noise Reduction System does more than correctly equalize and decode Dolby FM. With it you can make and play your own Dolby processed tapes from any source, even if your recorder lacks its own Dolby circuitry. The 9090 DB’s triple tone controls give you a choice of 2 different frequencies where the treble and bass action begins, as well as a studio-type equalizer for the vital “presence” midrange. And our easy-to-read twin power meters show you at a glance just how much power your speakers are getting.

Look at what the Model 9090 DB stereo receiver offers. Even better, listen to it for yourself at your nearest franchised Sansui dealer.

**AUDIO SECTION**

**Power Output:**
- 125 watts/channel min. RMS with both channels driven into 8 ohms from 20Hz to 20kHz, with no more than 0.1% total harmonic distortion.

**IM Distortion:**
- less than 0.1% at rated min. RMS power output (70Hz - 2kHz = 4 - 1, SMPTE method)

**Frequency Response (1 watt):**
- 10kHz to 30kHz ± 1 dB from Aux to speaker terminals

**RIAA Phono Equalization:**
- ± 0.3 db, 30Hz to 15kHz

**Phono 1, 2 Sensitivity/Impedance:**
- 2.5mV/50k ohms

**Phono 1, 2 Maximum Input Capability:**
- 180mV at kHz; less than 0.2% total harmonic distortion.

**Hum and Noise:**
- better than 80 dB (Aux, Tape Monitor)
- better than 70 dB (Phone)

**FM SECTION**

**IHF Sensitivity:**
- 9.8 dBf (1.7 µV)

**50 dB IHF Quieting Sensitivity:**
- Mono: 14 dBf (3 µV)
- Stere: 36.3 dBf (36 µV)

**Signal-to-noise ratio:**
- better than 70 dB

**Total Harmonic Distortion:**
- Mono: less than 0.2%
- Stere: less than 0.3%

**Alternate Channel Selectivity:**
- Better than 85 dB

**Spurious Response Ratio (IHF):**
- Better than 85 dB

**Stereo Separation:**
- Better than 40 dB

**Frequency Response:**
- 30Hz - 20 kHz; +0.5, -2.0 dB

A whole new world of beautiful music.

SANSUI ELECTRONICS CORP.
Woodside, New York 11377 - Gardena, California 90247
SANSUI ELECTRIC CO., LTD., Tokyo, Japan - SANSUI AUDIO EUROPE S.A., Antwerp, Belgium
in Canada Electronic Distributors
Clad in one of its optional imitation-fur coverings, the Stereopillow appears right at home propped up against the armrest of a sofa.

100 dB in the mid-range, and 95 to 105 dB in the upper mid-range and treble. In terms of conventional loudspeaker listening, this is very loud, although the sound was below normal background-music levels a few feet away.

The distortion at 2.8 volts (equivalent to an amplifier output of 1 watt into an 8-ohm load) was in the 0.3 to 0.5 per cent range from 1,000 Hz down to 100 Hz, and it rose gradually to 2.4 per cent at 50 Hz and only 8.4 per cent at 20 Hz. At a "10-watt" drive level (8.9 volts) the distortion remained under 2.5 per cent down to 80 Hz, but it rose rapidly to 16 per cent at 50 Hz.

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Our only reservation regarding the Yeaple Stereopillow does not relate to its sound, which is very good—impressively so, at times. For upright listening, the need to support the Stereopillow in a vertical plane with its lower edge approximately at shoulder level limits its use to high-back furniture such as lounge chairs. However, there is no positioning difficulty when listening while lying down. For those who can install the Stereopillow in one of its more effective positions, it offers an interesting and rather different approach to personal music listening at a price competitive with that of many medium-price headphones. Circle 106 on reader service card.

Kenwood KR-9600 AM/FM Stereo Receiver

Kenwood's new KR-9600, one of the select but steadily growing number of "super-power" receivers, is a mighty unit by any standards. Its amplifiers are rated to deliver at least 160 watts per channel into 8-ohm loads, from 20 to 20,000 Hz, with 0.08 per cent or less total harmonic distortion. Like some of Kenwood's integrated amplifiers, the KR-9600 uses an entirely separate power supply (including the power transformers) for each channel. This effectively eliminates what Kenwood calls "transient crosstalk distortion," which is described as a form of the intermodulation effect in one channel resulting from modulation of the common power-supply voltage by a powerful low-frequency signal in the other channel.

The output stages, featuring fully complementary-symmetry transistors, are directly coupled to the speakers. A fast-acting relay protects both the output devices and the speakers from damage, as well as providing a (Continued on page 52)
time delay that eliminates thumps when turning the receiver on or off. At its input, the KR-9600 is unique in having separate preamplifiers for each of the two phono inputs. The phono 1 input, which has a 2.5-millivolt sensitivity and a 250-millivolt overload rating, uses an FET input; the phono 2 preamplifier, rated at 5 millivolts sensitivity with a 500-millivolt overload rating, uses a bipolar-transistor input.

The KR-9600's tone controls consist of knobs for bass, mid-range, and treble frequencies. They can be bypassed by a defeat switch. The tone controls, like the volume control, are lightly but positively detented in steps. The receiver can control two tape controls, are lightly but positively detented in steps. The receiver can control two tape decks, with front-panel switching for recording on either machine or dubbing from either deck to the other, while monitoring the playback from either one or listening to the source.

A novel feature is the receiver's "sound injection" circuit, a variant of the microphone injection system found on some other receivers. Kenwood's system provides a fading and mixing action as the MIC LEVEL knob on the panel is rotated. It smoothly fades out the signal from the selected program source and inserts the signal from a microphone plugged into the front-panel jack. This injection action takes place only at the tape-recording outputs and does not appear in the receiver's audio outputs.

The FM tuner section of the receiver is of comparable quality, featuring two r.f. stages, a five-element tuning capacitor, an eight-element linear-phase filter, and a phase-locked-loop multiplex demodulator. A switch on the front panel converts the de-emphasis time constant from 75 to 25 microseconds for use with an external Dolby adapter.

The two tuning meters read channel center and signal strength for FM (the latter is also the AM tuning indicator). A button on the front panel converts the signal-strength meter to read FM modulation strength, from 0 to 100 per cent. In this mode, the meter has a fast response with little overshoot, and it can be used to set up recording levels on a tape deck for most effective use of the machine's dynamic range. Two other meters monitor the audio-output levels. Their logarithmic scales read from 0.1 to 200 watts, and a nearby button increases the meter sensitivity to cover a 0.01- to 3-watt range.

The Kenwood KR-9600, as might be expected, is large and heavy. Its satin-finish front panel is 22% inches wide and 6% inches high; the receiver extends about 16% inches behind the panel. All rear connectors are recessed and do not protrude beyond the case limits. A pair of rugged and attractive handles are supplied for mounting on the panel if desired (the 53-pound weight of the receiver makes this very desirable), and the overall depth of the receiver including handles is 18% inches.

The front panel has pushbutton switches for low- and high-cut filters, 20-Db audio muting, power-meter range selection, FM meter mode, 25-microsecond de-emphasis, and FM muting. The large tuning knob, which operates a very smooth flywheel mechanism, is to the right of the dial. Across the bottom of the panel are knobs for the tone controls, volume (with a concentric ring for balance), the input selector (AM, FM, PHONO 1, PHONO 2, AUX), and speaker switching for three pairs of speakers or one combination of two pairs. Lever switches control on/off, loudness (with two degrees of compensation), tone-control defeat, mode (MONO, STEREO, REVERSE), tape monitoring from either deck or the source, dubbing from either deck to the other, and the sound injection circuit. There is also a headphone jack on the panel.

In the rear of the receiver are the many input and output jacks, including preamplifier outputs and main-amplifier inputs, joined by removable jumper links. There are outputs for connection to an oscilloscope for multipath indication; the horizontal output is also intended to drive any future discrete four-channel FM decoder when and if it becomes available. There is a hinged AM ferrite-rod antenna, and terminals are provided for 75- and 300-ohm FM antennas as well as an AM wire antenna. Insulated spring clips are used for the speaker outputs, and there are DIN sockets as well as phono jacks for the tape-recorder connections. One of the three a.c. sockets is switched. Price: $750.

- Laboratory Measurements. Following the standard preconditioning period, during which the receiver became only moderately warm, the amplifier outputs clipped at 189 watts into 8 ohms, 264 watts into 4 ohms, and 115.5 watts into 16 ohms (both channels driven at 1,000 Hz).

At most power levels and frequencies, the distortion was below our residual measurement level of about 0.003 per cent. With a 1,000-Hz test signal, total harmonic distortion (THD) was less than 0.003 per cent at all levels from 10 watts up to 180 watts, reaching 0.006 per cent at 190 watts just before clipping occurred. The intermodulation distortion (IM) was between 0.015 and 0.03 per cent from 1 watt to over 190 watts. It rose somewhat at very low power levels—about 0.2 per cent at 16 milliwatts. At the rated power output and at levels of -3 and -10 dB, the THD was about 0.02 per cent at 20 Hz and less than 0.003 per cent from a couple of hundred Hz to 10,000 Hz, climbing to 0.008 per cent at 20,000 Hz.

An input of 0.038 volt at the auxiliary input or 0.6 millivolt at the phono input was needed to develop a reference power output of 10 watts. The noise level was extremely low, with respective unweighted S/N readings of 81 and 79 dB. The phono 1 input-overload point was a very high 290 millivolts. This was the more sensitive of the two inputs; the other (not checked) should have half the sensitivity and twice the overload capability.

The tone controls, as expected, could pro... (Continued on page 54)
Big as life.
SPECIFICATIONS

<table>
<thead>
<tr>
<th></th>
<th>9090 DB</th>
<th>8080 DB</th>
<th>5090 DB</th>
<th>9090 C</th>
<th>6060</th>
<th>5050</th>
</tr>
</thead>
<tbody>
<tr>
<td>Power Output Min RMS per channel, both channels driven into 6 ohms at rated Total Harmonic Distortion</td>
<td>125 watts @0.1% THD</td>
<td>85 watts @0.1% THD</td>
<td>110 watts @0.2% THD</td>
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<td>9.8 dBf</td>
<td>9.5 dBf</td>
<td>10.3 dBf</td>
<td>10.3 dBf</td>
<td>11.2 dBf</td>
</tr>
<tr>
<td>Dolby* Circuitry</td>
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<td>Yes</td>
<td>No</td>
<td>No</td>
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<tr>
<td>Twin Power Meters</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
</tr>
</tbody>
</table>

9090 and 9090 C DE, walnut veneer. All other cabinets simulated walnut grain.

MODEL 9090.
Two power output meters. Two tuning meters. Triple tone controls. Turnover switches with tone defeat. -20 dB muting switch. Mic-mixing with mic level control. Two stereo headphone jacks.

MODEL 6060.
Two tuning meters. High and low filters. Speaker selector.

MODEL 5050.
Two tuning meters. Mic-mixing with mic level control. High filter Speaker Selector.

MODEL 7070.
Two power output meters. Two tuning meters. Triple tone controls. Mic-mixing with mic level control. -20 dB muting switch. 7 position tape/play switch. Speaker selector.

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Low ‘tar’ and nicotine numbers are important to me. But I smoke for taste. That’s why I smoke Winston Lights. I get a lighter cigarette, but I still get real taste. And real pleasure. Only one cigarette gives me all that: Winston Lights.

vide a wide variety of response curves. The loudness compensation was very mild with either of the two selectable characteristics (which boosted only the low frequencies), making it one of the few we have seen that does not impart an unnatural "bassy" quality to the sound. The filters had very gradual slopes of 6 dB per octave and removed too much of the program content for our taste. Their -3 dB response frequencies were 200 and 3,600 Hz. The RIAA phono equalization was within ±1 dB from 20 to 20,000 Hz. It was affected negligibly by phono-cartridge inductance (less than 0.5 dB change up to 15,000 Hz, and only 0.5 to 1 dB at 0.34 per cent (the latter being measured with 0.75 per cent THD, and 34.5 dBf (29.2 µV) in stereo with 0.3 per cent THD. The ultimate S/N at 65 dBf (1,000 µV) was 91.5 dB in mono and 68 dB in stereo, and the respective distortion levels at that input were 0.13 and 0.34 per cent (the latter being measured with out-of-phase—or left-minus-right—modulation in accordance with the new IHF tuner standard). The capture ratio at 45 dBf (100 µV) was 1.4 dB, and AM rejection was 57 dB. The muting threshold was 8.7 dBf (1.5 µV), the same value as the stereo switching threshold. Pilot carrier leakage was -73 dB and hum was -72 dB. The effectiveness of the tuner's circuits was demonstrated by its image rejection of 102 dB (just at our measurement limit) and by the alternate- and adjacent-channel selectivities of 91 and 9.5 dB.

The FM frequency response was flat within ±0.4 dB from 30 to 13,000 Hz and down 0.7 dB at 15,000 Hz. Stereo channel separation was exceptionally uniform: 36 to 37 dB across most of the audio range, and better than 33.5 dB from 45 to 15,000 Hz. The AM frequency response was down 6 dB at 35 and 5,400 Hz for a somewhat wider response range than most receiver AM tuners exhibit. All of these figures matched Kenwood's specifications within the bounds of instrument error.

Because of the extensive metering afforded by the KR-9600, we also checked the accuracy of the meter readings. The power-output meters (referenced to 8-ohm loads) read from 15 to 50 per cent high at most levels, but this is probably adequate for their purpose. The FM deviation (modulation) meter was accurate at 100 per cent, which is the most important point, but read high by about 10 to 20 per cent at most smaller carrier deviations. This, too, is satisfactory for the intended use of the meter in setting up a tape recorder (especially since the maximum error was about 2 dB in the "safe" direction). The signal-strength meter gave useful readings at levels of a couple of microvolts and saturated at 370 microvolts, which gave a full-scale reading.

**Comment.** The Kenwood KR-9600 probably has more flexibility than most people will ever require, but such flexibility is expected of a premium-price product like this one. So far as we could determine, all of its many features worked exactly as claimed. In fact, it is such a smooth-handling and easy-to-use receiver that it can be operated, once one has overcome a sense of awe at its capabilities, as casually as any other.

The suppression of transients and other unwanted noises was so good that it was easy to forget that the amplifiers could deliver close to 200 watts per channel, which is sufficient to destroy many speakers. This attention to detail is fortunate (and surely not accidental), since pops and thumps that are a mere annoyance with lesser receivers can be disastrous with a unit such as this. In this regard, we were especially appreciative of the ideal operation of the FM muting circuit, a potential Achilles' heel in high-power music systems.

It is apparent that Kenwood has carefully matched the performance of the tuner, control-amplifier, and power-amplifier sections, utilizing each to best advantage. The tuner's performance is just shy of matching that of some of the finest separate tuners, but it is well beyond what we have come to expect in a receiver. The control amplifier is one of the quietest we have seen, and it has enough input and operating flexibility for most people, though not as much as many separate preamplifiers. The power amplifier takes second place to none we have seen in the under-200-watt-per-channel category. In fact, its distortion is literally unmeasurable without specially modified test equipment at almost any power level and frequency one will encounter in a home music system. If that is not perfection, it is certainly close to it.

Like other receivers in its power class, the Kenwood KR-9600 cannot be installed casually. It is simply too large and heavy to be stuffed into a piece of furniture (it must be adequately ventilated, since we found the temperature on the top of the cabinet to be nearly as high in normal use as during our tests). The handles on the panel are more than decorative, being the most practical way to lift or move the receiver.

When we come to the "bottom line" of value for the money, we must say that this is a very reasonably priced product for what it does (take a look at the prices of power amplifiers with comparable performance if you doubt this). If your speakers require a high-power amplifier (or can safely be used with one), the KR-9600 can give you top-quality sound in a single, handsome (albeit large) package at an affordable price.

Circle 107 on reader service card
Our flywheel is larger than regular flywheels for a 0.08% wow and flutter.

Variable pitch control to smooth out speed variations in playback.

Heat compressed super ferrite head for frequency response of 30-16,000 Hz and S/N of 62 dB with CrO2 tape.

Switchable VU and Peak meters for better recordings.

The KX-920 With cue, review and memory rewind.

STANDARD EQUIPMENT.

Some of the above features and performance specs are found in other cassette decks. But those decks cost a lot more than ours.

Now, the new Kenwood KX-920 costs less than $300," but don’t let that deceive you.

Because the KX-920 is our top-of-the-line. And the way we look at it, every top-of-the-line should have these features and the KX-920's performance.

The only option you should even think about is tape.

*Suggested resale price. Actual prices are established by Kenwood dealers.
JBL L166 Speaker

(Continued from page 54)

The port contributed to the total bass output only at very low frequencies (below 30 Hz), and the low-frequency output dropped off very rapidly in the range below 50 Hz or so. Unlike some speakers whose output rolls off at the highest frequencies, the JBL L166 had a slightly rising output above 10,000 Hz to about +5 dB at 15,000 Hz. It should be noted that these measurements (except for the low bass) reflect the actual sound-pressure level measured in a normal listening room about 12 to 15 feet from the speakers, and therefore they are representative of what actually reaches the listener’s ears in a “real world” environment.

The distortion was very low down to about 50 Hz, and surprisingly it did not change appreciably when the power input was raised from 1 watt to 10 watts (based on an 8-ohm impedance). Below 50 Hz the distortion at 1 watt was about 6 percent at 30 Hz and more rapidly below that frequency. We also measured the distortion with the drive level adjusted to maintain a 90-dB sound-pressure level (SPL) at a distance of 1 meter from the speaker grille. Down to 50 Hz it was identical to the constant-level measurement, but it increased more rapidly at lower frequencies as the drive was increased to compensate for the falling bass response. It measured 12.6 per cent at 40 Hz and could not be measured below that frequency.

The mid-range (“presence”) control had a range of +2 to −1 dB between 1,000 and 6,000 Hz, while the high-frequency (“brilliance”) control had a ±3-dB range above 2,000 Hz. The speaker impedance reached a maximum of about 60 ohms at 58 Hz and low values of 6 to 7 ohms at 25 and 125 Hz. Over most of the audio range the impedance was not far from its nominal 8-ohm rating (or somewhat higher), but it fell to just under 5 ohms at 9,000 Hz. The tone-burst response of the L166 was good throughout its range.

As expected, the L166 proved to be a very efficient speaker. Driven by 1 watt of random noise in the octave centered at 1,000 Hz, it produced an SPL of 93.5 dB at a 1-meter distance. This is about 6 dB greater than that produced by a typical acoustic suspension speaker. Putting it another way, the L166 would require about one-fourth as much amplifier power for the same listening level as a typical bookshelf speaker system.

Comment. Having listened to the JBL L166 for some time before performing any tests, we were not in the least surprised by our findings. From the first, it was evident that this was an exceptionally smooth, uncolored speaker. It gave an impression of strong bass response as a result of the slight resonance rise at 67 Hz which affects the band of frequencies from 65 to 100 Hz or so. The very low bass (under 40 Hz) is down somewhat from the midrange level, but because of the speaker’s excellent octave-to-octave frequency balance, most listeners would not be aware of any lack of very deep bass. The extreme highs are excellent indeed. They impart a sense of crispness and definition that is often lacking in otherwise good speakers. Because of the overall flatness of the speaker’s response, it feels that any particular portion of the spectrum dominates the others. The dispersion, judged subjectively, was as good as we had claimed—certainly at least as good as we have heard from any direct-radiator speaker system.

Having obtained confirmation of our initial hearing impressions through the response measurements, we expected the JBL L166 to do very well in our simulated live-vs.-recorded listening test. It did. On some of the selections, the JBL’s sound could not be distinguished from that of the “live” reference. On others there was an indefinable difference too slight to be identified precisely. All in all, the L166 is one of the more accurate speakers we have evaluated in this way.

Anyone who has a stereotyped image of JBL as a manufacturer of “rock-sound” speakers will be surprised by an exposure to the sound of the L166; it is one of the smoothest, most listenable systems we have had the pleasure of using. It is also one of the most expensive “bookshelf” size speakers you can buy. If your budget can handle it, listen carefully to the L166; even if it is beyond your means, its sound may guide you toward a less expensive speaker with some of the same fine sound qualities.

Circle 108 on reader service card

Tone-burst response of the JBL L166, shown here at (top to bottom) 100, 4,000, and 7,000 Hz, was good throughout.
If you take a creative approach to recording, you’ll appreciate the special versatility of the new Dual C 919 cassette deck. Four separate slide controls for the line-level and microphone inputs allow you to mix and record signals from disc, tape or FM with live voices and instruments. Output level controls eliminate the need to readjust your amplifier’s volume when switching programs, such as to tuner or record player. (These and additional features are shown below.)

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What about performance? The C 919 uses the highly reliable Continuous Pole/synchronous motor, tapeheads, electronics and a unidirectional version of the transport system of our new Auto/Reverse deck, which Audio magazine reported as ‘...another outstanding example of the great strides in cassette deck technology in recent years. Wow and flutter was indeed extremely low, measuring 0.065% (WRMS)...total harmonic distortion...well below the 1.5% claimed...about the fastest and smoothest [wind] we have encountered...we also found that the Dual deck was able to handle [C-120 cassettes] smoothly...A distinct feeling of quality...seems well worth the price.’

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With Sony's new PS-4300, you just sit back and enjoy the ride. Wherever the record takes you.

That's the blissful simplicity of a fully automatic turntable.

But the PS-4300 is more than purely practical. We like to think of it as a model union: combining the convenient and the complex.

It is a profoundly engineered machine, with intelligent design slashing through down to the smallest detail.

We gave brushes the brush.

The motor that powers the PS-4300 is brushless and slotless. Direct drive, if you will.

This deceptively simple construction makes for a smooth-running motor with less friction and noise than traditional DC motors. And it eliminates cogging.

What's more, this smooth-running motor is monitored by a smoothly-engineered 8-pole magnetic pick-up head. And our magnetic speed sensor works through an intricate electronic feedback system; driving the platter directly—without a jumble of belts and pulleys getting in the way.

So our torque is not a turkey, and we've got low wow and flutter and high speed stability to boot.

An electric eye. For your ear.

Hands off the PS-4300!

Our optical sensing system automatically returns the arm when your record is over.

Optical sensing is light years ahead of the conventional mechanical linkage. Eliminating the pressure and distortion you'd ordinarily get at the end of a record.

A tone-arm that's a strong arm.

Now we're not calling anyone clumsy. But there is the chance you might make a mistake and grab hold of the tone-arm while it's in motion.

That's why the PS-4300 has a tone-arm that's more than just statically balanced. It comes with a protective clutch device. (The only clutch you'll find on our fully automatic turntable.)

This latching set-up protects your arm against too much strain.

Moving from arms to feet, ours are designed to cut feedback. They're rubber-soled: suspended by cup-shaped rubber shock absorbers.

And they're adjustable, letting you level the turntable. So you might say our feet come with elevator shoes.

Our vibration-reducers are great shakes.

Sometimes the cabinet itself can vibrate—distorting what comes out of it.

Not so with the PS-4300.

Our cabinet is built out of a material with a low Q. Low Q materials hardly vibrate, and nobody watches their P's and Q's like Sony.

Even our platter has been undercoated with a damping material.

And what looks like a bad case of acne on our record mat is a series of bumps that provide an air cushion and absorb vibration.

An exercise in self-control.

You can see that we've covered just about everything when we created the PS-4300.

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And what controls they are! One-touch, LED-indicated switches for start/stop and repeat.

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CIRCLE NO. 33 ON READER SERVICE CARD

The Pop Beat

By Paulette Weiss

DIS-CONCERTING

It has become almost common practice in critical circles to measure popular music, especially rock, by visual as well as musical standards. This is hardly surprising, for it became a necessity just as soon as the trappings of burlesque, the circus sideshow, and worse began to overshadow the musical aspects of many rock acts. Showbizzy production numbers—dancing teeth, live chickens, dismembered baby dolls, and all—were essential to the candle-brief career of Alice Cooper, for example, and they are now being echoed in the bad-copy shenanigans of such successors as Kiss and Parliament/Funkadelic. And we probably haven't even seen the end of it—more televised rock concerts and the coming of large-screen TV projectors in clubs and bars can be counted on to keep the fashion going for at least a little while longer.

Meanwhile, performers whose music is good enough to seize your whole attention through the ears without any distracting visual bait are getting pretty rare. Gordon Lightfoot is one of them. A long string of recordings (his latest, "Summertime Dream," received an Honorable Mention in Stereophonic Review's Record of the Year Awards last month) attests to the unrivaling high quality of his music and his performances of it. His voice and his guitar are all this troubadour has needed since the early Sixties to command the respectful attention of his always sold-out houses. And that's all he needed the night I heard him in the newly refurbished Avery Fisher Hall at New York's Lincoln Center last November—that and a little electrified back-up group to beef up the sound of his acoustic guitar. He's a bit beefier himself these days, but then he's a whole lot looser too; he chattered comfortably with his fans between oldies such as If You Could Read My Mind and newer songs such as The Wreck of the Edmund Fitzgerald.

It is, when you sit down and think about it, surprising that such a simple kind of presentation can work at all, but then Lightfoot is an exception, his showmanship of a subtly personal kind not many can muster. We need showmanship, of course; a performance that is totally lacking in it can bore us just as quickly as one that is composed of nothing else. All other things being equal, the flick of a nicely timed blood-red spotlight just at the high point of a familiar song can be as exciting as the wonderfully unexpected new guitar riff that accompanies it.

What is needed for the best of all concert worlds is a balance between the artistic substance—in this case the music—and the effective, glamorous, yes, even gimmicky manner of its presentation. The successful artists of any time are those most skilled in attaining that balance. It is a skill that comes mostly from experience, but you needn't necessarily be as old an old-timer as, say, Bing Crosby to have picked it up. Such relative youngsters as the Who have it. So do the Stones, Wings, Elton John, and Bruce Springsteen.

Patti Smith almost has it. In a recent appearance at the Bottom Line (which she dubbed the "AM" of New York clubs, CBGB's and Max's being examples of "FM") she was gut-level powerful, easily establishing an aura of camaraderie with her tough-kid rap, moving into white-hot treatments of Jolene and Redondo Beach, and uninhibitedly using the audience's food and drink littered tables like a stripper's runway. It was theatrical and it was exciting, and had she been able to sustain that momentum and build on it from song to song it would have been devastating. Instead, she noodled around between numbers, chatted, played with the sound equipment.

(Continued on page 62)

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CONCERNING WARHORSES

A lot of people listen to warhorses, a truism made evident by a sampling of our concert programs and record catalogs. What is a warhorse? One can define the term by example. Just rattle off the first hundred or so compositions that come to your mind when someone says to you (as even some younger people are saying today): “I want to start listening to classical music.” Beethoven’s Fifth, Dvořák’s New World, Rimsky-Korsakov’s Scheherazade, Tchaikovsky’s 1812, Beethoven’s Moonlight Sonata, Grieg’s Peer Gynt, Debussy’s Clair de Lune, Ravel’s Boléro, Puccini’s “Un bel di,” Verdi’s Aïda, Mozart’s Jupiter, Schubert’s Trout, Gershwin’s Rhapsody in Blue, and so on down the line. You will find one peculiar thing about the list, however: outside of the fact that they were all composed in the two hundred years between about 1730 and 1930, the only thing that ties those hundred or so pieces together is their ubiquity. They are not all symphonies, not all orchestral, not all lyrical, not all European—and they are certainly not all masterpieces.

The point comes up because in the peculiar musical sophistication of the society in which we now live there are some people who will listen only to warhorses and others who will listen to anything except warhorses. The former attitude comes about through the misconception that anything that has become that popular must be great, and that a herd of warhorses, therefore, is a herd of thoroughbreds, a carefully considered collection of masterpieces. But that can hardly be true. No one familiar with Ravel’s music, for example, would ever choose Boléro as his greatest piece. No one conversant with Tchaikovsky’s music would ever choose the Overture 1812 as anything close to the peak of his musical achievement. And yet it is Boléro and 1812 that are the warhorses, not L’Enfant et les Sortilèges and the “Rococo” Variations.

People who never listen to warhorses do so on the grounds of definition: a warhorse, says the dictionary, is a musical composition which, from much repetition as part of the standard repertoire, has become hackneyed. Since they do not want to waste their time listening to something that is hackneyed, they, of course, avoid warhorses. Now, that may have been rational behavior back in the days when all the classical music one could hear was in a concert or operatic presentation or on the radio; you had a choice of listening or not listening, but not of listening to something else. With the number of private thousand-record collections today, though, those limitations no longer apply—and neither does the definition. For me, for instance, Schubert’s C Major String Quintet is a warhorse—I’ve heard it as often as any other piece of music—and Tchaikovsky’s 1812 is a once-in-a-decade experience.

Needless to say, I don’t consider the Schubert Quintet hackneyed, no matter how many times I hear it, and I feel just the other way about the Tchaikovsky. The question then arises: are all warhorses hackneyed or only some of them? To push the matter further, can a masterpiece ever really become hackneyed, or is a predisposition to that woeful state intrinsic in some music and brought out only by repetition?

I submit that it is the latter, and that, when it comes to defining what a “warhorse” is, the dictionary is wrong. Scheherazade, 1812, Poet and Peasant, Boléro, Les Preludes, Peter and the Wolf, The Fountains of Rome all become hackneyed through repetition because they are to a degree hackneyed at the start; their musical content is not rich enough to stand up to constant repetition. But Beethoven’s Fifth, Mozart’s Eine Kleine Nachtmusik, Schubert’s Unfinished, Debussy’s Afternoon of a Faun, Schumann’s Kinderszenen? No matter how negatively one reacts to the sound of the first few notes, no matter with what honest intensity one says, “Oh, not that again,” one is inevitably drawn into the musical experience. All these pieces may be warhorses, but some are better warhorses than others.

A warhorse is a warhorse, then, because—and only because—it is played and played and played. Its quality is not necessarily sufficient for someone to want it to be played again. One wonders, though, how it was that certain pieces became warhorses in the first place. Was it the total lack of complicating counterpoint in Scheherazade that gave rise to its popularity? Did the audience at the first performance of The Sorcerer’s Apprentice clamor for a repeat performance the following week—and every week thereafter? Was there some omnipotent imp at the premiere of The Firebird who said to himself, “This piece must be played and played and played, I will see that it happens”? Such are the little unanswerable questions of musical history—like wondering just where all those MacDonalds came from.

So, while the information is still fresh in the mind, I propose a number of pieces that, for various reasons, seem to me to qualify today as warhorses—and with these nominations I include, for posterity’s benefit, the reasons:

Richard Strauss’ Also Sprach Zarathustra, because it has made it into not one but at least two Hollywood films (can you remember the record?), at least one television commercial, and innumerable half-time band entertainments at football games where it is invariably said to represent “the future” (but?).

Hugo Alfvén’s Midsommarnatt, because, under the title of “Swedish Rhapsody” and in a drastically hacked-up form, it was a juke-box staple some years ago, and besides, it is, in its original form, probably as good a nationalistic rhapsody as anybody has written regardless of geography.

Stravinsky’s Le Sacre du Printemps, because, even disregarding its appearance many years ago in Walt Disney’s Fantasia, it is consistently represented in the catalog by at least two dozen recordings, new ones arriving as older ones are deleted, and it has even become some people’s favorite piece of music.

Joanquin Rodrigo’s Concierto de Aranjuez, because it has been recorded by every guitarist with any pretensions at all—by some of them twice—excepting only those unable to convince their record companies that what they need is another recording of it. Also because it has been played and recorded (at least in part) by Miles Davis, the Modern Jazz Quartet, Gil Evans, and other non-guitarists, making it, perhaps, the First Classical Guitar-music Crossover Hit.

Joseph Mouret’s Suite de Symphonies No. 1 (Fanfares for Trumpets . . . ), because it is heard every time Masterpiece Theater goes on or off the air, which is a lot more than it was heard in Mouret’s lifetime. and a lot for any piece to be heard.

Oft’s Corrida Barana, because it long ago left behind its original categorization as a pleasantly derivative, quixotic piece of pseudo-antiquarianism to become a public nuisance, both on and off records.
A professional shares a few of his tips on how to do it right

Any one who has gotten even slightly involved in live recording very quickly comes up with a list of questions the how-to books and audiophile friends can't seem to answer. Trial and error will ultimately provide the solutions to most of the problems, but only at the expense of far too many bad takes, wasted sessions, and maybe even some inappropriate but costly equipment. Why do your recordings sound so echoey? Or dull? Or distorted? How can you get the proper mix between voices and instruments? In short, what are you doing wrong and how do you go about doing it right?

I recently brought John Woram, a well-known recording engineer and consultant, together with a small group of amateur recordists for a question-and-answer session, and his notes were the basis for the question-and-answer exchange that follows. Certainly you won't find all your problems solved here (everyone has at least one unique question), but you may be surprised to learn how many of them are common to most beginners—particularly the very first one.

Q. How much should I expect a good recording setup to cost?

A. That depends on the type of recording you intend to do. For example, if you plan to tape the church choir or organ, you'll need only a basic stereo recorder, two microphones, and a pair of headphones that can be driven by the recorder output. Anything more than that may just confuse the issue. Make some test recordings with the microphones at various locations, listen to the playback over the headphones, make a decision about the best microphone-to-sound-source working distance, and you're ready for your first take.

A simple stereo setup such as this puts very little strain on your budget, and with a little practice it will produce excellent to superb recordings. On the other hand, if you plan to record a rock group so that it sounds like a modern studio production, you'll need something more elaborate. At a minimum, you'll probably want a four-channel recorder, a small mixing console, earphones for each member of the group, a number of microphones, and some sort of monitoring system.

At stores specializing in semiprofessional recording systems you'll find basic, "just getting started," no-frills setups for about $2,500, assuming you have at least some stereo playback equipment on hand already. But, since it's not unusual for a serious recordist to invest many more times this amount as time goes on, as his system grows in size and complexity, I'd have to say that an "adequate" recording system can cost anywhere from less than $1,000 to more than $20,000. Of course, you can go much higher than that too.

Q. Won't headphone playback monitoring be somewhat misleading compared to the usual control-room type of setup using loudspeakers?

A. Yes, but given the acoustic environment of churches and other large areas, the sound from loudspeakers may also be misleading. During playback between takes you will hear the room's "ambiance" doubled—once as it was recorded and again as the recording is being played back within the same room. Of course it would be fine if you could set up a nearby control room with loudspeakers, but in a typical case this may not be practicable. It may be easier to make a num-
Q: If you're recording in a professional studio, how do you eliminate audience noises?
A: Unfortunately, you can't. Human nature is almost sure to cause the chronic coughers to seat themselves as close to your microphones as they can get. And normally well-behaved babies, if present, are simply bound to scream during quieter passages, maybe from having just been terrified by a fortissimo. To avoid all this, you can try to get the cooperation of the group you are recording: they may agree that a pre- or post-concert performance without audience is worth the extra trouble.

Q: What kind of microphones should I buy?
A: For a basic two-microphone stereo setup, your best bet is probably a pair of unidirectional microphones. These are usually known as "cardioids" because of the characteristic heart shape of their polar patterns—the graph of their directional sensitivity.

A stereo pair of cardioid microphones are often placed quite close to each other but angled apart about 90 degrees. Since the unidirectional microphone is most sensitive to sounds originating directly in front of it, each mike favors one side of the ensemble, and a good stereo image is therefore recorded. In the case of large orchestral and/or choral groups, a carefully placed stereo pickup conveys an excellent impression of the breadth and depth of the ensemble as well as the acoustical ambiance of the room in which they are playing.

Q: If it takes so few mikes to make a good recording, why do so many of the pros set up a regular "forest" of microphones?
A: The simple two-microphone arrangement demands ideal conditions—perfect ensemble balance and excellent room acoustics. But recordings are made in the real world; ideal conditions are usually found only in magazine articles. An extra mike or two may therefore be required here and there to help bring out a section which might not otherwise get picked up on the recording. Again, maybe the acoustics of the room are less than perfect, in which case it might be preferable to put up several extra close-up mikes to pick up more of the ensemble and less of the room sound.

But, as you can see, it's very easy to wind up with an "extra" mike on just about everything. This gives the engineer lots of control over the eventual total balance, but it sacrifices stereo perspective in the process. As a general rule, it's wiser to keep your extra microphones in their boxes, using them as sparingly as possible. An obvious exception, of course, is in recording rock, where it is customary to use one or more microphones on each instrument. The reason is that stereo perspective is not nearly as important as being able to experiment with different balances and signal-processing techniques. But before you commit yourself to a dozen or so microphones on, say, the drums, be sure you know what you are sacrificing in terms of "real" sound.

Q: Are there any special rules for buying mikes that are to be used for rock recording?
A: Since the "proper" microphone for anything is almost entirely a matter of personal taste even among professionals, it's best that you do a little experimenting with different types before you buy. More often than not, once you've established rapport, a reputable dealer will let you try out various mikes before you make your final decision. Have confidence in your own ears; if you like the way a certain mike sounds on the electric guitar, that's reason enough for using it.

There are a few basics to keep in mind while you are doing your experiments, however. For example, the cardioid microphone is most sensitive to sounds coming from directly in front, and that seems to make it a good choice if you wish to focus on just one instrument within a group. But most inexpensive cardioid microphones have other characteristics that may rule them out even for that: the "proximity effect" causes low-frequency response to rise as the mike is moved closer to the instrument, and "off-axis coloration" is another hazard—sounds from surrounding areas are picked up with (at times) severely distorted frequency response. A cardioid mike that is perfectly satisfactory in other respects may nonetheless give you too much bass when it gets too close and too much off-axis coloration when it is backed off. You may get better results with an omnidirectional mike which has neither of these weaknesses. As I said, experiment.

Q: When the microphone is very close to a loud instrument won't its output be distorted in any case?
A: Not if it's a dynamic moving-coil microphone. The distortion you hear will be the result of overloading the console (or tape recorder) input with the mike's high-level signal. A condenser microphone, however, has a preamplifier built right into it, and this can possibly be overloaded by very high signal levels. Some condenser mikes have a switchable attenuator pad within to handle such levels, but if yours doesn't you'll have to back off a bit or choose a different microphone.

Q: Is there a "correct" way to set up a recording area before the musicians arrive?
A: The best rule is to follow your own musical instincts. In most cases, there is no point in separating the musicians widely to keep the sound of one instrument from "leaking" into a microphone that is meant for another. If the distance is great enough to prevent such "leaks," it is also probably great enough to keep them from playing properly together—remember that proximity is an important factor in ensemble playing. In any case, you are better off moving your mikes in closer to the musicians than moving the players away from each other.

If you are using a pair of microphones for an "overall" coverage of the sound, make sure that the outputs of any extra close-up mikes are not handled in the mixer in such a way that they conflict with the seating plan. Otherwise, the overall mikes will be telling you that the guitar, say, is somewhat left of center while the guitar’s own mike is panned way off to the right; the conflicting directional information will blur the clarity of the whole recording. Also remember that more-distant mikes will hear the program a bit later...
TAPE RECORDING...

(and with a more "echoey" quality) than the close-up ones do; if there are appreciable differences in distance, the combined outputs of the close-up and overall mikes may work to confuse or destroy the sense of space. Thus your mikes may have to be moved about quite a bit before and even during the session, and you should remember this when making your initial equipment setup. When you run your cables between mixer and mikes, plug the cable gently to the mike. That way the slack, if there is any, is near the mike stand and available for moving with a minimum of tangle.

Q. What sort of mixer should I get?

A. For a simple two-track stereo recording, none at all. Just plug the microphones directly into the tape recorder and you're ready to go. As soon as you start using more than one mike per recorded track, however, you are going to need a mixer to plug them into. Depending on your requirements (and your budget), you can spend anywhere from $100 to $100,000 (!) on a mixer. Some engineers consider the $1,000 level the "crossover point"—units below that are "mixers" and above it they are "consoles." An appropriate mixer or console should enable you to route the outputs of several microphones to any track (or tracks) on your tape recorder. For example, if you've just finished recording two guitars on track 1 and a piano on track 2, you may now flip a few switches and route one of the guitar microphones to track 3, the other guitar and the piano to track 4—and that, of course, is the beginning of "creative mixing."

Q. How do the musicians get to hear these previously recorded tracks so they can play along with them?

A. The musicians listen over headphones to whatever was recorded previously. If the material is on just one track, it may be possible simply to plug the phones into the headphone jack on the tape recorder and monitor the output of the track already recorded along with the input of the track being recorded. (It may be necessary to install a low-power amplifier between the recorder [or mixer] and headphones to provide enough signal to drive sever-}

al sets of phones.) Thus the musicians hear both the old material and the new over their headphones.

A more flexible headphone monitoring system is often called "fold-back" or "cue") is built into some consoles—the console itself regulates the headphone feed. A separate set of controls permits the engineer to mix the previously recorded program with the new material for headphone listening while the new material is simultaneously being recorded on previously unused tracks.

If your mixer lacks this facility—most of the inexpensive ones do—an alternative arrangement is often possible. Just route the previously recorded tracks to one or more of the mixer's line inputs. Then assign the related "faders" to one of the tracks that have already been recorded. Since you won't be pushing the record button for this track, the mix will not be recorded—but it can be routed to the headphone system to give the musicians a balanced combination of new and old material.

When there are several tracks of previously recorded program in the headphones, the musicians often have trouble hearing what they are doing "live." You may therefore want to assign the new live material to the headphone mix as well as to the separate tracks on which you are recording it.

Q. How do I keep the new material synchronized with what was recorded earlier?

A. Make sure your tape recorder has a track-synchronizing feature. Various companies label it differently—Sel-Sync, Simul-Sync, Self-Sync, Sync-Trak, and so forth—but the principle is the same in every case: while recording new material on an unused track, the previously recorded tracks are listened to from their corresponding gaps on the record head. As the musicians play along with what they hear, the "active" gap on the record head records the new material directly in line on the tape with the old, thereby preserving the synchronization. Later, when all the recording has been done, the tape is played back from the playback head in the usual manner.

Q. What do I do if I run out of tracks on my tape recorder before the group runs out of instruments or voices to be recorded?

A. With a bit of electronic juggling, you can record an endless succession of instruments, even on a four-channel recorder. When you've recorded three tracks' worth of information, rerecord them as a single mix on track 4. (Since the original three tracks are going to be erased immediately after, this transfer process may be done using the playback head, for all the information will be on one track and there is no need as yet to sync it with anything else.) Now you can record new material on tracks 2 and 3 while monitoring track 4 (it contains the mix of the old tracks 1, 2, and 3) in the sync mode. If you like, you can then mix new tracks 2 and 3 with track 4 and feed everything via the playback head to track 1, which will then contain a total of five tracks of information—and you are again left with three tracks to record on. You can keep doing this for as long as you can stand it—but remember that you will be accumulating more tape hiss with each transfer.

In a perhaps more likely situation, you may find you need just one or two more tracks than are available on the recorder. Let's say, for example, that the first three tracks have been recorded on your four-channel machine and you need two more. Mix tracks 1 and 2...
together and record them on track 4, this time using the sync facility so the mix will remain in sync with track 3. Tracks 1 and 2 may now be reused for a total of five recorded tracks.

Q: Aren't there any problems with bouncing tracks around in this fashion?

A: Just two. First, remember that the playback head may be used for the transfer only when all previously recorded tracks are intended to be reused. Also note that, when using the sync facility, it is usually not possible to transfer material onto an adjacent track: track 3 may be mixed with track 4 and recorded on track 1, but not on track 2. The reason for this limitation is the crosstalk within the head itself. Track 3 "hears" a little of what is being recorded on track 2, and if track 3 is being simultaneously recorded on track 2, the crosstalk results in a feedback squeal which will make the transfer impossible.

In any case, a judicious mixture of the two techniques described should give you all the tracks you are likely to need.

Q: If I record only one or two tracks at a time, do I need more than two channels of noise reduction?

A: Yes. You need one for each track on your tape recorder, plus two more if you wish to prepare two-track master tapes from your four- (or more) track original recordings. When multiple tracks have been recorded, each must be played back through its own noise-reduction channel before being mixed with the other tracks. And then, of course, two additional channels will be needed to process the mix as it goes onto the two-track machine. But, in any case, the multitrack tape may not be mixed together first and then fed to a single stereo noise-reduction system. Therefore, although you may need only one or two noise-reduction channels as you assemble your multi-track tape a track or two at a time, you'll need a full complement later for playback or mixdown work.

Q: Is it necessary to build a studio to record in?

A: If you are recording choirs, orchestras, or marching bands, there's little point in building your own studio. Your local church, school auditorium, or football field usually provides the best recording location for such groups.

Rock music, on the other hand, is more often than not recorded in a studio no bigger than most living rooms, and, if your neighbors don't object, there's no reason why you can't make excellent recordings in a living-room "studio." Since a major acoustic overhaul will cost you a fortune, you're probably better off confining your remodeling to moving a few chairs out of the way.

Q: But won't such recording be disturbed by outside noises?

A: Probably not. With close miking, it is unlikely that any microphone will hear much except the instrument it's aimed at. Of course you'll have to pause now and then for fire engines, ambulances, and low-flying planes—unless you want to work them into your aural composition. In any case, the inconvenience is more than offset by avoiding the expense of actually building a studio.

Q: What about those signal-processing add-ons that give you reverb and so forth?

A: As your recording system grows, you will want to experiment with one or more of the many signal-processing devices available. It would take a couple of columns just to list and describe very briefly all the special effects that are possible, but the most popular devices are the compressors and expanders (of the program's dynamic range), the equalizers, and the reverberation systems.

In the case of compressors, expanders, and equalizers, the signal to be processed is routed through the device, which is then adjusted to produce the desired effect. It is often wise to do your recording work first, however, and add the signal processing later when you mix the recorded tracks together to produce the master tape. Then, if it turns out that the signal-processing effect is not working out the way you expected, you can make changes or eliminate it completely. On the other hand, if you add too much compression to the guitar while it is being recorded, it is just about impossible to remove that compression later. Of course, if that guitar was being recorded with several other instruments onto one track, any processing later on would affect all the instruments on that track, so if you want a compressed guitar, compression would have to be applied at the time of recording.

When applying reverberation to an instrument or group of instruments, the sound is first balanced as desired. In addition, those instruments that require reverberation are routed to the reverberation system, whose output is then combined with the total program to produce the desired proportion of direct and reverberant sound. Many reverb systems have two outputs, and these may be fed to the left and right to produce a more natural simulation of stereo. As with compression and other forms of signal processing, artificial reverberation is usually applied during mixdown, not during the live recording session.

Q: I've got at least ten more questions—what'll I do with them?

A: Write them down and send them to Stereophonic Review. Larry Klein and Craig Stark will find good use for them in their columns.
One wonders sometimes just how great a handicap intelligence is in the pop-culture business. Too much depth would seem to disqualify one from writing for, say, People magazine, among others, not to mention any number of television programs. And it seems to be true in popular music that Elton John was giving sensible advice when he said the songs ought to be disposable. In a world of junk food, the Hostess Twinkie is going to do better than the hand-made eclair. Occasionally, when our bellies are full, we see the light and make a case for something in life beyond Sell-always seemed a little too classy for its environment.

"I've always had problems with record companies because my records don't sell. That's basically it," the younger Wainwright told me in a Greenwich Village place called the Elephant and Castle. "I've just finished my sixth album, and only one of the first five even paid for itself, to my knowledge." Of course, he's always been highly regarded by critics (his "Unrequited" album, for example, won an honorable mention in Stereo Review's Record of the Year awards for 1975), and we had this talk before because they don't sell. And you start to feel apologetic about them. It's an uncomfortable feeling."

On stage, where Wainwright thinks he's at his best, he doesn't come across as a serious intellectual. Indeed, he is not that in his songs, either; they have an anarchistic, bebop swing to them, a recurring let's-see-where-the-chips-fall attitude. But he does tend to deal with matters that apparently scare people, with feelings and thoughts and possibilities that no doubt scared him before he dealt with them. He softens this with humor, and the only problem with that is that so much of the record-buying generation regularly misses the joke. Businessmen, John Jacob Niles says, tend to laugh in the wrong places; perhaps the hard times we've been having have convinced young people they'd better be businesslike.

"A lot of the songs are serious on one level," Wainwright said. "I have these 'love' songs that depict men and women not getting along together, which can be construed as a serious matter—when people are at each other's throats. That's not funny on one level, but on another it is, and I choose to treat it that way. My experience, in my own love relationships and friendships and from observing other people, is that love is great and nice and one of the best things around, but when it's rough, it's rough. And, as John Cassavettes said, 'Otherwise, it wouldn't be worth it.' If it were easy, it would be boring.

"I use exaggeration and artistic license, and sometimes I don't even try, but basically I think the songs are true. And I feel good about that. I know that sometimes the songs make people feel uncomfortable, and that's another reason why I ham it up, to sort of buffer it. If I have a lyric like—""Slit your throat?"

"Right. Or, 'You used to say I came too early but it was you who came too late'—that can make a lot of men feel uncomfortable, because that happens a lot. It happens to me (not all the time!). But it's constructed so people automatically laugh. Luckily, when I'm on stage, I've had the ability to use other things, visual things, my face and my body. So they laugh. But it's serious and it's the truth.

"I don't want to make anyone feel terribly uncomfortable. I feel great about being able to inform and educate; that's wonderful if it happens, but basically it's entertainment. That's what I'm paid to do and that's how I basically see myself, as an entertainer."

He set out from Westchester County and the boarding schools of his youth to be an entertainer of another sort, an
actor. And, although he was taken with the coffee-house folk music of the early Sixties, he didn't write his first song, didn't try to, until 1968.

"The only two things I did in boarding school were act in school plays and be in a guitar club," he said. "When I got through that I'd pretty much decided I didn't want to go to a regular college, so I went to acting school. The drama department of what was then called Carnegie Tech in Pittsburgh. I'd formed jug bands and sung in folk clubs, but I still thought I wanted to be an actor—until I got to acting school. I really got bored with that. It was a good school, but I just wasn't interested. So I left after a year and a half. I really didn't know what I wanted to do, but by then it was Hippie Time, 1967, so I went to San Francisco and concentrated on growing my hair and taking psychedelic drugs."

The first song, written when he came back East, wasn't very good, he says, but the writing process appealed to him leading to more songs, leading to some of his originals being heard by Milt Kramer (now his manager), who signed him to a publishing contract.

Back East, he also met Kate McGarrigle, a folk singer from Montreal. She was then teamed up with guitarist Roma Baran and is now teamed up with her sister, Anna. "Kate & Anna McGarrigle" is one of those rare debut albums that had critics behaving like freshman cheerleaders.

"Every review I've read of it has been an absolute rave," Loudon said. "It's very heavy for me. My ego is doing back-somersaults. It's really a critics' favorite, and rightfully so; it's a great record." His and Kate's marriage is about six years old. They were expecting their second child quite soon when we talked. Loudon had already celebrated (?) fatherhood with such songs as Rufus Is a Tit Man.

Since many of his songs deal with the strain of real marriages, real relationships in the real world, I've been wondering what would happen if Kate's enterprise attracted the big, general audience that has eluded him. The McGarrigle album sought to coinciding with the articulate minority, the way Loudon's albums do, but the commercial potential seems to be there, and what if their second one takes off? Well, of course, facing this kind of thing and his own feelings about it is the kind of thing Wainwright does. I asked him some question attempting to get at how lonely a job that is, something phrased in my fumby way about ego-feedback.

"I'd like to think there are people out there really getting into my records," he said, "but I don't have much perspective on my albums. I just throw them out there and then don't listen to them. I could tell this new one was about finished because I was starting to hate it. I'd rather listen to Bob Marley and the Wailers.

"In a way, though," he said, "it's good to confuse them, the majority of the audience, or to shake them up, or even send them away angry. Sometimes I encounter hostility. It's interesting. I am arrogant in supposing I'm smarter than a lot of people—but one of the most obvious reasons is I play for people who are ten years younger than I am, people who are nineteen or twenty and in college. I think as you get older you get smarter. I wasn't very smart at nineteen.

"That's one of the reasons why, as I get older. I begin to realize that pop music—well, I don't have to get out of it, but I don't know how much more I can get into it. I can be for just so many colleges—and college people are very nice, you know, they're young and attractive and have lots of energy and are open to stuff, and a lot of them are really bright, nice human beings—but I think about branching out into some other area. . . .

"It makes me uncomfortable sometimes, to the point where I start to get snotty on stage, and that's bad. You can't just get snotty; that doesn't do anyone any good. It's one thing to toy with them, to use condescension and patronize them to bring about an effect. Nothing wrong with that. Marty Mull does that; he'll do the peace-sign trip and talk down to them, but he makes it so obvious that they know exactly what it is. His whole thing between songs is putting down his audience. I can do that to a certain extent, but after a while it turns in on me and becomes uncomfortable for me and uncomfortable for them. And people who do buy records and come to concerts are, by and large, between fifteen and thirty, at the outside, more like twenty-five. My audience—well, I've got to start reaching people my own age [twenty-nine], and hope to keep reaching some younger and some older. It's been neat, doing this for seven years, but it starts to wear thin."

This last may have been colored by his memory of a recent Carolina concert that had gone badly—he characterized it as "traumatic"—partly because his audience wasn't particularly inclined to listen to words ("I don't think I make it so hot with the Ripple wine crowd") and partly, he thinks, because his energy was low.

Still, it seems fair to say Wainwright is wary of the kind of life that would go with being a pop star.

"I'm infatuated with power," he said, "or fascinated by it. On one level, I can experience it. But I have this thing in me that—I don't know what it is. Power freaks me too much. It's too scary. I've resisted it to a certain degree. When I had that successful record, I didn't want to use that producer for the next one. I went to Bob Johnston and we did the next one ["Attempted Mustache"] in five days; it was a rush job and we weren't trying for singles or anything like that.

"I felt the whole success of the Dead Skunk thing freaked me. What really freaked me was I went to do this thing in a parking lot for a Skunk Festival in Little Rock, Arkansas. Mark Lindsay was the emcee, the lead singer for Paul Revere and the Raiders. That freaked me. We got met at the airport in this limousine, and we drove through the crowd in the parking lot to this place, a kind of mobile radio station they'd set up. And I went in there and the song had been number one in the area for a couple of weeks—apparently that song really took off in the South—and all these faces were pressed up against the glass, and it really made me nervous. Really made me nervous. I felt . . . uh, embarrassed. They were all young kids and they had a look that I couldn't relate to. I really like it when someone comes up after a show on a one-to-one basis and says I'm great, and then if there are sexual ramifications I get off on that. But when you get a bunch of people pressing up against you, it's different. It scares me."

What scares me is the idea I sometimes have that the Wainwrights in pop culture are an endangered species, the notion that there'll be nothing left but so-called artists willing to bore themselves if that's what it takes to make money. In the process, those types will encourage people to glance off one another and—worse still—they themselves. But confronting one's own demons, which is what Wainwright one way or another encourages, just ain't going to be a national pastime around here; I realize that. His stuff may be a little too heady to take in massive quantities, anyway. However, any time you grow tired of Twinkies . . . .

By Noel Coppage

MARCH 1977
THE GAP BETWEEN OTHER TAPES HAS

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Noise enters our private worlds from many sources, in many forms, and most of it is an unwelcome intrusion on our activities. Noise appears where we work, in the communities in which we live, even in our own kitchens. In some cases it constitutes a danger to our health; in others it is merely an annoyance. Noise that turns up in our music-reproduction systems is much more than a mere annoyance, however, for it can actually limit the ability of the system to reproduce fully all aspects of a recorded musical performance.

That is why noise—or the degree of its absence—appears as a specification for most audio components. Noise reduction has become a major concern for manufacturers; it has fostered the design of special circuits and separate components, most of them devoted to lessening the noise in tape recording. Though no one will dispute that the hum and hiss that distract us from our enjoyment of recorded music should be reduced, today there is something of a dispute concerning the extent to which this ought to be done.

A famed acoustical scientist tells a story about his experience at a school which had engaged him to correct a problem in its new library. The library had been designed with the utmost care to prevent the intrusion of outside noise. Double-glazed windows, walls with high transmission loss, the right amount of acoustic absorption, muffled ventilation ducts, and other measures had successfully brought about a very low measured noise figure in the room. Nevertheless, the librarian complained that it was too noisy. And, in fact, it was too "noisy." Every page turning, every footfall, every door opening, every deep breath, throat clearing, or cough could be heard clearly and distinctly. For, although the sound levels of these noises were low, they were significantly higher than the background noise in the room. The cure was simple: in place of the acoustically well-designed (meaning quiet) ventilation grilles, noisier ones were installed. The noise produced by the air rushing through them was a steady—and therefore unobtrusive—"shhh" sound that served to mask the intermittent discrete noises.

With the exception of ticks and pops on phonograph records, most of the noise that appears in a music-reproduction system is of this steady and (one might suppose) unobtrusive type. Yet such noise is objectionable in a music system. This is because the sounds that are masked are usually part of the music: system noise not only obscures the low-volume passages of a musical selection, but it can also cover up contrasting quiet notes in louder passages. In short, audio-system noise such as hiss can be said to "distort" the musical content.

It is the nature of masking by noise that any desired signal slightly quieter than the noise will not appear to mix with the noise, but will instead simply disappear. Does this mean that a signal that is, say, at a -40-dB level will be inaudible on a tape recorder with a modest 38-dB signal-to-noise ratio?

Factors such as playback level, listening environment, and dynamic-range compression and expansion present the recording industry with a real NOISE DILEMMA

"...compression in recorded material may be necessary because of the noise in the listening environment."

The question has unexpected complications. Most noise measurements lump all the noise over a wide frequency range into one figure. This is known as "broadband" noise. The masking effect, however, occurs in narrow frequency bands that psychoacousticians refer to as "critical bands" of hearing. The exact width of these bands in hertz varies with frequency, but they are generally wider at low frequencies and narrower as frequency increases. They also vary with other characteristics of sound, whether it is "hiss", a pure tone, an impulse such as a drum-beat, or some combination of these. Nevertheless, over most of the audio range these critical bands correspond more or less with the oft-mentioned one-third-octave bands used by acoustical engineers. Thus, while the total noise of a tape player in the 20- to 20,000-Hz frequency range might be 38 dB down from a given reference level, the noise in any given one-third-octave segment (assuming that the noise is uniform with frequency) would be about 50 dB down. The music could therefore be as much as 12 dB below the rated 38-dB signal-to-noise ratio and still be heard. Further, if the noise level varies with frequency, as it often does (some types of transistor noise increase at very low frequencies, for example), then a signal in one of the quieter noise bands might be even lower and still be audible.

Figure 1 shows that what we have been describing is the dynamic range—that is, the range between the highest and the lowest sound levels the reproduction system can handle. The highest level of sound is, of course, the point of audio-system overload; the lowest is the point at which the desired sounds will begin to be masked by system noise. And, as we have seen, even a poorly rated tape recorder can provide a dynamic range in excess of 40 dB at some frequencies.

BY DANIEL QUEEN

MARCH 1977
NOISE DILEMMA...

So far we have been discussing only the noise of—or in—the system. However, playback systems invariably find themselves operating in a physical environment which is itself acoustically noisy. The home listening room suffers from the noise of ventilation and air-conditioning systems, traffic outdoors, appliances, etc. Therefore, while the noise level in the reproduction system determines the lowest “floor” of loudness for the equipment, the noise in the listening room really establishes the lower level of audibility for the reproduced sound.

A typical suburban living room may have a mid-frequency noise level of around 20 dB SPL. If the output level of the tape recorder we have been using as an example is adjusted so that its noise is at approximately the same level as the room noise, the recorder would then be able to hit 70 dB SPL maximum, which is at about the level of semi-loud conversation. In contrast to this, the sound pressure level of a symphony orchestra measured at the front orchestra seats may run as high as 100 dB or so, and that of a rock band might run a steady 115 dB or more. If the playback controls are set to obtain a 90-dB loudness level in the living room, the noise of our tape-recorder example would then be pushed up to 40 dB SPL (or 20 dB above the 20-dB background room noise). This would be very noticeable, not to say obtrusive (see Figure 2). It is easy to see how the various noise-reduction systems now available for use in recording and playback are really vital if we are to come even close to achieving the full dynamic range possible in a reasonably quiet living room.

But what if all recordings were made to take advantage of this full range? In a fairly noisy environment—such as the interior of a moving automobile—the softest passages of music would be completely inaudible, totally masked by road noise. If the volume control is turned up to make these quiet passages audible, then when the music gets louder the sound gets too loud and/or the system overloads. A similar situation occurs if your listening room has only a couple of thicknesses of plasterboard between it and your neighbor’s. There is no way you can use the full dynamic range of your system. When you keep the volume down so the loud passages aren’t heard through the walls, the soft passages are lost in the normal background noise. So, even though technical advances have made it unnecessary to use electronic compression (reduction of dynamic range) in the commercial recording process to squeeze the music into the narrow space between the noise and the overload point, compression in the recorded material may still be necessary because of difficulties in the listening environment.

The recording industry, having developed the technology to solve the noise/dynamic-range problem, thus finds itself on the horns of a dilemma. Should it produce recordings that accurately preserve the full dynamic range of the music and then let the public buy compressors if they are needed to reproduce the music satisfactorily in a given environment? Or should they continue to provide compressed music with limited dynamic range, as is the current practice, leaving the audiophile to buy an expander to restore the lost dynamic range? Given those choices, which would you prefer?

Daniel Queen, a previous contributor to these pages, is president of Daniel Queen Associates, which does consulting and design work on audio and electroacoustic systems.

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Figure 1. The usable dynamic range of a music system is limited by a “floor” comprised of combined system and environmental noise and a “ceiling” that corresponds to the clipping point of the amplifier or the overload point of the speakers.

Figure 2. If our hypothetical tape recorder is adjusted to play back with a noise level equal to the room noise, the music is too soft. Increasing the volume for the right music level makes the noise from the tape machine obtrusively loud.
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CIRCLE NO. 2 ON READER SERVICE CARD
Tatiana Troyanos is famous for her dramatic interpretations on the operatic stage, but there is nothing particularly dramatic about the way she achieved stardom. She wasn’t an overnight sensation, obscure one day and world-famous the next, nor did she spend years on the treadmill, as Beverly Sills did, before public, press, and impresarios finally recognized her. From her days in the chorus of the original Broadway production of The Sound of Music to her triumphant Metropolitan Opera debut as Octavian in Der Rosenkavalier last March, the dark-haired, dark-eyed mezzo-soprano has made a steady climb to fame.

Her status as a leading mezzo diva was verified last fall when London Records issued a complete recording of Bizet’s Carmen in the opéra-comique version (with spoken dialogue), in which she sings the title role opposite Placido Domingo in a performance conducted by Pierre Boulez (Columbia Records), were reviewed in the Best of the Month section of recent issues of this magazine.

Carmen holds no terrors for Troyanos; she has sung it “everywhere on earth.” Her first Carmen was in English in Louisville, and she has sung it in both the French or German versions. The Martha Baird Rockefeller Foundation, which had sponsored a wild shot, but when she returned with three European-contract offers the Foundation agreed to pay for her trip.

“I was studying at Juilliard and it wasn’t working. My teacher wanted me to be a contralto; she didn’t think I could sing high notes. I wanted to study with Hans Heinz, but they wouldn’t let me, so I quit. Incidentally, that doesn’t happen any more—the school is very good now about letting you work with the teachers you want.” After a hiatus during which she worked as a secretary and waitress, Heinz became available and Tatiana went back to Juilliard to finish her schooling.

“I finally graduated, but I didn’t go to my graduation. I’d had enough of school by that time. It was embarrassing because I won an alumni scholarship and I wasn’t there to receive it.” The scholarship allowed her to continue private lessons with Heinz, who still teaches her. “There are wonderful coaches everywhere and I work on my roles with them. But for specific problems or technical matters, I go back to Hans. He opened my top, taught me musicality.” She also frequently calls him long distance when she’s “in doubt about something.”

In 1964 she auditioned for Rise Stevens for the Metropolitan National Company, and Stevens was so impressed that she suggested an audition for Rudolf Bing and the Met itself. A contract was duly offered, but it was turned down by the young mezzo because of the “nebbish” roles it involved. She sang a short season and a half with the New York City Opera, but parted from them when a promised Carmen was withdrawn. Still, Julius Rudel thought enough of her to cast her opposite Beverly Sills in Ariodante during the opening week of the Ken-
in *Cavalleria Rusticana*, and she later sang Santuzza in that opera. Among her other Hamburg roles were Eboli in *Don Carlo*, Dorabella in *Così Fan Tutte*, Giulietta in *Tales of Hoffmann*, and Poppea in Monteverdi's *L'Incoronazione di Poppea*. Unlike some impresarios who jealously guard their charges, Liebermann encouraged Troyanos to make guest appearances with other companies. He recommended her to the Aix-en-Provence festival where in 1966 she sang her first Composer in Strauss' *Ariadne auf Naxos* with Régine Crespin as Ariadne and Georges Sébastian in the pit. The reviews were raves.

Tatiana Troyanos

"Everybody is always asking when I'm going to sing soprano. I like being a mezzo—we are in a mezzo renaissance right now."

From there she went on to Vienna, Salzburg, London, Geneva, Rome, and Milan, where she sang a concert with Stanislaw Skrowaczewski at La Scala. The only major house left for Troyanos to conquer is the Paris Opera, and she is scheduled to make her debut there this year as Octavian ("If they stay open") and then to sing Didon in *Les Troyens* under the baton of Colin Davis—the first time Berlioz's opera will be presented complete in Paris.

While making her way in European opera houses she was also recording for Deutsche Grammophon, Philips, and RCA. She recently added London and Columbia to her collection of labels, and this year she is scheduled to make a recording of Purcell's *Dido and Aeneas* (her second of this work) with Raymond Leppard for Erato.

About her experience with the Metropolitan Opera, Troyanos says, "I'm glad that the first contract the Met offered me was so nothing—and that they didn't renew the offer at the time. Things do work out for the best. It was much better for me to come into the house in a role like Octavian." The critics thought so, too. *Newsweek* said: "Troyanos steals the show." The New York *Post* declared her "the star of the show . . . the most aristocratic Octavian at the Met in years."

The partnership of James Levine (music director) and John Dexter (director of production) at the Metropolitan has her full approval. "I'm all for an ensemble company; maybe it's my European training," Levine, an old friend, conducted her last summer in Mozart's *Clemenza di Tito* in Salzburg. She thinks Sextus (a trouser role) in that opera is a great one ("Those arias!"), but she doesn't blame Janet Baker for switching from Sextus to Vi- tellia in the Covent Garden production ("That's a great role, too."). Has she thought of a similar switch? "Everybody is always asking when I'm going to sing soprano. I like being a mezzo—we are in a mezzo renaissance right now.") To illustrate the point she named Baker, Yvonne Minton, Mignon Dunn, Marilyn Horne, Frederica von Stade, and Shirley Verrett.

Anticipation at the Met before her debut was high not only because of Troyanos' well-known European successes but because in the last year she had been having similar ones all over America. Sarah Caldwell's revival of Bellini's *Capuleti e i Montecchi* in Boston had the New York Times raving over Tatiana's "Callas-like intensity." Her Poppea and Adalgisa in San Francisco resulted in critical acclaim and public frenzy.

She particularly liked her San Francisco roles because they got her out of pants and into glamorous costumes. "Trouser roles suit me," she says, "because it seems that those young men are all just like me: passionate, temperamental, in love, enthusiastic. But there is also a side of me that wants to be feminine, soft, gentle, not so emotionally involved on stage." Asked if she has considered moving from Octavian to the Marschallin in *Der Rosenkavalier*, she says, "Yes, I've considered it. But I think my voice might be too dark, at least for the time being."

Thoughts of the Marschallin bring up the subject of romance. Asked about her personal life, Tatiana, who was visiting a friend in San Francisco at the time of this interview, burst into a radiant smile and said: "It's great, everything is just great!" But if she is considering marriage, she is keeping it a close secret. "It's very rare that two people in the same profession can make it work, make their relationship come first. My friends Tom and Evelyn [Stewart and Lear] are a rare example. If I couldn't have that, what they have, I wouldn't want it at all. With a career you can't always adjust to another person's needs; you have to take advantage of what is coming your way."

Despite sudden explosions of frankness and confidence, Tatiana is shy and wary with strangers and has a vulnerability that makes her seem much younger than she is, a singer in her thirties enjoying all the attendant fame and glory of stardom. She isn't interested in playing the prima donna, and her manner is down-to-earth and unpretentious. "Temper tantrums take energy," she says forthrightly. "And besides, all that star stuff is passé, old-fashioned, and silly in an American."

She admits that when things were not going her way in Hamburg, she fought for bigger parts. Yet she was willing to sing roles she isn't sure today she approves of. "When you are young and starting out, you have to take the roles they give you. I had to do Jeanne in Penderecki's *Deviils of Loudun*; it was assigned to me. But it was difficult, and the *Rosenkavalier* I was working on at the same time suffered for it. That kind of music destroys your line and now I stay away from it." She recognizes that new, innovative productions of modern operas are important for an opera house's prestige, but she warns young singers to "be very, very careful about singing in them."

Despite her strictures about modern music, she doesn't seem to be afraid to sing anything. Her repertoire runs from Poppea and Cavalli's *Rappresentatione di Anima e di Corpo* to Penderecki's *Deviils*, with stop-offs at Purcell, Stra- vinsky (Jocasta in *Oedipus Rex* was her City Opera debut role), Giuc, and various bel canto composers.

This season at the Metropolitan she is singing two roles that could hardly be more different: Amneris in *Aida* and Gräfin Geshwitz, the lesbian countess in Alban Berg's *Lulu*. When I talked with her, she had not yet sung Amneris, and she expressed some doubts about it. "It's a heavy role. The tessitura in the Judgment Scene is killing; it just might be too dramatic for me."

She needn't have worried. When she sang her first Met Amneris, Raymond Ericson in the New York *Times* said, "Hers was a freshly conceived character, sure in its details and a pleasure to watch." And discussing the Judgment Scene specifically, Speight Jenkins in the *Post* said that her "richness of tone, evenness of sound, and musical and dramatic intellect made the whole scene more than memorable." It does rather make one curious about the response to *Lulu* this month.

By Stephanie von Buchau
The tape world looks quite a bit different from the point of view of the manufacturer

Better Tape

The subject of the audiophile's persistent quest for better tapes was not ignored, however. David Monoson, consultant to Maxell, described the coating techniques used by the firm in its high-quality tapes. It all starts with a multi-stage pre-mixing process (aided by ultrasonic agitation) in which all the solvents, resins, and other chemicals are completely blended before the actual oxide particles are added. In this way, the oxide needles themselves spend less time being ground around within a ball mill before the coating is applied, so fewer of them become crushed and broken. It is these smashed, very much undersized particles whose unstable magnetic characteristics are prime contributors to hiss and print-through, and the new technique is claimed to reduce their incidence by half. Alan Lindquist of Pfizer (which, together with Hercules Powder, makes much of the "raw" ferric oxide used in tape throughout the world) expressed some doubt that particle breakage in ordinary milling was quite as significant a problem as Monoson implied, but, of course, any reduction in the number of crushed oxide needles represents an improvement when quality is the goal.

At each stage of the process, from depositing the wet "slurry" (the liquid binder materials plus the oxide particles, each of which must be completely coated by the binder) onto the base film, through the drying stage (where microwave energy can be used in addition to infra-red heating), to the final surface polishing or "calendaring," a number of highly sophisticated techniques are involved in making top grade tape. One, still in the experimental stage, particularly caught my interest. It has long been known that you can improve the signal-to-noise ratio of a tape by approximately 6 dB if, while the oxide particles are still wet and free to move about in the binder, you line them all up in the same direction by passing the tape through a powerful unidirectional magnetic field. (For audio purposes, the needles are aligned lengthwise along the tape; for quadriplex [broadcast] video application, they are set perpendicular to the tape edge). Unfortunately, however, not all the particles do line up while under the influence of the magnetic field, so the full benefit of the technique is never realized. But, according to Monoson, experimental results have shown that
By Craig Stark

if, during the alignment process, the wet tape is simultaneously subjected to ultrasonic agitation, the percentage of particles achieving proper orientation increases, giving a net improvement of between 1 and 2 dB in signal-to-noise ratio. That's hardly worth the bother for mass-market tapes, but it would mean just that much more music to the ears of audiophiles. Memorex's Bob Murashige expressed it best at breakfast one morning when he said, "You know, you hear some of these guys saying that the hi-fi market is maybe only five per cent of the machine population. But the whole thrust, the thing that's made the cassette market what it is today, has been the effort to be as good as open-reel."

* Tape in Education *

Still, the principal focus of attention in the working sessions was on non-hi-fi applications for tape, particularly in industry and education. Executive and employee training and motivational programs using tape (sometimes cassettes with workbooks or slides, sometimes video tapes) seem to be blooming like flowers in spring, requiring the support services not merely of tape duplicators, but of companies that prepare the programs, companies that package them, and even companies that make splicing-tape dispensers to attach your tape to the short leaders that come with C-0 (empty, that is) cassette housings.

One man, who said he represented "the Christian market" (gospel music and sermons, one would imagine) inquired about packaging methods that would draw customers' attention to displays of his cassettes which, he said, tended to be impulse purchases. I couldn't help smiling when, in recommending the vacuum-formed blister-pack technique, his answerer laid heavy emphasis on the fact that this form of display was the most pilfer-proof. A representative of the U.S. Selective Service told how, with a staff of only twenty-one people (and automatic equipment) they have been able to produce a million slides and fifty thousand video cassettes, to Dean Walter J. Fahey of the University of Arizona, whose Microcampus produces video tapes of college courses you can take for credit, with titles as diverse as *Women and the Novel* and *Electrical Engineering*.

* Speech Compression *

With so much emphasis on information transfer and the spoken word, it is not surprising that the hottest topics at the ITA Workshop on "New Concepts and Technology" were speech compression and the microcassette, both of which may be somewhat new to *Stereo Review* readers, but will not remain so for long. The type of "compression" we're most familiar with is amplitude compression, in which the loudness difference between a whisper and a shout is reduced. This is what gives the voices on TV commercials their peculiar force and punchiness (pushiness?), even though they seem to be delivered at normal conversational levels. But the kind of compression co-moderators Ed Hanson (North American Philips) and George Saddler (Fuji) had under discussion was time compression—something I wish I'd been able to employ on the twenty hours of tapes I brought back with me from Tucson! With this technique, ordinary speech can be speeded up (it can also be slowed down if you like) as much as the listener wants, and without any change in pitch—the "Mickey Mouse" effect that normally results from playing a tape at a higher speed than that at which it was recorded.

It has long been known that the normal person can read many times as fast as he talks, so the brain is obviously capable of processing information much more rapidly than the ear normally receives it. It would therefore be a boon to many—the blind perhaps most of all, though the interest potential is clearly broader—if speech could be speeded up without sacrificing its intelligibility. The first attempts to produce speeded-up speech used the clearly impractical method of physically editing out excessive pauses between words and syllables with a razor blade (history does not record whether the person who first undertook the task suffered early retirement to a rest home). In recent years it has become technologically possible to chop out selected bits of speech sound and join the severed portions together electronically, but it required an entire relay rack of expensive equipment to do so. (overleaf)
Now, however, the entire task of slicing speech into tiny time intervals, throwing about half of them away and rejoining the rest, plus controlling the playback speed of a recorder, can be built into two or three integrated circuits containing an "analog shift register" (more commonly called a "bucket brigade," the same sort of device used in several audiophile room-reverberation units). All this can be fitted into just about any recorder while adding only $50 or $70 to its cost.

A panelist brought such a modified machine to the Tucson sessions; we all used it, so I know it works. Research conducted by the University of Louisville indicates, further, that information retention using the speeded-up speech is actually better than when we listen at a normal speed, presumably because we find it easier to concentrate on the material. Within five minutes all of us at the table could work very comfortably at two or two and a half times normal speed, so, where information must be gained through the spoken word, this new application of contemporary technology offers a tremendous time saving.

Microcassettes

The whole history of tape after the Second World War has been one of finding ways to put more and more information on less and less tape. Daniel E. Denham of 3M noted in a luncheon address that not so long ago it took 4.5 square yards of material to record what, in cassette form, now requires only 0.6 yard. So, anyone for a half-speed cassette about the size of a small matchbox? In a word—or, perhaps, two—that's the "microcassette" or "minicassette." Though the two are similar in appearance, the Philips entry (the "mini") is—truly, this time!—intended as a dictation device. It is hub-driven, so the actual tape speed (and hence frequency response and dynamic range) depends on the relative amounts of tape on the two "reels." The Panasonic and Olympus "micro," on the other hand, is capstan driven at 15/16 ips and is, according to some pundits, already as good as regular cassettes were only a few years ago. There are those who are convinced that the microcassette will eventually drive out its "big" brother, just as cassettes themselves have supplanted open reel for all but the most critical applications. Think of it—a year's worth of music in a glove compartment!

Tape and the Law

At another of the round-table seminars, attorneys Ernest Meyers, Jules Yarnell, and Sidney Diamond, along with Thomas Valentino (whose firm supplies music and sound effects for TV commercials, industrial training programs, and the like) presented a very thorough discussion of current copyright law. At present we are operating under an amendment (effective February 15, 1972) to the 1911 act, although a new, comprehensive copyright law (S. 22) has finally ground its way through the legislative process and will take effect after January 1, 1978.

As these gentlemen were the first to confess, even the new law, which was intended to simplify matters, has a text the size of a small telephone directory—and is far harder to read.

From the perspective of the audiophile, whether under the old or the new law, several things are very clear—but the rest is so muddy that one needs an attorney to make sense of it. In the first place, the home recordist does have the legal right to make tape copies of broadcasts, and of records and tapes which he owns, for his personal and private use, assuming he has no intention of capitalizing commercially on them. This "home use" provision was written into the law, according to Mr. Yarnell, so that senators and congressmen wouldn't find themselves in the position of making their own children criminals for making cassette or eight-track copies of their own record collections (that's a joke, son). Secondly, however, it is equally clear that it is not lawful to borrow a disc from a friend to make a copy for oneself, or to make a copy of one's own disc for a friend. Obviously, as a practical matter, no one is likely to bring an action against you for an occasional minor infringement of this latter kind, but it is against the law. And, where the practice becomes flagrant, as has been the case where college students have each bought a record or tape, made several dozen copies of it, and then organized a swap session, warning letters have in fact gone out and schools have put a stop to the practice where they could.

In cases where the master tape of the work copied antedates February 15, 1972, the offense is not technically an infringement of copyright but is known as "piracy," against which almost all states now have specific statutes. As Meyers put it, piracy "would violate the common law of all states where the courts have considered the question." Further, whatever the date of the material, "home use" provisions do not permit a dentist, for example, to dub background music that he will later play in his office, for that brings the matter into the field of commercial use. Dentists, restaurateurs, and even elevators are therefore advised to deal with a music service which has obtained all rights to the recorded entertainment it purveys.

Even if you buy a record or tape, you are not free to make a commercial application of it. And if, like me, your chief recording interest lies in capturing the sound of the live performance, be sure you obtain authorization to do so, or you will be guilty of "bootlegging," which, as Meyers pointed out, "may violate state laws designed to protect artists against the misappropriation of their performances, as well as constituting an infringement of the underlying copyrighted musical work."

Prerecorded Tape

At still another round table, quality control was the focus of attention. Audio Digest has made available a cassette subscription service for the medical profession which enables doctors to use odd moments (such as time spent driving to work) to keep up with developments within their field. Having a limited market potential has made it extremely important to ensure customer satisfaction, and Audio Digest's ex-
traordinarily low return rate (0.2 per cent) was the envy of everyone who sat in on the discussion. The secret, unhappily, seems to involve not only extreme care in selecting commercial duplicators who can be relied on to keep their equipment in good condition, but in requiring them to use specific brands of tape and/or specific brands of C-0 cassette housings. Audio Digest discovered their workable combinations purely on the basis of experience, and it appeared from the discussion that their approach increases costs for the raw cassette from about a half dollar to perhaps twice that. Most of the premium tapes you and I buy are not even affordable by the typical supplier of prerecorded tapes, given the tight profit margins he must work within.

I raised the point that the complaints I get from readers aren’t usually that their prerecorded cassettes jam, or have tracks recorded on them backward, or the like; freedom from this kind of gross defect is taken for granted. My complaints center on the fact that the frequency response, distortion, and signal-to-noise ratio on prerecorded tapes—both open reel and cassette—simply don’t match those of the equivalent disc, yet the customer is expected to pay a premium for tape. Buyers very quickly become aware that they can usually make a better dub from a new disc themselves than the one they can buy in a store. Is the high-speed duplication process inherently incapable of making hi-fi copies?

Various answers issued from various quarters, but in the final analysis they all boiled down to the question of cost. Paul Lloyd of Infomics (maker of a medium-speed duplicator that operates at 10.7 times playing speed) pointed out that his equipment left the factory flat to 14,000 Hz, was 3 dB down at 15,000 Hz, rolled off sharply thereafter and added no more than 3 dB of hiss to that already on the master tape. But when the equipment got into the hands of the duplicating company, all kinds of problems could develop if it was not maintained and operated properly. In his view, keeping frequency response out to 15,000 Hz was imperative, though it might require running the copies at a slightly lower signal level (meaning a couple decibels of loss in signal-to-noise ratio) than is customary. The long-haired kids you kicked out of your stores fifteen years ago are now the heads of curricula at the colleges or they’re disc jocks; in either case they’re disc jocks; in either case they insist on that high end and they’ll listen to the music through the hiss.

Bill Lawless, whose Recortec duplicators operate at the more customary thirty-two times playing speed, was willing to settle for a top end of 12,000 Hz (arguing that only a tiny handful of consumer playback machines were flat to 15,000 Hz). In his view, hiss is the primary problem. Good high-speed duplicators (not only his own company’s) are capable of adding no more than 2 or 3 dB of noise to the master tape—a figure all of us would gladly settle for.

But why, then, isn’t that what we get? It goes back to carelessness on the part of the duplicator in adjusting levels, bias, tape tensions, etc. for the different batches of tape he uses (skilled personnel costs money), as well as involving a higher percentage of rejects and time spent in adjusting rather than running the machines. And, once again, it involves the quality control of the materials used to make the copies. Lloyd was the first to admit that automatic bias and equalization switch positions (perhaps even a calibrated control) or, alternatively, to specify more accurately that their recorders are adjusted to use any cassette bearing such a numerical rating (or color code).

The ITA is still a young organization, put together originally on less than a shoestring by the boundless energy of its founder, Larry Finley. With its first publication of industry standards, to be expanded and updated continuously, Finley eagerly observes that the ITA has reached a definite turning point. If it can keep going in this direction it will benefit not only the mass market, but “the relatively small percentage” of us finicky audiophiles as well.
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Jochum vs. Solti: Two Eminent Conductors Offer New Versions of Richard Wagner's Comic Masterpiece Die Meistersinger

With the long-awaited arrival of two new recordings of Richard Wagner's Die Meistersinger—one from Deutsche Grammophon under the baton of Eugen Jochum and another from London under Sir Georg Solti—we now have a choice of four modern versions in the current catalog. Both of the new sets offer a considerable number of attractions, as did the previous two (Angel/Karajan and Philips/Varviso), though neither shines with the blinding light of unmistakable superiority.

Solti and Jochum are both eminent Wagnerians whose general approaches to this complex opera do not always coincide, yet they remain, in their own ways, equally valid. Solti paces the music more broadly, but his overall timing is only four minutes longer than Jochum's, a negligible difference for an opera of such length. (Karajan's time falls between the two, and Varviso's is considerably shorter.) Solti's personal imprint is more noticeable than Jochum's: his leadership exhibits a characteristic dynamism; a firm, at times robust, rhythmic foundation; massive sonorities; and grand, sweeping gestures. Jochum's more intimate approach may have been influenced by the strengths and limitations inherent in the casting of his Sachs, but more about that in a moment. His leaner orchestral sound reveals fewer of the details in Wagner's complex vocal and orchestral scoring than Solti's occasionally remarkable nuances do, but this is not always detrimental. In Solti's treatment of Act II, Scene 6, for example, Sachs' Cobbler Song ("Jerum, je-

vocal strands surrounding it, while Jochum keeps it constantly, and properly, in focus. Just the same, on the basis of the orchestral performance alone, I lean toward the London set because Solti makes the festive moments decidedly more imposing and memorable, drawing magnificent playing from the Vienna Philharmonic (the Vienna horns and woodwinds are definitely superior to their Berlin counterparts), and because the London engineering gives us a wider range of dynamics and a splendid richness of low string sonorities.

Unquestionably, the most eagerly anticipated pleasure of the DG set is Dietrich Fischer-Dieskau's long-talked-about Hans Sachs, and I am happy to report that his deeply felt performance has moments of incomparable rightness. A good example is the
EUGEN JOCHUM AND PIACIDO DOMINGO: a little avuncular advice

lovely soft intoning of the phrase "Dem Vogel der heut' sang" toward the end of the Fliedermonolog, and there are other tender caressings of phrases as well as subtle infusions of wisdom, irony, humor, or dejection that denote the sensitivity of the recit—alist. But there are also distracting mannerisms: clipped, curt phrasing, overemphases and exaggerated vocal gestures, and at times a simple inability to conceal the voice's limitations of range and weight. Remarkably enough, some of Fischer-Dieskau's best singing is done in the great "Verachtet mir die Meister nicht" exhortation of the opera's finale, which perhaps was wisely recorded in the early sessions—few are the baritones who are able to retain vocal freshness after four hours of arduous singing.

After the demanding complexities of the Fischer-Dieskau interpretation, it is almost a relief to turn to the Sachs of Norman Bailey: relaxed, warm, human, unaffected, full of the traditional virtues and devoid of all irritating idiosyncrasies. But it is also, alas, devoid of what is essential here: the mellow sound of a sonorous, firm, well—equalized bass—baritone. Neither Bailey nor Fischer-Dieskau supplies that sound; in the other stereo sets only Karl Ridderbusch (Philips) approximates it.

Deutsche Grammophon's adventurous casting assigns Placido Domingo to the role of Walther, and he responds to the challenge in a manner characteristic of his musicianship and versatility. He is certainly the most opulent-sounding among the recorded Walthers, even though his notes above the staff do not ring out freely. For all his excellent efforts, however, he does not appear to be at ease with the German text. The experienced René Kollo, with his lighter sound and more careful diction, may be preferred in that respect. Unfortunately, Kollo's top range is even more restricted than Domingo's, and he is further handicapped by Solti's excessively slow tempos for both the Trial Song and the Prize Song. Domingo's best singing is in the Prize Song; my prize, therefore, goes to him.

Passing quickly over the melancholy observation that neither Catarina Ligendza (DG) nor Hannelore Bode (London) is more than an adequate Eva, let us move on to the Beckmes—sers, where the picture is more encouraging. Both versions have lyric baritones in the role, fine singers who can spin out the required high A—natural without faking and who appear as genuine contestants rather than singing clowns—Beckmesser was, after all, a master singer! A certain amount of comic characterization is lost thereby (on records, at any rate), but I applaud the idea of having a singing Beckmesser as well as the two excellent artists who do the singing (I prefer Bernd Weikl on London by a slight margin).

Both Davids are excellent lyric tenors, youthful in sound and resourceful in negotiating the considerable demands of the first act. Horst Laubenthal (DG) is virtuosic here, but Adolf Dallapozza (London) is not far behind. I find Julia Hamari (London) the better of the Magdalenes; Christa Ludwig sounds a bit maternal in the role and is at times tonally unfocused. London's Pogner, Kurt Moll, a firm and sonorous bass, is superior to DG's Peter Lagger, who handles the conversational passages smoothly but has problems with the upper part of the role's tessitura.

Gerd Nienstedt (London) brings routine strength to the delightful character Wagner created in Fritz Kothner, but Gerd Feldhoff (DG) steals the show with his enthusiastic and rich-toned singing. And if you are intrigued by the unlikely name "Werner Klumlikboldt" in the cast list, let me assure you that there is no such singer: the name masks the idea of having a Schmidt/Philips. It will seem odd, perhaps, that Carlo Maria Giulini, who makes few concerto recordings and is just about the last conductor one might associate with Liszt, conducts the two Liszt concertos in his first Deutsche Grammophon release. The combination of pianist Lazar Berman and conductor Giulini must look odd on the face of it, too, for the solo works of Liszt in which Berman has been heard on records have for the most part shown him in the role of dazzling pyrotechnist and Romantic Thunderer—not at all the sort of music—making one associates with Giulini. As it turns out, however, the combination was an inspired one: soloist and conductor are together to an incredible degree, as if each had nurtured this conception of the Liszt concertos all his life and had only now found his
ideal partner. I recall reading some musician’s comment to the effect that, while he and his friends discussed the conducting after most concerts, after a Toscanini concert they found themselves discussing the music itself: that, in essence, is the effect this uniquely compelling pair of performances leaves with the listener. What remarkable, original, imaginative, majestic, exciting, deeply poetic works these concertos are, after all, and how much extraordinarily effective writing they contain for the orchestra (No. 2 in particular) as well as the piano!

Obviously there is no conventional razzle-dazzle in these performances. The approach is expansive and unhurried, projecting a feeling of immense power confidently held in reserve and an uncommon regard on everyone’s part—every member of the orchestra is swept along in the magical Berman/Giulini mutuality—for the astonishing beauty of these scores. Every brilliant effect is made, but made within the context of an integrated whole which it somehow strengthens instead of merely ornamenting. Liszt has never, never been so well served, and neither have those who listen to him. The recording itself is just about perfect technically.

—Richard Freed

**Jackson Browne’s “Pretender” Continues His Search in Those Inner Spaces**

Jackson Browne had been in the studio for three weeks to give birth to his fourth album, “The Pretender,” when his wife Phyllis killed herself with sleeping pills. He is quoted in Rolling Stone as saying, well, yes, “The Pretender” is the story of Phyllis and himself, but adding, “I’m not sure how worthwhile my describing such a personal tale is... I think it might be more worthwhile if it weren’t taken that way.”

In fact, the album refuses to be taken just that way, and not simply because it isn’t specific about what she said and he said. It also is the story of yourself, of myself; it is about the self and the conflicts and contradictions it continually has to house. The word “story,” though, with its implication of completeness, is a little off the mark. Browne’s albums aren’t Separate Projects to be compared to one another but installments in his odyssey through his inner life, wherein perhaps reside truths about your inner life and mine as well. It is a trip he has undertaken according to old and valid wisdom: know yourself and you will know humanity.

“The Pretender” is about frustration and optimism. If you analyze the songs and put them in one column or the other, you’ll see that the undertone of optimism is not rational, that Browne’s observations turn up too much evidence that the game is fixed; the album is about the human spirit refusing to do the reasonable (rational) thing, which would be to lie down and quit. The title song, quite an extraordinary piece of work, projects an “outer” life into what would seem a logical adjustment to this world: “I’m going to be a happy idiot... And struggle for the legal tender.” But the protagonist there is

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**LISZT: Piano Concerto No. 1, in E-flat Major; Piano Concerto No. 2, in A Major. Lazar Berman (piano); Vienna Symphony Orchestra, Carlo Maria Giulini cond. Deutsche Grammophon 2530 770 $7.98; © 3300 770 $7.98.**

Jackson Browne: an undertone of non-rational optimism

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the pretender; his soul is up to something else. The Fuse, which starts the record, is also supposed to go just after The Pretender, something like the way the lead-off man bats after the pitcher and gives you hope that things will pick up again. In this song the spirit assesses its own toughness.

Browne's words in this installment are just a shade more earthy than in previous ones. His structuring of verses and his curving of melodies—while these continue, characteristically, to refer back to turns he's taken before—are just a little more conventionally "songish," a little more basic. It is at once simpler and more complicated music than that of "Late for the Sky." "The Pretender" is just as strong musically, but in a different way. Jon Landau's straightforward production and good ideas—such as having a harp plucked in ways that suggest mariachi phrasings in Linda Paloma, a song that acknowledges Mexican musical influences but can't afford to have that overwhelm what the listener perceives in it—get at the essence of Browne's thematics. I think Here Come Those Tears Again is structurally and melodically too complicated for the sense of its own words, as if Browne felt he had to write it before his subconscious had coughed up a full set of instructions. Most of the others sound as if they came to him after he had done all the difficult and painful work involved in preparing the way. Well, the truth is already there, all of it, some of it in the outside world and a lot of it in Jackson Browne and in you and me and maybe even in the other fellow who looks to us like a happy idiot. Say a prayer for all of us pretenders. —Noël Coppage

JACKSON BROWNE: The Pretender. Jackson Browne (vocals, guitar); Jeff Porcaro (drums); Leland Sklar (bass); Craig Doerge (piano); other musicians. The Fuse; Your Bright Baby Blues; Linda Paloma; Here Come Those Tears Again; The Only Child; Daddy's Tune; Sleep's Dark and Silent Gate; The Pretender. ASYLUM 7E-1079 $6.98, © ET8-1079 $7.97, © TC5-1079 $7.97.

"War Ina Babylon": Max Romeo and the Upsetters Present Music to Get Upset By

Every so often (unfortunately not often enough) an album comes along that seems to redefine a whole genre. Reggae, which has taken such a beating lately at the hands of no-talent bandwagon hoppers that it's sunk almost to the level of the cha-cha-cha in musical interest, has needed such an album. Now, suddenly and unassumingly, there appears Island's new "War Ina Babylon" by Max Romeo, and this is reggae—tender, urgent, crude, cruel, sarcastic, and powerful, truly a music to get upset by.

It is no accident, of course, that Romeo calls his group the Upsetters, for he has been in the "upset" business for some time. Max Romeo (real name Maxie Smith) was a notorious figure in English pop as far back as 1968, when he had a hit, banned by the BBC, with a song called Wet Dream. It was pushed onto the charts as a result of its popularity with the "skinheads," a strange tribe of British youths who cut their hair extra-short, wore heavy work boots, and placed themselves (often quite literally) stubbornly athwart the fashionable progress of the long-haired Beatles cult. He followed that with risible rarities as Pussy Watch Man, Wine Her Goosie, and Mini Skirt Vision. In Britain his records were considered "rude"—and I would guess they mean a little bit more by that than we do. Around 1971, however, Max cut the kidding around and got serious. During this period he wrote, among other religio-socio efforts, Let the Power Fall. It became the rallying anthem of the People's National Party in the Jamaican general elections of 1972. And for the last few years he's been working in a quasi-comic vein that gives him room to take broad swipes at just about all the social issues confronting the West Indian black man.

This album, meticulously and grittily
produced by Lee Perry (he also collaborated on several of the songs), is a fascinating glimpse into Romeo's work. His voice has a natural, taunting sweetness that is both seductive and threatening, and he uses it expertly—like a machete. In the title song he seems almost to be sending up the lyrics (about a tribal war) with his coy, teasing delivery. But as chorus builds on chorus the listener suddenly realizes he has been infiltrated in an oddly unsettling way. Uptown Babies, addressed to those who happily know nothing of the ghetto, and Stealin', about corrupt churchmen, are sung in a curious monotone that glitters somehow with resentment and anger. And Norman is a flashy dude scornfully and good-humorously dissected. In everything Romeo does there seem to be double levels of meaning, and even the sugar coatings are tainted with prussic acid. You may never grow to like Max Romeo, but if you listen you will find it hard to deny he's an authentic voice speaking in a form he intends to enrich, not merely capitalize on. —Peter Reilly

MAX ROMEO & THE UPSETTERS: War Ina Babylon. Max Romeo (vocals); orchestra. One Step Forward; Uptown Babies; Chase the Devil; War Ina Babylon; Norman; Stealin'; Tan and See; Smokey Room; Smile Out of Style. ISLAND ILPS 9392 $6.98, @ Y81-9392 $7.98, @ ZCl-9392 $7.98.

Kenny Davern and Bob Wilber: in the Bechet tradition

Soprano Summit: A Jazz Quintet Featuring Soprano Sax Duets

Unlike other jazz instruments, the soprano saxophone has had but one true master, the late Sidney Bechet. Sure, Johnny Hodges occasionally doubled on the soprano, and he did so extremely well, but it was Bechet who fully explored its potential and laid down the ground rules. Strangely neglected by other reed men in the early years of jazz, and totally bypassed by the beboppers, the soprano has found a new following—owing to John Coltrane's adoption of it in 1960—among today's avant-gardists, but rarely does one hear the instrument played in the tradition established by Bechet.

That rich vibrato sound, slithering effortlessly from bottom to top register—as it did so delightfully in the hands of Bechet—is fortunately not extinct, however, thanks to Bob Wilber and Kenny Davern. Wilber learned the instrument firsthand as a student of Bechet during the latter part of the Forties. He has, in fact, recorded with the great New Orleans master, but, having studied with Lennie Tristano as well, his horizon is wide, and he is equally at home within a more modern musical context. Davern, the younger of the two, is not as well rooted in the Bechet tradition as Wilber, but he is capable of marvelous performances and, as evidenced by Soprano Summit's first album (on World Jazz WJLP-S-5), he is the perfect partner for this sort of thing. Completing the quintet are Marty Grosz, a wonderful, steeped-in-tradition guitarist whose full-bodied acoustic sound has appeared on revival jazz records for over twenty-five years, though all too infrequently; bassist George Duvivier, one of the most respected rhythm men around; and drummer Fred Stoll, about whom I know nothing except that he fits nicely into the tradition of things here.

As was the case on this group's first album, the program is a delightful mixture of tunes associated with Bechet, original material, and an early Ellington item. Except for a rather straight—and, thankfully, brief—version of Danny Boy, the album is a joy from beginning to end. It takes its title from Chalumeau Blue, a Wilber original featuring two clarinets played, appropriately enough, in the lower register (the chalumeau was a forerunner of the clarinet, and the name is used to denote the lowest register of modern clarinets); the deep, reedy sound is one of the most beautiful around. Also beautiful, in its simplicity, is Debut, a Wilber/Grosz duet featuring the former's first venture on the alto saxophone. But it is on soprano that Wilber really shines, and for pure foot-stomping value the zesty, scorching Nagasaki is hard to beat; it is the opening track of an album that is revivalist, to be sure, but far from imitative. —Chris Albertson

Soprano Summit: Chalumeau Blue. Bob Wilber (clarinet, soprano and alto saxophones); Kenny Davern (clarinet, soprano saxophone); Marty Grosz (guitar, banjo); George Duvivier (bass); Fred Stoll (drums). Nagasaki; Chalumeau Blue; Black and Tan Fantasy; Grenadilla Stomp; Danny Boy, Everybody Loves My Baby; Linger Awhile; Slightly Under the Weather; Wake Up Childen; Of Miss; Debut; Some of These Days. CHIAROSCURO CR 148 $6.98.
ALESSI. Billy Alessi, Bobby Alessi (vocals); instrumental accompaniment. Do You Feel It?; You Can Have It Back; I Was So Sure; Big Deal (Live Without You); and six others. ARCHIVE OF FOLK SONGS. These are not the original recordings of Berry's best and most famous numbers; they are re-creations made around 1965 after Berry left the Chess label and signed with Mercury Records, which wanted a "greatest hits" album as catalog product to compete against the Chess packages.

The reprises lack the x factor, the chemical reaction of the originals. C. C. Rider and Ramblin' Rose, included here as filler, were never Berry hits. Rose is a rather bland reading of Nat King Cole's original version, while Rider, a cut from a live album released on Mercury in the late 1960's, is notable for the incompetence of the backing group. Poor performance and a lack of imaginativeness dictate the original, which is far more interesting. The Chess packages of Berry's originals are available in some stores, although the last, and avoid this sorry collection of an incoherent product.

ELVIN BISHOP: Hometown Boy Makes Good! Elvin Bishop Band (vocals and instruments). Sugar Dumplin'; Sidelines; Twist & Shout; Yes Sir; Spend Some Time; and five others. CAPRICE CP 0176 $6.98, © M 88176 $7.97, © M 50176 $7.97.

Performance: Pointless craftsmanship
Recording: Ditto

Here's a well-made piece of fluff, which is one of the things the music industry is trying to teach you to want these days, something like the way the automobile industry once taught you to want tail fins. There's not a song here that amounts to a hill of beans, except for Twist & Shout, which is shoehorned and pounded into a Caribbean arrangement that doesn't amount to a hill of beans. Anyway, there's so much shouting going on everywhere—practically all the vocals and instrumental shouts to the rhythm section, which doesn't belong there. The songwriting is ragged. Given a choice, I'd rather have it the other way around.

JACKSON BROWNE: The Pretender (see Best of the Month, page 91)

CHUCK BERRY: Chuck Berry's Greatest Hits. Chuck Berry (vocals, guitar); instrumental accompaniment. Roll Over Beethoven; Johnny B. Goode; Sweet Little Sixteen; Maybellene; and six others. ARCHIVE OF FOLK SONGS. These are not the original recordings of Berry's best and most famous numbers; they are re-creations made around 1965 after Berry left the Chess label and signed with Mercury Records, which wanted a "greatest hits" album as catalog product to compete against the Chess packages.

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JIMMY CLIFF: In Concert—The Best of Jimmy Cliff. Jimmy Cliff (vocals); other musicians. You Can Get It If You Really Want; Vietnam; Fountain of Life; Many Rivers to Cross; Wonderful World; Beautiful People; and five others. REPRISE MS 2256 $6.98, © M 882256 $6.98, © MS 2256 $6.98.

Performance: Fair
Recording: Dank

There are two traditional critical lines on Jimmy Cliff, neither of which I buy. The first is that, like Toots Hibbert, Jimmy is an Otis

Explanation of symbols:
- = reel-to-reel stereo tape
- = eight-track stereo cartridge
- = stereo cassette
- = quadraphonic disc
- = reel-to-reel quadraphonic tape
- = eight-track quadraphonic tape

Monophonic recordings are indicated by the symbol ©
Reddy, which strikes me as downright weird. Jimmy's high, pure voice is far more reminiscent of Sam Cooke or Clyde McPhatter—he's a crooner rather than a belter. The second is that he hasn't written a decent song in years, which is unfair, but at least I can understand the basis for it. Although there are indeed some marvelous things scattered across the albums he's made since The Harder They Come made him a star, his early songs were just so good, and their impact on an American audience hearing them for the first time all at once was so overwhelming, that it's made it difficult for his admittedly less consistent recent stuff to get the fair hearning it deserves.

At any rate, a live "greatest hits" collection of songs covering the whole of his career would seem to be a good way for Jimmy to establish some album credibility now that reggae is a viable commercial commodity in this country. Unfortunately, "In Concert" isn't going to help him very much, and I can tell you why in two words: Andrew Oldham. Oldham is a great hustler, but despite his string of successes with the Stones he was always a lousy producer, and here he has absolutely outdone himself. The album sounds alarmingly like the Stones' "Got Live If You Want It," which up till now had the distinction of being the most poorly recorded live album in history; it seems not to have been mixed at all, and if I did not know for an absolute certainty that it was actually done in front of an audience, I would swear that Oldham had dubbed the crowd in—it sounds that unreal.

The bottom line on all this is get The Har-der They Come soundtrack immediately if you don't already own a copy, hunt around for Jimmy's 1968 A&M album, and wish him a lot better luck next time. You can also ponder the question of whether Bob Marley's "Rasta-man Vibration" made the Top Ten over here because of its musical content or because of Marley's outlaw reputation, and hope that Oldham doesn't secretly harbor a desire to remodel Jimmy into a Jamaican Mick Jagger.

S.S.

BYRON KEITH DAUGHERTY: Let My Heart Be My Home. Byron Keith Daugherty (vocals and guitar); orchestra. Cry for Mary; Valihla; I'm Leaving You; Evil Woman; Woman for All Seasons; and five others. FANTASY P-9815 $6.98.

Performance: Good
Recording: Good

Daugherty's voice has a warm, empathetic quality reminiscent of Don McLean, and his singing and guitar playing are extremely agreeable. He sounds intelligent enough, but his lyrics, with their raindrop, snowflake, flower-by-the-wayside, placebo messages, are clichés long ago worn to the nub by others. The title song, for instance, is an essay in self-pity that is maudlin to the point of embarrass-ment. His Woman for All Seasons makes his morning coffee and soothes his furrowed brow with all the assured dexterity of Julia Child rolling out pie dough. As a performer, though, Daugherty's quite good, and he maintains the way that even in this sea of dross one would be nice to hear him in less soulful material.

P.R.

DIRTY ANGELS: Kiss Tomorrow Goodbye. Dirty Angels (vocals and instrumental). Tell Me, Who Does She Do; One Time Woman; Bad Love; Alley Cat; and four others. SUNTEKPS 2020 $6.98, © 8305 2020H $7.95, © 5305 2020H $7.95.

Performance: Incompetent
Recording: Competent

This is a feeble kid band singing watery pop material. The group tries to growl and act tough, but it all comes out sounding like puppy yips and yelps. The photographs on the album cover show two members of the group doing their best to look like Mick Jagger did twelve years ago (are they possibly wearing padded lips?). There isn't much a record pro-ducer can do with this kind of group, and the producer here has done as little as possible.

J.V.

ENGLAND DAN AND JOHN FORD COLEY: I Hear the Music. England Dan (vocals, gui-tar); John Ford Coley (vocals, guitar, piano); Jim Gordon (drums); Max Bennett (bass); other musicians. Used to You; Tell Her Hello; New Jersey; Idolizer; Mud and Stone; and five others. A&M SP-4613 $6.98, © 8T-4613 $7.98, © CS-4613 $7.98.

Performance: Pleasant pap
Recording: Very good

Four of these songs date from 1971 and are here reissued from the debut England Dan and John Ford Coley album, which was on A&M and is out of print. The remainder were copyrighted in 1973, I don't know when they were recorded. The first is a "live ever" album containing the hit I'd Really Like to See You Tonight is newer stuff on the Big Tree label. This isn't England Dan and John Ford Coley up to date, but it is a well-produced album that doesn't represent them too badly. They come off pleasant and bland, the same way they still do: the latest thing in citybobbies being almost indistinguishable from the next-to-latest, and so on, clear back to the Kingston Trio. So be it; there are worse things than helping keep the acoustic-guitar market going, and this kind of act does invariably im-prove AM radio (so would three minutes of si-lence every so often, but we can’t get that). There are also worse qualities than blandness, as your local loudmouth jock and his mostly obnoxious records constantly demonstrate.

N.C.

KINKY FRIEDMAN: Lasso from El Paso. Kinky Friedman (vocals and guitar); Eric Clapton (dobro); Rob Stoner (bass); Howie Wyeth (drums); other musicians. Soid Ameri-can; Twinkle; Ahab the Arab; Catfish, Oli-

Melanie's Back

She's been away for two years to be with her kids (let's not feel too sorry for someone who can afford to do that), and she's back with a penetrating and courageously sentiment-al lines and with a richness of melody and atmos-mphere that may remind you of what you took to music for in the first place. The album—partly because echoes of the music hall are just naturally a part of Melanie—seems to have connections to the pop-music past, but they are not there for gimmicky or exploitative purposes; it's just the way she is, and it is her voice today.

The best song in the album, one of the best songs of the year in fact, is Photograph, which says more (and says it better) about the longing for The Way We Were than did the movie by that name. Melanie is an unrecon-structed romantic, bless her heart, and she hasn't gone against her own grain to mollify her old detractors. Quite the opposite: the album projects intelligence but in a cryptic way; Melanie won't mess up a scrumptious melody just to get a few more insightful words in. The album is grandiose, melodramatic, even a lit-tle schlocky, but it's how it's all those things that counts. I'm glad she's back. We need more people with the guts to be and to remain themselves.

—Noel Coppage

MELANIE: Photograph. Melanie (vocals, gui-tar); Louis Shelton (guitar); David Pach (key-boards); Jay Wolfe (bass); Jim Gordon (drums); other musicians. Cyclone; If I Need-ed You; The Letter; Groundhog Day; Nickel Song; Photograph; I'm So Blue; Secret of the Darkness; Save Me; Raindance; Friends & Co. ATLANTIC SD 18190 $6.98, © TP-18190 $7.97, © CS-18190 $7.97.
With this new album, Kinky Friedman seems to be moving into Shel Silverstein territory. Having exhausted the potential of his Sargebrush Semite routine, he is working on becoming the Rusty Warren of country-rock. (One of the great stories of the music business is that Warner Bros. president Mo Ostin passed on him because he was afraid to tell his mother that he had signed a band called the Texas Jewboys.) The result of this shift is an album that you don’t listen to as much as you pull out for friends to listen to—a party record, in other words.

On that level, “Lasso from El Paso” has more than enough moments. There’s a drunken updating of Ray Stevens’ novelty classic Ahab the Arab; a thoroughly obscene Wai-tret, Please, Waitret; a charming children’s choir and a piquant Eric Clapton solo embellishing the thoroughly disgusting tale of Ol’ Ben Lucas (who “had a lot of mucus”); and, for gourmets like Peter Reilly who think Bob Dylan has no sense of humor, the premise of the Hibern Minstrel’s great baseball/soul/protest song, Catfish (that’s Catfish Hunter, the Hibbing Minstrel’s great baseball/soul/blues by Bergdorf’s and Saks Fifth Avenue); and seven others. Eric PE 34304 $6.98.

In her new album Frannie Golde comes on like an Upper East Side Bette Midler with a bra. It’s scarcely what the pop world has been waiting for, but, as she goes on her fastidious, silky way, singing her own songs (the only exception being the Lennon-McCartney All You Need Is Love) in her big, carefully controlled voice, she does communicate a basic musicianship rare in young, white female singers. Too bad it’s wasted on what she’s chosen to do here. Her songs are fairly awful, but she puts so much real-sounding feeling into trying to put them over that eventually one defrosts. A little. Not enough, though, to overlook some of the “styling” gimmicks she attempts vocally—strictly “soul” by Bergdorf’s and “blues” by Bendel. Ah, if only one could buy, or adopt, life experience . . . P.R.

WOODY GUTHRIE: We Ain’t Down Yet. Jess Pearson (narrator); Will Geer, James Seals, Dash Crofts (readers); Arlo Guthrie, Peter Yarrow, Hoyt Axton, Doug Dillard, John Hartford, Ramblin’ Jack Elliot, others (vocals and instrumentalists.) The Prophet Singer; Dear Mrs. Roosevelt; Build Me a World; Union Maid; Loneliness; Deportee; All of Us; So Long, It’s Been Good to Know You; Wet Pair of Shoes; Win; The Grand Coulee Dam; We Ain’t Down Yet; The Lady of the Harbor; Love Tonic; This Train Is Bound for Glory; Kids; My Daddy; Letter to Will Geer; Goin’ Down the Road; The Singing Cricket. CREAM CR-1002 $6.98. © 8316-1002H $7.95, © 5316-1002H $7.95.

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Later Guthrie; the prose here sounds less as if it had been excerpted from the letters and writings of what Woody could sometimes speak with homely eloquence in voicing his hatred of injustice (“I ache and I hate because the world needs so much fixin’”), but a little of this sort of thing goes a long way, and one just keeps wishing the next song would start. An exception is a touching moment or two in which Will Geer reads a letter he once got from Guthrie; the prose here sounds less as if it had been inscribed in stone with a clumsy chisel and more like the man I remember.

By now there must be a shelf full of these song/narration tributes to Woody. All of them are well-intentioned and feature generous lists of talent, but if you really want to hear a Woody Guthrie song done as it should be done, the best place to turn is still to one of Woody’s own albums, where that so harsh yet strangely gentle voice is accompanied by the guitar that always sounds like some marvelous extension of the singer’s quirky personality. May those records never go out of print!

P.K.

FRANNIE GOLDE. Frannie Golde (vocals); Love Is; I’m Hypnotized; All You Need Is Love; Just for Tonight, and six others. ATLANTIC SD 18196 $6.98. © TP-18196 $7.97, © CS-18196 $7.97.

FRANNIE GOLDE. Frannie Golde (vocals); Love Is; I’m Hypnotized; All You Need Is Love; Just for Tonight, and six others. ATLANTIC SD 18196 $6.98. © TP-18196 $7.97, © CS-18196 $7.97.

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for many, rotten with success, more a music move to a cynical scrutiny. He had become, too super, we were ready to subject his every it with superstars who seem to think they are bums rather mixed reviews and, as is our hab-

 Critics had given his solo al-

 above, it was a triumph. The thirty - four - performance cavalcade (airplanes 

 got chills. [McCartney's] so.

 But the tour changed all that. As Stereo Review's Steve Simels reported back then, "I came out [of the concert] almost ecstatic. I got chills. [McCartney's] so... endearing." Most critics agreed, and the twenty-one-city, thirty-four-performance cavalcade (airplanes have horse power too) was a triumph. The keepsake of that tour, the memory book of that triumph, is a fancy-cover album containing three records, a poster printed on both sides, twenty-eight songs, and—oh, yes—some very exciting performances. A pleasant switch from McCartney's seven other solo albums.

 Those albums were often marred by painful pretentiousness and a sappy, sentimental self-consciousness. The songs seemed to be overcooked and saccharine, like outtakes from a breath-mint jingle. But those some songs, oddly enough, removed from the studio candy box and set on the stage of the concert hall, work brilliantly, displaying some hard, rough edges that make us think more of sandpaper than of sandcastles. Moreover, McCartney sings them to communicate, not just to sound pretty. The result is a concert album of such realistic immediacy that you can almost smell the sulfur of the audience's lighted matches, yet they do that for McCartney too.

 A good "live" concert album is, I think, always more exciting than a studio product. It's hard for a listener to imagine himself in the studio while the music is going on (granted that he would want to), but quite easy for him to imagine himself part of an audience that is already part of a recording. The performer has a lot to do with this. McCartney doesn't do a lot of talking on these six sides, but that doesn't matter. What he does do is concentrate on transfer of energy, picking it up from the audience, giving it back to them, and picking it up again in a warmly playful process of feedback that is almost palatable.

 The album has fortunately avoided the pitfalls that await live-in-concert albums. Worst of these is the Greatest Hits trap, usually baited with enough sweetened laughter and applause for aLucy reunion. This album does contain McCartney's hits, but there are also enough never-before-recorded songs to make the whole thing a new dish rather than a platter of leftovers. One of them is Silly, the album's second band and last encore. It sounds like a rousing cross between an Elton John rocker and an Indian war dance, but it is pure McCartney, energy-filled proof that the man can rock and roll.

 We didn't really need that proof, I suppose. Everybody knows McCartney is a rock-and-roll star. But it's nice to learn from this album (and, of course, the tour that produced it) that he is such an accomplished performer, an entertainer who can keep an audience enchanted for two and a half hours and a producer who can transfer all that excitement to disc. Nearly every concert on the tour was recorded, and McCartney himself listened to all the tapes, choosing five (!) versions of each song. Then he spent about six weeks (seven days a week, fourteen hours a day) making the final selections, mixing, and mastering. The finished product is a complete concert without a noticeable splice, but McCartney wisely refrained from adding any cosmetics— all the cracks, groans, and rough edges of his voice are intact.

 The highlight for me is his performance of that unique Beatles classic Yesterday. Eerie, haunting, even a little chilling, it comes about as close as we're ever going to get to a reunion of the Beatles: a reunion of the old Paul and the new McCartney. If this album proves anything, it is that this Beatle has grown up, that he has come of age as a solo artist. His tunes may still be too predictable a sweet-and-sour, but when he sings them right, when he reaches to the bottom of his performing gifts, then he does the impossible: he makes us forget about the Beatles.

 —Rick Mitz
for largely negative reasons—Tom Scott's horns are almost inaudible, mentions of George's love for Krishna are held to a minimum (the Lord's in there a bit, but He's non-sectarian), a few of the songs have melodies, things like that. I have to admit, though, that I was sucker enough to have expected better. Granted, "Dark Horse" and "Extra Texture," his two previous efforts, were perhaps the worst albums ever made by a musician with a major reputation, but George, as glimpsed recently on NBC's Saturday Night in performance with Paul Simon, and in two hilarious Eric Idle-directed promo films, both looked and sounded swell. Unfortunately, the two songs he previewed in the films provide the album's only worthwhile moments; This Song is reasonably clever and actually rocks a bit, and Crackerbox Palace is an addictive bit of Beatleseque whimsy that has some sensational guitar playing and an arrangement so alive that I find it hard to believe that the backing is provided by the usual hacks—Wilie Weeks and company—who have made George and a slew of other famous artists sound exactly alike in the last year or two.

As for "The Best of George Harrison," the most telling comment that can be made about it is that while John and Ringo's greatest hits collections did not contain any material from their Beatles days, George's does—an entire side, in fact. That says more than enough about the declining state of George's creative powers.

JOHN HARTFORD: Nobody Knows What You Do. John Hartford (vocals, guitar, banjo, fiddle); Jim Colvbrid (guitar); Roy Husky Jr. (bass); Mac Wiseman (backing vocals); other musicians. You Don't Have to Do That; Didn't Want to Be Forgotten; In Tall Buildings; John McLaughlin; Granny Won't You Smoke Some Marijuana; Joseph's Dream; and six others. FLYING FISH 028 $6.98.

Performance: Very good
Recording: Good

I used to think, when John Hartford was straining metaphors in the shadow of Glen Campbell, that if he would take himself less seriously he'd really have something. I was right about this—he does take himself much less seriously here and most of this is great fun—but I didn't take into account something else I'd noticed about him: he tends to take a thing too far. Here he takes himself (and everything else) less seriously a little too far, which means part of the album is beyond fun and into a boring kind of absurdity. In The False Hearted Tenor Waltz and in the title song (which is constructed entirely of pointless innuendo anyway), for example, he lapses into a squawking falsetto by way of poking fun at his own singing voice. The instrumental Sly Feel might be fun to play for four and a half minutes, but a listener feels left out of the joke. Golden Globe Award really needs to be only one verse long to make its point and actually runs over four minutes. And so on.

But the album is better than it is bad. Hartford and Mac Wiseman use compone harmonizing to harpoon the mushy Somewhere My Love from Dr. Zhivago, and then graft a bit of Flatt and Scruggs' We'll Meet Again Sweetheart on the end to round it off. You Don't Have to Do That blends the kinds of gimmicks and messages found in such songs as Mama Don't Allow and Pretty as You Feel. and there's an excellent "straight" song (which is constructed entirely of pointlessness). Kaukonen seems to be trying for some such effect, I sometimes think. That would jibe with this other feeling I have that he's on an anti-stardom trip of some sort. The covers may be unattractive on purpose, this line of thinking goes, and that and the similarity of sound and material from album to album and the even modulated way Kaukonen sings may all be related. Exactly where he wants all this to lead is something I haven't figured out yet, but I'll keep trying. Meanwhile, here's Hot Tuna doing what Hot Tuna does.

N.C.

ENGELBERT HUMPERDINCK: After the Lovin'. Engelbert Humperdinck (vocals); instrumental accompaniment. After the Lovin'; Can't Smile Without You; Let's Remember the Good Times; I Love Making Love to You; This I Find Is Beautiful; and five others. EPIC ENG-34381 $6.98, PET-34381 $6.98.

Performance: Nothing new
Recording: Very good

Engelbert Humperdinck changed his name from he won't say what and got himself off a breadline in London about nine years ago to become an international singing star. Today, with his smooth, honeyed voice and flashy looks, he knows he doesn't have to try too hard to keep his following in love with him—and try he doesn't. On this record, Humperdinck dispenses artificial ardor in indifferent ballads with lines in them like "I know that my song isn't sayin' anythin' new" (he can say that again—and he does). The album should certainly keep his wife Pat and their four lovely children living in comfort in their mansion outside London until the next one is issued, which probably will be soon. No breadlines now.

P.K.

KID DYNAMITE. Kid Dynamite (vocals and instrumental). Shotgun; Feel a Whole Lot Better; Uphill Peace of Mind; Lovin' Don't Last Forever; Music Man; Mysterious Ways; (Continued on page 104)
The Onkyo Challenge...

The TX-4500 stereo receiver with Quartz Locked Tuning succeeds where others fail.

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* Stereo Review October, 1976

TX-4500 Quartz Locked AM/FM Receiver 55 Watts per channel, min. RMS, 6 ohms from 20 Hz to 20 kHz with no more than 0.1% Total Harmonic Distortion.
and four others. CREAM CR-1003 $6.98, © 8316-1003H $7.95, ® 5316-1003H $7.95.

Performance: Uninspired
Recording: Good

The jacket pictures and some of the sound (most of the vocals) suggest there's even more macho strutting going on here than normal for a rock group. It almost sounds like satire of that at times, but it doesn't go far enough and isn't clever enough to work that way. Val Garcia, who probably has a good voice if he would sing a song instead of act it, keeps turning the vocals toward a live-performance style, sounding as if what he really wants is not so much to be heard as to be seen. Yet much of the instrumentation seems canned. The band—two of its four members having trained under Steve Miller—is tight and technically competent enough, but that seems academic in this case, and I hear a lot more physics in it than chemistry. The songs, in any event, are hardly catalytic. Call it music to strike a pose by.

N.C.

AL KOOPER: Act Like Nothing’s Wrong. Al Kooper (vocals, keyboards, guitar, arrangements); instrumental and vocal accompaniment. (Please Not) One More Time; In My Own Sweet Way, Turn My Head Towards Home; Hollywood Vampire; This Diamond Ring; She Don’t Ever Lose Her Groove; and seven others. UNITED ARTISTS UA-LA702-G $6.98.

Performance: Intellectual
Recording: Very good

It's hard to tell whether Al Kooper is a musician or an entrepreneur; he seems to have been more involved in launching groups designed to a certain format than in staking out a claim for himself as a player. He was one of the Blues Project, a New York group of the mid-Sixties who approached the blues as if keeping the vocals toward a live-performance style, sounding as if what he really wants is not so much to be heard as to be seen. Yet much of the instrumentation seems canned. The band—two of its four members having trained under Steve Miller—is tight and technically competent enough, but that seems academic in this case, and I hear a lot more physics in it than chemistry. The songs, in any event, are hardly catalytic. Call it music to strike a pose by.

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Dolby FM and Conventional FM
Symmetry is the Difference

These block diagrams show the difference between Dolby FM and conventional 75 microsecond FM. The difference is symmetry. With Dolby FM, the circuits at the transmitter are matched by complementary circuits in the receiver. Such symmetry of signal matched by complementary circuits at the transmitter are difference is symmetry. With Dolby FM, conventional 75 microsecond FM. The difference between Dolby FM and conventional FM is like listening to any audio equipment improvement—such as those made to turntables, pickups, amplifiers, and speakers. A particular improvement in a component may well be there all the time, but its noticeability will depend on various factors, such as the listening environment or the type and quality of the program material.

In the same way, the overall Dolby FM listening improvement is subtle most of the time; occasionally, however, it will be quite obvious. It should be remembered that in FM the 10 dB action of the Dolby system is distributed nearly equally between the low-level noise and the high-level signals. The audibility of any change is therefore less obvious, and depends more on program material and other conditions, than the effect of the Dolby system on cassettes.

Relative to the hiss level of conventional broadcasting and reception, a somewhat (but not startlingly) reduced hiss will be noticed by listeners with weak-signal reception conditions; listeners with a strong signal will note no change (as with conventional FM, the noise will be determined by the station's source material). Listeners in any reception area, though, will notice a full recovery of source material high-frequency dynamics, regardless of signal strength. On most stations, cymbal crashes and other program material containing high-level high-frequency components will sound distinctly brighter and cleaner. Otherwise, for those rare stations which conventionally hold down modulation in order to preserve high-frequency signal integrity, the introduction of Dolby encoding allows an increase in overall level by several dB. Of course, this increase will be apparent to all listeners, regardless of location and whether or not they have receivers equipped with Dolby FM circuits.

Thus, the overall effect is that about half of the 10 dB Dolby noise reduction capability is traded off for symmetrical signal handling. But, considering the two extremes of the dynamic range, there is still a genuine total increase of 10 dB in available dynamic range above about 3 kHz.

If you like the idea of a symmetrical FM system with reduced noise, then we invite you to write to us for further information. The following information is available:

1. Technical details and explanations of Dolby FM.
2. A list of stations with Dolby FM decoder units.
3. A list of receivers with built-in Dolby FM circuits.

Listening to Dolby FM

Basically, listening to the improvement brought about by Dolby FM is like listening to any audio equipment improvement—such as those made to turntables, pickups, amplifiers, and speakers. A particular improvement in a component may well be there all the time, but its noticeability will depend on various factors, such as the listening environment or the type and quality of the program material.

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We think that critical listeners can hear and enjoy the various improvements described above often enough to make the extra cost of Dolby FM well worthwhile.

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Joni Mitchell's "Hejira": A Little Travelin' Music

A lady bug mysteriously appeared on the arm of my old ratty-green music-listening chair at 3 a.m., three days before November, just as I was getting to know Joni Mitchell's new album. The lady bug is a friend of man; back when I had a garden and other trappings of a fixed address, I used to order them through the mail and they would arrive and presumably eat up some of my enemies. This one was in such a wrong place at such an wrong time that I looked at it more closely than I once would have. What it looked like was a tiny pre-Rabbit Volkswagen, down to and including the orange paint job that has been available on those for several years. Where it came from is still a mystery, but what I hope is that it came in the mail, in the packaging with Joni Mitchell's album, for it is fitting that this tiny little live reminder of an automobile should accompany Mitchell's latest searching examination of wanderlust.

When Mitchell wrote Urge for Going years ago, she wasn't kidding. She has dealt with travel again and again in her music, travel and love, travel because of love, travel to sort out love, and even travel to escape love. Here, though, she has refined or distilled certain aspects of this into a seemingly irreducible poetry; she's articulated this connection between love and travel as she sees it, and she has gently fostered an acceptance of the white-line fever in her soul, seeing the highway not as a place she is exiled to (as in "Hit the road, Jack, and don't you come back no more no more") but as a place of refuge.

"Hejira," the word Mitchell chose as the name of the album and of an important song in it, is a word rich enough in connotation to suggest she is talking about running away with her troubles and faith instead of from them. Specifically, the word, usually spelled "hejira," means the start of the Mohammedan era, A.D. 622, when Mohammed, trying to escape persecution, migrated from Mecca to Medina. The word is applied more generally to emigration, more specifically to emigrants seeking a place of refuge from something that is a part of them. This specific usage of "hejira" means the start of the Mohammedan era, the Koran calls such emigration "Hajj," means the start of the Mohammedan era, the Koran calls such emigration "Hajj," and this, since we also need security to some degree—has confused our contemplation of the old conflicting yens to be autonomous and yet to attach ourselves to others. One can have a little of all three, but the question is, what are the proportions that will work? Let us go and seek the answer, Mitchell says, not go somewhere, just go—which means, first of all, we have to think positively about the going. A hejira is a flight from something, not a panic-driven mad rush with one's mind. Joni Mitchell is, one's faith, in a shambles, it is an emigration, a dignified process with hope in it. Most people, their security needs culturally inflated, don't do it. "... It made most people nervous," Joni says. "They just didn't want to know what I was seeing in the refuge in the roads."

Well, doing what makes other people nervous, being brave and seeing what she can learn from what ensues, is Joni Mitchell's job, as she has defined it. She's stood up well to her own tough standards here, producing not answers or platitudes or advice but a way of grappling with the questions—and producing literature, poetry, and, in the bargain, pushing back the frontiers of the sound of travel music a little.

Which reminds me: I wonder what kind of car she drives (probably not a Volkswagen; "I'm rich and I'm fey," she tells the ghost of W. C. Handy, and if I were those I wouldn't drive a VW). And that reminds me that I haven't seen the out-of-season lady bug for a couple of days.

—Noel Coppage

JONI MITCHELL: Hejira. Joni Mitchell (vocals, guitar, piano); instrumental accompaniment: Coyote; Amelia; Furry Sings the Blues; A Strange Boy; Hejira; Song for Sharon; Black Crow; Blue Motel Room: Refuge of the Roof. ASYLUM 7E-1087 $7.98, ©ET8-1087 $6.98, ©TC5-1087 $7.98.
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success with a version of Dylan’s nonsense drug song, The Mighty Quinn (Quinn the Eskimo), which drew an endorsement from Zimmermann himself. The follow-up singles, Fox on the Run and—one of my favorite titles—My Name Is Jack (and I Live in the Back of the Greta Garbo Home for Wayward Boys and Girls), made little noise.

The present group, the Earth Band, was formed in the early 1970’s and almost had a hit with Living Without You. But by then Mann seemed to have given up on or lost interest in pop, turning to a free-form rock mixed about equally with jazz and British folk. He is a skilled keyboardist and a gifted arranger, but his meandering, amorphous, and ultimately pointless current style has never been as interesting or fruitful as his approach to pop material. Only one cut stands out on this album—a lithe, leaping performance of Bruce Springsteen’s Blinded by the Light; Mann’s arrangement and the band’s pizzazz make it sound better than it actually is. Mann is an interpreter rather than a creator. It’s too bad he doesn’t spend more time applying his specialized talents to pop. J.V.

PENNY MARSHALL & CINDY WILLIAMS: Laverne & Shirley Sing. Penny Marshall, Cindy Williams (vocals); orchestra. Sixteen Reasons; Graduation Day; I Know; Five Years On; and eight others. ATLANTIC SD 18203 $6.98.

Performance: Poor
Recording: Expensive and elaborate

An enormous amount of expensive production work by Sidney Sharp and Jimmie Haskell went into the attempt to mask the indiffer- ent singing talents of Penny Marshall and Cindy Williams, the stars of the top-rated TV series Laverne & Shirley. Lots of cutey Fif- ties touches, songs that sound as if they were rejects from Grease, and elaborate arrangements can’t hide the fact that Marshall and Williams can’t sing their way out of a paper bag. This is a blatant commercial try at ripping off diehard fans, one that I hope doesn’t succeed. What next, the Fonzie reciting This Is My Beloved?

DAVE MASON: Certified Live. Dave Mason (vocals, guitar); instrumental accompaniment. Feelin’ Alright; Pearly Queen; Show Me Some Affection; All Along the Watchtower; Every Woman; World in Change; Coin’ Down Slow; and seven others. COLUMBIA PG 34174 two discs $7.98, © PGA-34174 $8.98, © PGT-34174 $8.98.

Performance: Mostly very good
Recording: Good remote

Dave Mason does some impressive singing and his usual tasteful kind of picking here, but there’s a live-album looseness about it. One tightly edited disc might have been more rewarding, if indeed such a thing is possible to pull out of live rock performances. Mason does a glancing retrospective of his own material, some blues, and a few covers of contemporary songs. He doesn’t try to overhurl the covers or fish for about for “alternative” interpretations; his version of one of the Eagles’ best songs, Take It to the Limit, is individualistic not in obvious ways but in subtle ones. I really like that, and I like about two-thirds of a disc’s worth of other odd particles, including the way he does his own Sad and Deep as You and most of the way he does Sam Cooke’s Bring It On Home to Me. But there are several of those drawn-out, live-album instrumental breaks that are so boring in the privacy of the home, and there’s the usual stuff it would be better to see than to hear. I’ve thought of cramming twenty or thirty friends into the room to see if that makes the atmosphere fit the record—but where would a pop music critic get that many friends? N.C.

MURRAY MCLAUCHLAN: Boulevard. Murray McLauchlan (vocals, guitar, piano, harmonica); Silver Tractors (instrumentals). Harder to Get Along; Train Song; Met You at the Bottom; La Guerre C’Est Fini pour Moi; and five others. ISLAND ILTN 9423 $6.98.

Performance: Fair
Recording: Okay

Murray McLauchlan is a Canadian folk-rockuer whose voice, material, and delivery depend too much on the occupational delusions of the average folk singer: that everything he says is important, that every character portrait or situation he provides is bathed in an aura of pure aesthetics, and that everybody out there in the audience is just dying to hear what he has to say. Average folk singers like McLauchlan (or annoyingly ambitious ones like Harry Chapin) insist that the listener recognize them as being important and worthy before they have demonstrated any claim to being so.

McLauchlan’s material is about what you’d expect: a train song, broken-romance songs, anti-war songs. The band behind him, which is adequate, is billed as the Silver Tractors. If things don’t work out in the folk-rock area for McLauchlan, perhaps he can try again as a hard-rock act and call himself Stutz Bearcat and the Platinum Studebakers.

J.V.

SUSIE MONICK: Melting Pots. Susie Monick (banjo); David Amram, Steve Burgh, Timmy Cappello, “Charlie” Chin, Richard Crooks, Peter Ecklund, Erik Freiheit, Ted Husband, John Hartford, Bob Hipkens, Mark Hoffman, Alto Madness, Tony Markellis, Bob Montalto, Tony Ramos, Jeremy Steig, Brian Torff, Tony Trischka. Jay Ungar, Kristin Wilkinson, Ted Wonder (instrumentals). Clinch Mountain Backstep; Daybroke My Manhattan; Whiskey Before Breakfast; Colts Creek; One Day on South Street; and five others. ADELPHI AD 4107 $6.95.

Performance: A lot of a good thing
Recording: Very good

Susie Monick has a talent for playing a mean banjo and another for surrounding herself with some of the liveliest musicians in the business. The roster of her accompanists in “Melting Pots” is almost more impressive than the lusty instrumentals of which the album consists. With thoroughgoing mastery, Monick can make all three types of five-string banjos she plays—the frailing banjo, the bluegrass banjo, and the solid-body electric banjo—do just about anything. Anything, that is, except not sound like a banjo, and that, even with all the master fiddlers, atmosphere, French-horn tooters, and dobro players on hand for the occasion, is a built-in handicap. Pieces like Marmalaid are rife with wit and ingenuity, and there is nothing wrong, I suppose, with naming a banjo composition after a cat named Orange Julius. But in the long run it all begins to blur together. Still, no record I’ve heard recently has come up with a better finale than Wicked Witch Breakdown, said to have been composed “after teaching seventy-six students how to play Cripple Creek” and making use of everything from muncie saw to the cackling of the witch herself. It’s a honey of a Hallowe’en piece, although even more

(Continued on page 112)
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From the first tuner and amplifier that won't scare you into buying a receiver to our unique turntable built as steady as a rock, find out why throughout Europe and Japan, Optonica is one of the fastest selling lines of stereo components on the market today.
disappointment. The hero (Kris Kristofferson) is now a rock idol and the girl (Streisand) is a struggling singer, which ought to have made the problems of story/song integration a whole lot easier. Maybe too easy, for the songs (by several hands, and not a rocker among them—Barbra doesn’t do that kind of thing) seem just to plop on by, one by one, pieces of special material tailored to the scale (larger than life) and the dynamism (considerable) of heroine Streisand.

There are, I must confess, three happy exceptions, all by Paul Williams and Kenny Ascher. Kristofferson gets one, Hellacious Acres (hell as an amusement park), and he performs it with a manic fury I didn’t know he had in him. Streisand gets the other two. The Woman in the Moon is a really good song that may have just a superficial touch of women’s lib about it (“I was warned as a child of thirteen/Not to act too strong . . .”), but it moves beyond contemporary sexual politics to become a song about personal freedom for everyone. It is unquestionably a Streisand Song, and she bites into the highly charged lyrics (“Keep on pushin’! Don’t believe a word about/Things you heard about/Akin’ too much too soon . . .”) with the kind of dramatic conviction only she seems able to muster these days. Fan or not, one has to applaud that kind of steely magnificence.

Like any other great performer, Streisand has to have one big set piece per show, one rip-up-the-seats, get-’em-in-the-gut scene; in this case it is the third Williams/Ascher song, the finale, called With One More Look at You. That one more look lasts a good deal longer than you would believe in the movie, but on disc it sums up all the tender, protective, yet urgently erotic yearnings she feels for her lost lover in a bravura performance.

One of Streisand’s least recognized (or perhaps least publicized) talents is her executive instinct. She has always had an unerring sense of the right person for the right job—that job being, of course, the provision of the material, direction, whatever, that sets Barbra off to precisely the best advantage. Part of that instinct was knowing when to give others their head as creative artists, when to step out of the kitchen. Here, for some mysterious, Jerry Lewis-ish reason, she stayed at the stove to cook up the music for The Love Theme from a Star Is Born, a wet-dream theme out of Brahms adapted for a TV deodorant commercial, and lyrics for Lost Inside of You (music by Leon Russell—he, at least, is a rocker) that are as contrived as a Middleton double-crostic. The result is a general lowering of standards; the songs contributed by Rupert Holmes, Donna Weiss, and Alan and Marilyn Bergman are all sadly, mechanically routine.

Streisand will most likely have to take the rap for the packaging too, from the tacky Scalvullo photo of her and Kristofferson locked in a nude embrace to the series of stills from the film, mostly bare flesh and heavy breathing—except for the “performance” shots, which manage to give the really spooky impression that A Star Is Born might actually be (pardon my irreverence) The Story of Sonny & Cher.

The Garland version? Simply a joy to hear again. She is in wonderful voice, she has an immortal pop classic (The Man Who Got Away) to introduce, and she sings it every bit as well as Harold Arlen could possibly hope for. The Born in a Trunk number (her bravura scene) remains a wonderful montage of yes- terday’s pop hits assembled and used by the style of the last great vaudevillian. Garland was the classic tragic gamine, primarily a singer, but she also had a specially communicative dramatic power with which she could convince you of almost anything. Of comparisons there can be none. It would be as pointless as comparing Laurence Olivier’s Hamlet to Albert Finney’s. Both are creative artists, both offer their quite individual conceptions of the material at hand. Streisand remains Streisand, Garland Garland. There are precious few like them in any theatrical century.

—Peter Reilly

A STAR IS BORN. Original-soundtrack recording. Barbra Streisand and Kris Kristofferson (vocals); orchestra, musical supervision Paul Williams. COLUMBIA JS 34403 $8.98, © JSA 34403 $8.98, © JST 34403 $8.98.

A STAR IS BORN (Harold Arlen-Ira Gershwin). Original-soundtrack recording. Judy Garland (vocals); orchestra, musical direction Ray Heindorf. COLUMBIA SP ACS 8740 $7.98.
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scary is the idea of those seventy-six players being let loose on a defenseless world to launch banjo albums of their own. P.K.

MELBA MOORE: Melba. Melba Moore (vocals); instrumental accompaniment. The Way You Make Me Feel; Good Love Makes Everything Alright; The Long and Winding Road; Ain't No Love Lost; and four others. BUD-DAH BDS 5677 $6.95, © 8320-5677 $7.95, © 5320-5677 $7.95.

Performance: Show-off Recording: Excellent

Melba Moore? Why, it seems only yesterday when that girl with the glorious gospel voice was knocking us dead on Broadway in Purlie. Now the still immensely talented Melba seems to be going the way of so many fine performers in her line—putting out a series of faincilly wrapped gift packages with so much glitter surrounding the stuff that it's hard to find the gift. No mistake about it, Melba can still sing her heart out when she wants to, especially in a real gospel tune like Mighty Clouds of Joy, or when she's given a chance to be herself in a touching ballad like Lennon and McCartney's The Long and Winding Road. Most of the space here, however, is wasted in showy over-arrangements of shabby tunes in which Melba is driven, like a vocal trapeze artist egged on by some fiend of a trainer, to show off how high she can scream, how loud she can belt, how hard she can cock out her soul credentials. Swamped in the overproduction of it all, she made this listener wish she could buy back her own personality somehow and be the girl we all loved at the start, when the song was the thing, not the musical tricks and the showing off. P.K.

DONNY MOST. Donny Most (vocals); orchestra. Hey Baby; Terminal; Bony Mornie; Rock Is Dead; Early Morning; and five others. UNITED ARTISTS UA-LA696-G $6.98. Performance: For collectors Recording: Okay

Here's yet another refugee from a hit TV series to be immortalized on vinyl. This album, finely produced and arranged as a disco record, showcases Donny Most (from Happy Days) in an awesome variety of musical moods and alternating rhythms. The problem is that Mr. Most cannot sing, and he is about as rhythmic as an attack of St. Vitus' dance. In addition, there is evidence here that his voice is in the process of changing—into precisely what I'm not sure. A real collector's item.

THE O'JAYS: Message in the Music. The O'Jays (vocals); orchestra. A Prayer; Let Life Flow; Desire Me; Paradise; Make a Joyful Noise; and three others. PHILADELPHIA INTERNATIONAL PZ 34245 $6.98, © PZA 34245 $6.98, © PZT 34245 $6.98. Performance: Routine Recording: Good

Here, from the Philadelphia kitchens of Gamble-Huff, is another ragout de zilch. Aimed at the guts of the disco market, it ought to put the average place out of business in one night. The nominal stars of the album, the O'Jays, are saddled with a batch of typically mediocre Gamble-Huff creations and almost obliterated by super-loud, super-busy arrangements. As they vaiently tried to boogie their way through it as if wearing lead shoes, they won my sympathy but no cigar. P.R.

MAX ROMEO & THE UPSETTERS: War Ina Babylon (see Best of the Month, page 92)

(Continued on page 114)

DONNY MOST

As rhythmic as an attack of St. Vitus' dance

United Artists
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LEO SAYER: *Endless Flight*. Leo Sayer (vocals); orchestra. *Hold On My Love; Reflections; Endless Flight; Magdalena; How Much Love*; and five others. WARNER BROS. BS 2962 $6.98, © M 82962 $7.97, © M 52962 $7.97.

Performance: Disappointing
Recording: Fancy

Leo Sayer used to be one of the spritlier, more caustic spirits among us; but "Endless Flight" is a no more than shopworn sound; the production, by Richard Perry, is as fancy as it is un-ure and scattered—as if afraid not to touch all bases; and Sayer himself sounds untypically forced and strident. *No Business Like Love Business* is undoubtedly the low point (it's a monstrosity), and the not very high point is Sayer's own *I Hear the Laughter*, a song about loneliness that at least has some echoes of his earlier, more sardonic work. You'd think that a man as naturally talented as Sayer is would be able to run through this kind of commercial bleep on sheer technique, but somehow it doesn't work out that way. Prob-ably just as well for Sayer's own future.

BOB SEGER & THE SILVER BULLET BAND: *Night Moves*. Bob Seger (vocals); Silver Bullet Band (instrumental accompaniment). *Rock and Roll Never Forgets; Night Moves; The Fire Down Below; Sunburst; Sun-spot Baby*; and four others. CAPITOL ST-11557 $6.98, © SXT-11557 $7.98, © 4XT-11557 $7.98.

Performance: Excellent
Recording: Very good

Despite the rock media's strenuous assurances that Bob Seger, a Detroit hero, is exactly what national audiences should have been looking for all their lives, and that rock can't get along without him (just as the media can't survive without telling us this), Seger is probably more than a hard-working, better-than-average singer who occasionally surpasses himself.

His cougar-scream vocals and phrasing owe quite a lot to the black Motown influence. No Detroit white singer has ever escaped the harping, aggressive peculiarities of the style, especially as portrayed by Levi Stubbs of the Four Tops and by Edwin Starr. But there are other influences. In the title tune, which owes its narrative plot and musical construction to Van Morrison's *Brown-Eyed Girl*, Seger phrases like the glorious Otis Redding, the Georgina genius. *The Fire Down Below* is in the manner of Who's Makin' Love and Take Care of Your Homework, both hits for Johnny Tay-lor of the Memphis-based Stax label in the late Sixties (Taylor was a subtler screamer than Stubbs, but harder than Redding), and the Silver Bullet Band plays in the two-fisted, slyly, air-tight *Brown Sugar* style of the Roll-ing Stones.

The other cuts on the album prove that Se-ger is a highly professional and experienced entertainer who enjoys his work and has thoroughly absorbed his influences so that he can deliver his performances with punch and bra-vado. He is not an original by any means, but he is solid and dependable. His previous al-bum, a live recording of a Detroit concert where he was preaching to the already con-verted, was a noisy and flabby thing, but he seems to do better in the disciplined confines of the recording studio. It's not a world beat-er, but for what it is, and for who he is, this is a very good album.

SPARKS: *Big Beat*. Russell Mael (vocals); Ron Mael (keyboards); instrumental accompa-niment. *Big Boy; I Bought the Mississippi River; Everybody's Stupid; Nothing to Do; Confusion; Fill-Er-Up*; and five others. CO-LUMBIA PC 34359 $6.98, © PCA-34359 $6.98, © PCT-34359 $6.98.

Performance: Misapplication
Recording: Good

Sparks are the brothers Ron and Russell Mael, two Americans who were, until about a year ago, happily expatriate in England, where their dizzy songs, daffy stage theatrics, and LP's made them quite popular. They are now living again in the United States, and they are quoted in the press material that accompanied this album to the effect that they consider it "very guitar oriented, very hard

rock. . . It's obvious, like rock should be, and more accessible than anything we've ever done before."

Unfortunately, the most obvious thing about this album is that Ron Mael's talent for writing and Russell's for comedic singing are simply too good for hard rock, and their at-tempts to pair it with that style's pounding monotony smashes their humor into a pulp. The Mael's sophisticated, dadaistic music be-longs in a cabaret or a revue; for recordings the accompanying instruments and players should be tailored to the material, not the other way around. Sparks have made a wrong choice here.

J.V.

RECORDING OF SPECIAL MERIT

THE STAPLES: *Pass It On*. The Staples (vocals); orchestra. *Take This Love of Mine; Making Love; Precious, Precious; Pass It On; Party; and four others*. WARNER BROS. BS 2945 $6.98, © M 2945 $7.97, © MS 2945 $7.97.

Performance: Excellent
Recording: Excellent

The Staples are one of the suavest vocal acts in the business, and they do their thing exceed-ingly well in this silver platter of an al-bum. Curtis Mayfield wrote all of the material here (most of it's very good) and furnished a production that glistens and glows with first-rate professionalism. The three-girl, one-man group gallivants through such things as *Party* and the hokey *Love Me, Love Me, Love Me* with the kind of stylish, self-confident swagger that only the complete pro can handle without turning the audience off. Their clean, defined attack is a wonder to listen to, and the arrangements by Rich Tufo spotlight the sleekness of it all. "Pass It On" is a model of musical craftsmanship.

P.R.

JEAN CARIGNAN: *Rend Hommage à Joseph Allard*. Jean Carignan (violin); Gilles Losier (piano). *Reel de port neufl/Clog Double; Coti-lion à huit/Quadrille de Beauharnois; L'Ame-ricain et l'Ecosais; Reel indien/Reel des chantiers*; and twelve others. PHILO FI-2012 $5.98.

Performance: Sprightly
Recording: Pretty good

Joseph Allard, who died in 1947, had a reputa-tion as one of the best fiddlers in Canada, and Jean Carignan was his friend, student, and protegé. Philo, a small record company in Vermont, has printed the liner notes for this album in English and French, apparently for distribution in Eastern Canada. Carignan is, as Allard was, a traditional or "folk" fiddler, which means, among other things, that he (Continued on page 116)
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doesn't improvise. At a barn dance, the fiddler—being the only player, more often than not, and responsible for the whole melodic line—was constrained to play the tune the way it went. The fiddlers in show business, including Chubby Wise in Bill Monroe's band, were the ones who worked on improvisation. Carignan plays distinctively, however; the sound is cleaner than that of a typical Appalachian folk fiddler, more old-worldly and yet less likely to be sweet. He puts a brassy edge on it, and he is quite rhythmic; there's a stevedore, grew up on the docks of England and has wandered the world as a sea cadet, a Royal Marine Commando, and a coal miner in Germany. Marston is an ex-merchantman. Jones started his musical career as a drummer in a Salvation Army boys' band and once climbed Mount Kilimanjaro. And when these three get together to sing the old ballads of the high seas the results are as bracing as the sea itself. The generous program here ranges from bitter ballads of underpaid whalermen to comic songs about the ladies encountered on shore leave and sad ones about such matters as the mood of troops sailing off to war. One of the songs is an original by O'Hegarty called "Classic Yankee Clipper;" you'd swear it was a real classic just like the others. The singers are accompanied by all the right instruments—concertina, pennywhistle, fife, eighteenth-century guitar—and the album is as seaworthy as the sailing life it celebrates. P.K.

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THE STARBOARD LIST: Songs of the Tall Ships. The Starboard List (vocals); instrumental accompaniment, Early One Morning; The 51st Highland Division's Farewell to Sicily; The Bark Gay Head; Wings of a Gull; Cape Cod Girls; Farewell to Tarwathie; Black Ball Line; Classic Yankee Clipper; Paddy Lay Back; and six others. ADELPHI AD 1025 $6.98.

Performance: Shipshape
Recording: Very good

The Starboard List is a foam-flecked bunch of boys named Charles O'Hegarty, Peter Marston, and David Jones. O'Hegarty, the son of a stevedore, grew up on the docks of England and in Canada: Superior Electronics, Inc.

THE ERNIE KOVACS ALBUM. Ernie Kovacs (comedian). Tom Swift; J. Walter Puppamb; Albert Gridley; World's Strongest Man; Droongo; John; Percy Dovetonsils; and nine others. COLUMBIA PC 34250 $6.98.

Performance: Rapiers, not bludgeons
Recording: Good

Ernie Kovacs was born in 1919 and was one week shy of forty-three when his car skidded into a Beverly Hills telephone pole in 1962, depriving the country of one of its most endearing entertainers. As a comedian, Kovacs sought to embody a character who "shambled through life vainly attempting to cope with a world that is essentially copeles." Yet Kovacs himself coped better than most of his competitors. And, for those who have never stopped missing the presence of Kovacs in their living rooms, grungy cigar and all (I'm one of them), this album may temporarily relieve the mood of mourning. Here he is, knocking down such sacred cows as Tom Swift, in an episode during which the hero of heroes is kidnapped by unscrupulous rivals and left to shift for himself in the tuna-fish salad slot of an abandoned Automat. With the machete of his contempt for sentimental pap, Kovacs smashes to bits one of those "heartwarming" tales about a precocious collie, in this case a specimen with a short memory who winds up biting a benefactor in the leg. Here is his eager interviewer, Albert Gridley, coaxing out of a guest some hazy recollections of dreary days out West. Here is Percy Dovetonsils lisp ing his way through an anecdote about a voracious bookworm who eats Proust for dessert. And here is J. Walter Puppamb to share shallow philosophical bro mides with an eager world.

If Kovacs' brand of humor sounds strange ly gentle in this savage hour, it's a relief to hear a comedian content to aim his barbs at
nothing more topical than the complicated rules of a children's game and who manages to do so without having to draw his vocabulary from the walls of men's rooms. P.K.

GEORGE BENSON/JOE FARRELL: Benson & Farrell. George Benson (guitar); Joe Farrell (flute, soprano saxophone); orchestra. Flute Song; Beyond the Ozone; Old Devil Moon; and two others. CTI CTC-6069 $6.98; © CTC-6069 $7.98; © CTC-6069 $7.98.

Performance: Formula
Recording: Very good

I recently heard saxophonist Joe Farrell's group at New York's Village Gate, but the music was so overamplified that several customers actually sat there with their hands covering their ears, and with pained expressions on their faces; if anything of musical value was happening on the stage, it was drowned out by the noise. Listening to this record, I was at least able to control the volume myself, and what I heard was two excellent musicians (actually, "outstanding" is a better adjective for George Benson) wasting their talents on what can perhaps best be described as a modern version of the Hollywood "jungle" fare Les Baxter used to dish out to unsuspecting housewives. There are good moments, especially on Old Devil Moon, but this is not a record to be taken seriously. Benson is an extraordinary artist, and I am not faulting him for going after the wide market this kind of album might appeal to, but I wish he had treated those nine minutes were all this album had to offer, $5.98 would not be too much to ask, but the duets with Ornette Coleman that constitutes the second half of this side is equally impressive. Coleman shaped Haden's musical thinking, starting almost twenty years ago, and the rapport established then has not diminished. In his notes Haden states that he has always wanted to record a duet album with Coleman; it's a splendid idea. C.A.

CHARLIE HADEN: Closeness. Charlie Haden (bass); in duets with Ornette Coleman (alto saxophone); Keith Jarrett (piano); Alice Coltrane (harp); Paul Motian (perussion). Ellen David; O.C.; For Turiya; For a Free Portugal. HORIZON SP.710 $5.98

Performance: The bad and the beautiful
Recording: Excellent

Bassist Charlie Haden's name is a household word in free-form jazz circles, and it is most appropriate that this album—his first as a leader in several years—should be devoted to duets, for Haden, unlike most bass players, rarely assumes the role of an accompanist. There are four duets here, two excellent ones, a fair one, and one that, quite frankly, sounds like a bad joke.

To take worst things first, side two consists for the most part of For Turiya, which is more for the birds, in my opinion, owing to the faustable presence of Alice Coltrane. Much as I have tried to detect a trace of talent in this lady's work, I have not been able to come up with a single excuse for her relative prominence except that she was the wife of the late John Coltrane, and that is, of course, no excuse at all. Here, once again, she runs her fingers aimlessly along the strings of her harp, and, alas, she does so for twelve and a half minutes! If that has not completely dulled your senses, you might get some relief—eight minutes' worth—by listening to Haden's collaboration with drummer Paul Motian on something called For a Free Portugal; even with the dubbed-in battle sounds of a 1968 M.P.L.A. attack on Portuguese barracks, this track is easier on the ear than the preceding one.

Now for the salient features of this album, the two duets on side one. Ellen David, Haden's tribute to his wife, is a brilliant, beautiful joint effort with pianist Keith Jarrett, with whom Haden has often played before. If
Way back in the 1930's, when the patriotism that long had been regarded as the last refuge of scoundrels suddenly became fashionable among liberals (somewhat as it did again in the Bicentennial year), certain intellectuals of the period discovered "the people" and "the little man" and "the man of the street" as a political entity rather than the sentimental, slightly quaint folk-hero he had been for the romantics of the early part of the nineteenth century. This made for some perfectly dreadful and mercifully forgotten bad novels, poems, and pageants. Yet, some good things came of it, one of them being the Ballad for Americans, originally called The Ballad of Uncle Sam when it was presented as the finale of the government-sponsored Works Progress Administration musical revue Sing for Your Supper in 1939.

Its author was John Latouche, a brilliant poet who was twenty at the time (he later wrote the lyrics for, among other successes, Cabin in the Sky and the opera The Ballad of Baby Doe) and who wanted to write a sermon in verse protesting intolerance in general and the particular kind of persecution that was then sweeping Europe. The music was by Earl Robinson, who wrote in a tuneful idiom that "the people" and "the little man" didn't have to strain very hard to enjoy. Sing for Your Supper was denounced on the floor of Congress as a subversive left-wing plot, but when Norman Corwin managed to get it performed on his new CBS program Pursuit of Happiness, the Ballad for Americans became a nationwide hit. Soon no respectable liberal home was without a copy of the recording, which featured soloist Paul Robeson, just back after twelve years of self-imposed exile in London.

RCA Victrola's recent re-release of the Ballad is quite timely, even though, considering all this country has been through in the last forty years, the sentiments the piece expresses sound wistfully naive today. Latouche's vision was of a homogenized, melting-pot citizenry, "an Irish, Negro, Jewish, Italian, French and English, Spanish, Russian, Chinese, Polish, Scotch, Hungarian, Lithuanian, Swedish, Canadian, Greek and Turk/And Czech and double Czech American." We all know what happened to that idea when ethnicity came into fashion. Still, the Ballad has its stirring moments. The sound has been cleaned up skillfully, and Robeson is not only a robust singer but a persuasive narrator.

On the other side of the record, however, all the power in the considerably powerful baritone of John Charles Thomas cannot rescue the simplistic cipher of a score George Kleinsinger applied to passages from Walt Whitman's I Hear America Singing, commissioned by the International Ladies Garment Workers' Union and first performed in 1940 at a Madison Square Garden rally in honor of Eleanor Roosevelt. (Kleinsinger got $100 for the job; he was overpaid. He had to be better later with Tubby the Tubal.)

Légendary as Robeson's performance in Ballad for Americans is, the work gets an even stronger treatment from Brock Peters in a revival on the United Artists label. Peters is just as eloquent as Robeson and, at the same time, less patently oratorical in his role as narrator. And he sings superbly (a step higher than Robeson, in the key of D). The choral and orchestral passages, rearranged by Luther Henderson, are vigorously performed and the whole thing is marvelously well recorded. Moreover, the companion piece on this record is the even more ambitious cantata Lonesome Train, another Robeson effort--this time to an impressive text by Millard Lampell that rehearses the progress of the funeral train bearing Abraham Lincoln home to Springfield after his death. For all its penchant for listing things—a penchant it shares with many pieces of the period (see the Latouche quote above)—Lonesome Train has survived the vicissitudes of political and musical fashion rather better than the more famous Ballad.

All these works are of their period, and they all suffer from a peculiar paradox: the more they glorify simplicity and the "common man," the more pompous, affected, and unreal they tend to sound. Yet nothing has been written about America in the interim that is any better than the Ballad for Americans or Lonesome Train. A text for Ballad is supplied with the United Artists disc, none for Lonesome Train. RCA Victrola includes liner notes only—what do you want for $3.98?

—Paul Kresh

ROBINSON: Ballad for Americans. Paul Robeson (bass-baritone); American People's Chorus; RCA Victor Symphony Orchestra, Nathaniel Shilkret cond. KLEINSINGER: I Hear America Singing. John Charles Thomas (baritone); ILGWU Chorus; RCA Victor

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Atma; Ganesha's Jubilee Dance; Karuna. Sut- 

tive embryo we call jazz. The combination is 

bilee Dance—the album brings together the 

in sound—though some decidedly Western 

forces, they are willing to dilute their art 

claiming to be moved by mysterious spiritual 

in some musical circles these days, it has also 

made some fruitful unions, and this album is 

a delightful case in point. Predominantly Indian 

in sound—though some decidedly Western 

harmonic concepts creep into Ganesha's Ju-

bilee Dance—a musical begins together the 

centuries-old tradition of raga and that rela-

tive embryo we call jazz. The combination is 

not new, but it has never been as successful 

as it is here. Ali Akbar Khan, who ranks sec-

ond only to Ravi Shankar (his brother-in-law) 

as India's most venerated musician, has ad-

mired the music of Duke Ellington in Calcutta 

some thirty-two years ago, and he has often performed with John Handy in the 

San Francisco area over the past six years. 

Handy—at fifty-five, eleven years Khan's 

junior—rose to prominence as a sideman with 

Charles Mingus in the late Fifties and has 

since led successful groups of his own. Handy 

is not playing any differently here than he 

would be if he were performing with a group of 

jazz musicians, but he has an obvious feel 

for Indian music and he is never obtrusive, 

which is what makes this such a fine blend. 

There are no gimmicks here (and bear in mind 

that, in the hands of lesser artists, the com-

bination itself could easily be construed as a 

gimmick), just forty-one minutes of outstand-

ing artistic display and thoroughly enjoyable, 

lasting music.

JAKE HANNA: Kansas City Express. Jake 

Hanna (drums); Bill Berry (trumpet); Richie 

Kamucu (tenor saxophone); Nat Pierce (pi-

ano); Monty Budwig (bass); Mary Ann 

McCall (vocals), Robbin's Nest; It's Sand 

Man; Castle Rock; That Old Feeling; Stom-

pin' at the Savoy; and five others. CONCER-

T JAZZ CJ-22 $6.98 (from Concord Jazz, Inc., 
P.O. Box 845, Concord, Calif. 94522).

Performance: Swing à la Basie 

Recording: Very good

It isn't often we hear this kind of driving, hot, 

small-band swing these days, and when we do 

it is rarely as well executed as it is on this al-

bum. Drummer Jake Hanna, who has pro-

pelled the bands of Duke Ellington, Harry 

James, Herb Pomeroy, and, most notably, 

Woody Herman, has surrounded himself with 

experts in the field of no-nonsense jazz, an 

over-forty group of players who remember 

the days when it didn't mean a thing if it 

didn't have that swing. With Nat Pierce on pi-

ano and such tunes as It's Sand Man and Dog-

gin' Around in the program, an aura of Basie 

quite naturally prevails, but there's nothing 

wrong with that. Trumpeter Bill Berry and 

saxophonist Richie Kamucu are superb 

throughout, and Monty Budwig's light, 
bouncing bass is an inspiration. But the real 
surprise is vocalist Mary Ann McCall, a fifty-

eight-year-old veteran of the big-band era 

(Dorsey, Herman, Barnett), who appears on 

three selections and is in remarkably good 

form. Her voice is slightly hoarse these days, 

but her delivery is intact and she blends in 

bass with her impressive surroundings. The 

timing of this release is good, coming as it 

does during Woody Herman's fortieth anni-

versary as a bandleader—Herman has had 

each member of this crew under his wing at 

time one or another, and they have all done 

him proud with this offering.

BAIRD HERSEY: The Year of the Ear. Baird 

Hersey (guitar); Dave Liebman (soprano and 
tenor saxophones); others. Night in Tunisia; 

Creio; Winter's Light; and three others. 

BENT BRS1 $6.98 (from Bent Records, 525 

Beacon Street, Boston, Mass. 02115).

Performance: Excellent 

Recording: Excellent

These are mostly new names playing the so-

called new music—and doing a much better 

job of it than many older names I could call. 

Leader Baird Hersey is responsible for all but 

one of the compositions, Dizzy Gillespie's 

Night in Tunisia, which is taken at an unusu-

ally slow tempo and played more convention-

ally than the rest of the program, but which 

nevertheless has a character all its own. The 

rest of the program consists of very dramatic, 

mostly morose music in which Hersey uses 

his thirteen to seventeen musicians to create, 

with very effective orchestration, sounds usu-

ally generated electronically with synthesiz-

ers. The result, sprinkled generously with 

good solos and free-form ensemble passages, 

makes this a most impressive record debut (if 

Hersey has recorded before, it is a well-kept 

secret). Saxophonist Dave Liebman—who's 

reputation has been established by way of his 

work on the ECM label—contributes some 

fine performances here, but he does not over-

shadow the talent that surrounds him. The al-

bum's longest composition, First of All One 

Must Be Very Open Minded, is dedicated to 

Bill Dixon, a forward-thinking trumpeter/com-

poser who was a leader in the avant-garde 

movement of the mid-Sixties. I suspect Her-

sey is one of his students, and it would not 

surprise me if this were a student orchestra 

from which we certainly can expect some of 

tomorrow's "names" to spring.

HARRY JAMES: The King James Version. 

Harry James (trumpet) and His Big Band. 

Corner Pocket; Laura's Theme; Don't Be That 

Way; and six others. SHEFFIELD LAB LAB-3 

$6.98 (from Sheffield Lab, P.O. Box 5332, 

Santa Barbara, Calif. 93106).

Performance: As it was, so it is 

Recording: Excellent

As any swing-era bible will tell you, Harry 

James was one of the period's great apostles. 

He became a star by blowing crisp, fiery solos 

to the pulsating beat of Gene Krupa's drums 

in the Benny Goodman band of the Thirties, 

formed his own successful band in 1939, and 

added a touch of Hollywood glamour to his 

life during World War II by marrying pin-up 

favorite Betty Grable. The glitter and glamour 

have long since faded, but James has con-

tinued to lead Basie-oriented bands on and off 

since 1939, and—as this 1976 set of recordings 

shows—he is still a fine trumpet player whose 

style is totally unaffected by any post-swing-

era developments. The arrangements—by 

such writers as Thad Jones, Ernie Wilkins, 

and Ray Coniff—also fail to reflect what has 

happened to the music in the past thirty years, 

but it is all very pleasant and superbly per-

formed nevertheless.

The excellent recording was achieved by 

using a system that feeds the signal from mi-

crophone to console and from console direct-

ly to the cutting lathe. Considering the head-
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The music here isn’t exactly pop-jazz (that suspect hybrid); it is closer to what program directors at radio stations call middle-of-the-road—that is, it’s not hot enough to wake anybody up and not goofy enough to put anyone to sleep. Klugh, on the recorded evidence, is capable if uninspired guitarist. He plays the acoustic, gut-string, “classical”-model concert instrument that doesn’t have the ring of a steel-string acoustic but does have some advantages in depth and warmth of tone. The selections here are generally ho-hum stuff, and they’re played accordingly.

JOACHIM KUHN: Hip Elegy. Joachim Kuhn (piano); Terumasa Hino (trumpet); Alphonse Mouzon (drums); others. Seven Sacred Pools; Santa Cruz; Bed Stories; and three others. BLUE NOTE LA-667-G $6.98.

Performance: Bad
Recording: Good

Have you ever listened to a record and wondered where you heard it before? Well, in this case you will probably wonder where you haven’t heard it before. “Please, if possible, listen loud (your neighbour will be grateful)” reads a producer’s note on the album sleeve. I submit that he will be unknowingly but eternally grateful if you don’t play it at all. C.A.
tive. Glenn Cronkrite's subtle percussion work and Bill Douglass's full-bodied, acoustic bass blend well with the leader's sensitive keyboard work, giving Isham a delicate foundation on which to build his improvisations. More Rubisa Patrol, please.

C.A.

HUBERT LAWS: Romeo and Juliet. Hubert Laws (flutes); orchestra. Undecided; Fortune; Guatemala Connection; and three others. Columbia PC 34330 $6.98, © PCA 34330 $7.98, © PCT 34330 $7.98.

Performance: Lush and languid
Recording: Very good

This is another Bob James production with strings, Gadd, Gale, McDonald, Faddis, a Brecker brother, and the obligatory voices in the background. Only the label has been changed: what we used to get on CTI we are now being served on Columbia. As regular readers of Stereo Review may have noticed, I have great admiration for Hubert Laws, and I even liked some of this sort of thing from his past. But Bob James has become as repetitive and boring as Burt Bacharach was before he faded away. Now that Columbia has promised to unplug some of its performers and return to real music, let's hope they give us Hubert Laws without the tedious trimmings. While we're at it, let's also hope that they find a better kind of glue for their albums; both my copies of this one were undone upon arrival.

C.A.

HERBIE MANN: Gagaku and Beyond. Herbie Mann, but "Gagaku and Beyond" is, on the whole, a fairly bland mish-mash of Far Eastern and not so far-out Western music, suggesting, perhaps, that gagaku is a music beyond which one should not go.

C.A.

JACO PASTORIUS/PAT METHENY/BRUCE DITMAS/PAUL BLEY. Jaco Pastorius (electric bass); Paul Bley (electric piano); Pat Metheny (electric guitar); Bruce Ditmas (drums). Blood; Vampire; Donkey; and six others. Improvising Artists 373846 $6.98 (from Improvising Artists Inc., 26 Jane Street, New York, N.Y. 10014).

Performance: Faceless
Recording: Very good

Neither his own album ("Jaco Pastorius," Epic PE 33949) nor his work with Weather Report has revealed to me why Jaco Pastorius should be regarded with any special interest. Here he is again, leading a quartet on Paul Bley's excellent little label, and, quite frankly, I find his playing so undistinctive as to be just plain dull. It does not help that Gary Burton's equally original guitarist, Pat Metheny, is on hand (also electrified, but never electrifying), and it's downright painful to find the excellent Mr. Bley drowning in this plugged-in morass.

C.A.

SOPRANO SUMMIT: Chalumeau Blue (see Best of the Month, page 93)

RECORDING OF SPECIAL MERIT

PHIL WILSON: Wilson—That's All. Phil Wilson (trombone); Al Cohn (tenor saxophone); John Bunch (piano); Milt Hinton (bass); Mousey Alexander (drums). Outrageous Mother; Nostalgia; Sleepy Time Down South; and three others. Famous Door HL-109 $6.98 ($7.50 postpaid from Harry Lim Productions, 40-08 155th Street, Flushing, N.Y. 11354).

Performance: Perfection—that's all

Trombonist Phil Wilson provided one of the highlights of Woody Herman's fortieth-anniversary reunion concert at Carnegie Hall last year. Listen to this album and you'll hear why. Possessing a remarkable technique and an extraordinary imagination, Wilson seeks his inspiration in the past (Teagarden and Dickinson), but his creativity is too great to

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Weill's "Three Penny Opera"

The New York Shakespeare Festival production of Kurt Weill's *Three Penny Opera* at the Vivian Beaumont Theater in Lincoln Center was not just another Three Penny, for it featured a completely new translation (from the German of Bertolt Brecht) by Ralph Manheim and John Willet instead of the well-known Marc Blitzstein version. Since producer Joseph Papp has made quite a point of this, it should be examined for a moment.

Any translation is a difficult business, and the translation of poetry, even (particularly?) a mere opera libretto, is especially so because of the problem of meter—its preservation is desirable (though often not possible) in poetry and usually absolutely necessary in opera. Apart from that, there are two schools of translation: one follows the letter, the other the spirit. Blitzstein, a poet himself, was a spirit man, so his translation hewed more to the spirit. Weill, a poet himself, was a poet, and his translation hewed more to the emotional content of the whole passage than to its individual words. This involved, among other adjustments, some bowdlerizing (in fairness, probably necessary for the American theater of the time) and even some out-and-out rewriting. The result was brilliant of its kind.

Manheim and Willet, who are engaged in translating the complete works of Brecht, are men of the letter—or at least so they claim. They do not have Blitzstein's skill at writing effective, singable, vernacular English, but they have restored some of the bawdiness, bitterness, and rawness of the original. Their claiming of greater faithfulness have in fact already been challenged—which probably proves only that Brecht's work has reached the status of sacred canon, a "classical" literature over which the scholars may now squabble. The real point about the translation is that it is inconsistent, rather ugly, full of an awkward, stilted sort of verbal gusto—and hard to sing.

Another unusual feature of the production was the choice of director. Richard Foreman was previously known as the creator of the Ontological-Hysterial Theater (Off-Off-Broadway with a vengeance) and as author-director of three unusual music-theater collaborations with avant-garde composer (Elephant Steps, an opera) Stanley Silverman. Quite logically, Silverman is the musical director of this production, and since there can be men of the letter in musical matters as there can be in literary ones, he has done a remarkable job of going back to Weill's original orchestration: two trumpets, two saxes, doubling on flute and clarinet, bassoon, trombone, percussion, piano, harmonium, celeste, accordion, cello, and bass—as well as guitar, banjo, and Hawaiian guitar (the last three played by Silverman himself). He has also gone back to the original high keys for their tension and bite, and they certainly have that here.

There are no greater singers as such in the cast—these are all singing actors—but the intensity of the performances more than makes up the difference (Brecht and Weill were not interested in beautiful singing and sometimes even preferred the naturalness and rawness of untutored voices). The voices are, as a matter of fact, much better served on the recording than they were in the theater, where the poor acoustics and the use of body mikes—now, unfortunately, almost standard in big musical productions—have the effect of isolating the actors from the audience as well as blunting this work's sharp musical edges. Here the intensity, the irony, the bitterness, the ferocity, the grotesqueness—and the humanity—come through in a very immediate, close-up way.

All this is reinforced by the tremendous dynamism of the musical direction. The orchestral quality is gripping—we have never really heard Weill's orchestration before, and it is simply a tremendous sound. In addition, Silverman's tempos and phrasing are electrically effective; the whole is equal in musical impact to any version, whether in German or in English.

The album includes short articles on the production by Papp and Silverman, a synopsis of the story, and complete texts of the songs. The recording is technically uncomplicated, and therefore effective.

Eric Salzman

**WEILL: Three Penny Opera**

Raul Julia, MacDowell, Caroline Kava, Polly Peachum; Ellen Greene, Jenny Towler; Blair Brown, Lucy Brown; C. K. Alexander, Jonathan Peachum; Elizabeth Wilson, Mrs. Peachum; David Sa- bin, Tiger Brown; Roy Brocksmith, Ballad Singer; chorus and instrumental ensemble, Stanley Silverman. COMMERCE © KSA 34326 $7.98, © KST 34326 $8.98, © KST 34326 $8.98.


What's the dumbest thing you can think of? Barry White and his Love Unlimited Orchestra? The all-star Christmas version of *Tommy*? Well, Russ Regan and Lou Reizner, the men responsible for bringing you those monuments of aesthetic overkill, have come up with something even dumber, the soundtrack to an as yet unreleased film entitled *All This and World War II*. What they've done, you see, is make a documentary about the Big War featuring a wildly variable bunch of artists (Roy Wood? Frankie Laine?) singing Beatles tunes with lugubrious Wagnerian accompaniment by the London Symphony Orchestra, and I can't remember a more horrendous idea so brutally executed. Considering that symphony string sections sound pretty silly playing blues riffs, and that in all of recording history there have been perhaps three cover versions of Lennon/McCartney that even marginally succeeded (face it: the Beatles' art was record-making, not songwriting), this is hardly surprising.

At any rate, to be fair, there are a few interesting things here. Rod Stewart's *Get Back* is typically raunchy and a lot of fun; Bryan Ferry's *Almost Straight She's Leaving Home* is much less objectionable than you'd imagine; and Frankie Valli's *Las Vegas runthrough of A Day in the Life* is a surreal classic in the same league with "Kate Smith Sings Led Zeppelin with the Tijuana Brass." And I'd like to think that someone was making a point by having Helen Reddy do "The Fool on the Hill." All in all, however, Regan and Reizner have done something I'd never believed possible; they've turned the memory of the Beatles into a bad joke, the punch line of which will be forthcoming in the Sgt. Pepper movie now filming with Peter Frampton as Billy Shears. I mean, like who said rock was dead? Really now, like who? S.S.
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BARRAUD: Symphonie Concertante for Trumpet and Orchestra (see MILHAUD)


Performance: Lyrical
Recording: Very good

BERLIOZ: Requiem, Op. 5. Robert Tear (tenor); City of Birmingham Chorus and Symphony Orchestra, Louis Frémaux cond. ANGEL D-S-60265 $3.98.

Performance: Melodramatic
Recording: Good

Leonard Bernstein made his Columbia recording in Les Invalides, site of the world premiere of Berlioz's noble masterwork, and Louis Frémaux's Angel recording is quadraphonic, but neither of these adds anything very substantial to a catalog that already contains recordings of the Requiem by Colin Davis, Charles Munch, and Maurice Abravanel.

The two new versions are at opposite ends of the interpretive scale. Bernstein exceeds the trained City of Birmingham Choir contributes the best choral singing I have ever heard in this work. Bernstein's French choristers have a wonderful, characteristically Gallic timbre, but they are no match for their British counterparts in refinement of intonation and balance. Bernstein has the better of the two tenors for the difficult solo in the Sanctus: Burrows has to strain even for slightly for his top notes; Robert Tear is just plain effortful in this department. But the best tenor is Robert Bressler in the Abravanel album.

As to recording, I recommend that quadraphonic buffs lend an ear to Abravanel's Vanguard album, which offers both a good performance and really excellent four-channel sound in the famous episodes for the four brass bands and sixteen trumpets in the Dies Irae. Whether Berlioz, given today's technology, would prefer the "surround," treatment of his brass choirs to a frontal position at the four corners of the main performing body is a matter for conjecture, but the surround is certainly well and effectively defined on Vanguard's SQ disc. Frémaux settles for the original Berlioz specifications, and the Angell four-channel sound is of the comfortably ambient type rather than overt surround. The very spacious acoustic of the Great Hall of Birmingham University adds to the effect and enhances the choral tone, while the tightness and harder sound of Les Invalides makes for somewhat greater clarity of orchestral detail in Bernstein's stereo performance.


Performance: Gorgeous fiddling, lacks momentum
Recording: Good

Kremer plays the Kreisler cadenzas; Milstein plays his own, and his performance is rather undistinguished.


Performance: Expert
Recording: Excellent

There is a remarkably ingenious program here underneath all the surface simplicity. Both composers were drawn to the guitar through close friendship with master guitarists—Segovia in the case of Castelnuovo-Tedesco,
Julian Bream in the case of Britten. Each is represented here by a song cycle with guitar accompaniment and an extended solo work for the guitar alone.

Stylistically, of course, the two composers have little in common. Castelnuovo-Tedesco was a classicist; his Six Songs from the Divan of Moses ibn-Ezra are pleasant in a neo-archaic manner, with simple choral accompaniments, and his Sonata in D is firmly based on the classic models. Neither work seems to attempt much beyond diversion. Bream’s Songs from the Chinese, on the other hand, attempt to endow textual matter of minimal poetic interest with musical substance, but the results are elusive and unmemorable. His Nocturnal is related—in mood at least—to the celebrated Serenade for Tenor, Horn, and Strings, but it is not nearly as haunting and is likely to appeal mainly to guitar specialists.

Marta Schelé is a cultivated singer with a basically attractive voice. Her enunciation is not always clear, but the fault lies partially with the difficult texts. To the extent I am able to judge, Josef Holeček is a fine guitarist. The ultra-clear recording, normally a blessing, reveals more mechanical guitar sounds than I care to hear, but the sharpness of technical detail and immaculate disc surface deserve praise in any case.

**RECORDING OF SPECIAL MERIT**

**BRUCKNER: Symphony No. 8, in C Minor.**

Berlin Philharmonic Orchestra, Herbert von Karajan cond. **DEUTSCHE GRAMMOPHON** 2707 085 two discs $16.96.

**Performance:** Formidable

**Recording:** Good

Until Bernard Haitink and the Amsterdam Concertgebouw recorded the Bruckner Eighth in 1970, Herbert von Karajan’s reading, done for Angel in 1958, had the field pretty much to itself for those who wanted a truly majestic stereo realization of this colossus among the Austrian master’s symphonies. Karajan’s new recording differs little in interpretative substance from his earlier one, which is to say that impressive architectural unity and awesome majesty of utterance are its major characteristics. Particularly notable in the new performance is the way it builds toward the finale, achieving the most convincing cumulative effect I have heard yet on discs. My only reservation about both the Karajan interpretations concerns a rather heavy-footed treatment of the scherzo, which always has properties that fairly much to itself for those who wanted a truly majestic stereo realization of this colossus among the Austrian master’s symphonies. Karajan’s new recording differs little in interpretative substance from his earlier one, which is to say that impressive architectural unity and awesome majesty of utterance are its major characteristics. Particularly notable in the new performance is the way it builds toward the finale, achieving the most convincing cumulative effect I have heard yet on discs. My only reservation about both the Karajan recordings concerns a rather heavy-footed treatment of the scherzo, which always has the point that basic musicianship depends on the modern instruments in the Buxtehude is equally effective, thus proving the point that basic musicianship depends on the instruments used. The choral sound for both is small and clear, and it is well balanced with the instruments. Especially noteworthy in the Buxtehude is the light, springy, almost dance-like quality achieved by tempo and articulation. The Nonesuch disc will be of special interest to the Bach lover for the Buxtehude treatment of two choral melodies, Wacht auf und Jesu meine Freude, that are so well known in the Bach settings. Although the performance is on modern instruments, great care has been taken to distinguish between the concertino and tutti sections, a practice not always indicated in the score but essential to the proper

**BUXTEHUEDE: Cantatas. Wachtet auf, ruft uns die Stimme; Jesu, meine Freude; Hertzlich lacht hab ich dich, o Herr.**

**Performance:** Intimate

**Recording:** Fine

We often read about how Buxtehude brought Italian warmth to the chilly atmosphere of Lübeck. Now we can actually hear it for ourselves in an unusual coupling of several of Buxtehude’s cantatas with Agostino Steffani’s Stabat Mater. The style of these two composers is amazingly similar; add the choral melodies to Steffani and you have Buxtehude, subtract the choral melodies from Buxtehude and you have Steffani. No matter what your arithmetical preference may be, the music of either is an exquisite example of intense devotion, a music that takes the composers above any doctrinal differences between Catholic and Protestant.

Besides juxtaposing an Italian and a North German, the Oryx disc also juxtaposes authentic early instruments in one work and modern instruments in the other. Both are performed in a chamber-music manner that is appropriate to the finely wrought textures of the music. Although the sound in the Steffani (played on old instruments) is “purer,” that achieved by the modern instruments in the Buxtehude is equally effective, thus proving the point that basic musicianship depends on the instruments used. The choral sound for both is small and clear, and it is well balanced with the instruments. Especially noteworthy in the Buxtehude is the light, springy, almost dance-like quality achieved by tempo and articulation. The Nonesuch disc will be of special interest to the Bach lover for the Buxtehude treatment of two choral melodies, Wacht auf und Jesu meine Freude, that are so well known in the Bach settings. Although the performance is on modern instruments, great care has been taken to distinguish between the concertino and tutti sections, a practice not always indicated in the score but essential to the proper

**UNITED STATES**

**LISZT: Annees de Pelerinage—Deuxieme Annee.**

**Performance:** Formidable

**Recording:** Good

Three Sonetti del Petrarca from the Deuxième Année, possibly his finest music of all. Bean’s performance of the three sonnets, as well as of his very best music and, in the case of the Liszt’s Années de Pérégrination contain some of his very best music and, in the case of the three Sonetti del Petrarca from the Deuxième Année, possibly his finest music of all. Bean’s performance of the three sonnets, as well as of his very best music, is consistently admirable, beautifully clean and reserved technically (he avoids flashiness), romantic in feeling but without prettiness, broad in dynamics, and noble in tone. He is aided by a particularly fine-sounding Steinway and an extraordinary job of recording by producer Marc Aubert.

**David Bean:**

**David Bean:**

David Bean is surely among the most under-appreciated pianists in the world today, something I can put down only to insufficient exposure of his artistry to the musical public. Certainly there is nothing in his playing that one can fault. He projects a musical personality of great virtuosity coupled with intellect, not the most immediately ingratiating combination, perhaps, but awfully impressive and in the respecte after Egon Petri and Edward Steuermann (with whom he studied). His recorded repertoire has been scanty thus far, but it includes a superlative coupling of Busoni and Villa-Lobos for RCA and an equally fine disc of Scriabin, Liszt, and Ginastera for Westminster.

Liszt’s Années de Pérégrination contain some of his very best music and, in the case of the three Sonetti del Petrarca from the Deuxième Année, possibly his finest music of all. Bean’s performance of the three sonnets, as well as of his very best music and, in the case of the three Sonetti del Petrarca from the Deuxième Année, possibly his finest music of all. Bean’s performance of the three sonnets, as well as of his very best music, is consistently admirable, beautifully clean and reserved technically (he avoids flashiness), romantic in feeling but without prettiness, broad in dynamics, and noble in tone. He is aided by a particularly fine-sounding Steinway and an extraordinary job of recording by producer Marc Aubert.

With full knowledge of impending complete sets of the Années by both György Cziffra and Lazar Berman and also remembering well Wilhelm Kempff’s marvelously poetic account of selected pieces (the mono recording currently on Turnabout, not the later DG), I still feel that anyone who hears David Bean’s recording will not want to be without it.

—James Goodfriend

**LISZT: Années de Pérégrination—Deuxième Année:**

Italie. Sposalizio; Il Penseroso; Canzonetta del Salvator Rosa; Sonetti del Petrarca Nos. 47, 104, and 123; Après une Lecture de Dante. David Bean (piano). WESTMINSTER WGS 8339 $3.49.
Ever since the invention of the recorded disc annoying "clicks" and "pops" caused by scratches, static and imperfections have consistently disturbed the listening pleasure of music lovers.

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HAYDN: Piano Sonata in F Major (Hob. XVI:23); Sonata in C Major (Hob. XVI:35); Sonata in A-flat Major (Hob. XVI:46); Sonata in G Minor (Hob. XVI:44); Sonata in D Major (Hob. XVI:37); Variations in F Minor (Hob. XVII:6). Gilbert Kalish (piano). NONESUCH H-71328 $3.98.


RECORDING OF SPECIAL MERIT

HAYDN: Piano Sonata in D Major (Hob. XVI:19); Sonata in G Minor (Hob. XVI:44); Sonata in D Major (Hob. XVI:37); Variations in F Minor (Hob. XVII:6). Gilbert Kalish (piano). NONESUCH H-71323 $3.98.


Pianists are finally turning to the long-neglected sonatas of Joseph Haydn and discovering their many beauties and jokes, their depth and freshness. This has become apparent to the record buyer from the many single records that are now available and from several series that will eventually bring us all these sonatas.

One of the most fascinating aspects of this revival is that performers are gradually beginning to realize that Haydn’s keyboard music requires a style of its own if its unique quality is to be brought out. Until recent years, the few sonatas that were played were treated as miniatures, charming openers leading up to the meaty Romantic repertoire. This approach makes the sonatas seem silly, and they lose their breadth and scope. Other pianists, having been through the stylistic difficulties of Mozart, applied that approach to these works. While theoretically logical, such an approach denies the pithiness of Haydn’s writing (for Mozart’s treatment of the piano is completely different) and frustrates the use of the entire instrument in the rich and varied textures he wanted. Of the two recordings under scrutiny, Vasso Devetzi takes the jolly-miniture approach and Gilbert Kalish takes the music for what it is.

Ms. Devetzi commands a clean, crisp technique and produces a rather dry sound which is in no way alleviated by her sparse pedaling. Apparently afraid of any Romantic overtones, she rushes through cadences in a manner that upsets the clearly constructed phrases of Classical structure. When she does indulge in a ritard, she never returns to the original tempo. Thus a single movement lacks the most important cohesive element prevalent in the music. There are also several stylistic practices she should be more careful about. For example, her trills are usually taken from the wrong note, which is a small point in itself, but placing ornaments before the beat upsets the melodic line.

Mr. Kalish’s readings of Haydn come off beautifully because he enters into the music without any preconceived notions and brings out what is there. He is especially successful in the grand dimensions of the first movement of the D Major Sonata (No. 19), in which his fluid approach to tempo and the ability to return to the original at points of structural importance bring out the breadth of the work. In the final movement we hear the romp that Haydn intended. Some of the fast movements lack brilliance because of too sensitive an approach, but the results of this style are breathtaking in the G Minor Sonata and the F Minor Variation. Of the many recordings of Haydn piano music I have heard lately, certainly Mr. Kalish’s is the finest.

S.L.


Performance: Blunt. Recording: Okay, but noisy surfaces.


Performance: Too long a trip. Recording: Spacious.

When Gustav Holst wrote his mammoth extraterrestrial suite The Planets, he had no idea (Continued on page 131)
Better than records

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Nakamichi 550
it was going to be the work that would bring him world renown, and later he sometimes wished better attention had been paid to his more neglected efforts. But The Planets, now recorded by just about every major orchestra on the boards, continues to be one of the most spectacular pieces in the repertoire. The Philadelphia Orchestra, that Rolls Royce of orchestras, would seem the perfect ensemble to offer a definitive performance of the suite in all its luxurious saturation of tonal color, yet this latest recording crosses no sound barriers. The barbaric rhythms of Mars, the Bringer of War, forecasting the coming brutalities of World War I, are not nearly warlike enough here, Mercury, the Winged Messenger pursues his errands about the sky too pertly, and the magic of Uranus is excessively suave. Only toward the end, in Neptune, as the sombre timbres of celesta, harp, and strings drown in a sea of women's voices, does this version of The Planets seem exceptional. The recorded sound is less than startling too, and the surfaces are rather less than silent.

What Patrick Gleeson has done to The Planets while tinkering with his Eu Polyphon ic—"not to be forgotten ever again." I was reminded of a child who used to be brought downstairs to stand in front of a console phonograph, sway back and forth in his Dr. Dentons, and growl out Beethoven's Fifth while the record played to the embarrassed appreciation of adult guests. It was a remarkable accomplishment for an infant, but why subject the public to it? So with this, the Eu, which Gleeson prefers for his experiments over the Moog, is an electronic miracle that has enabled the arranger here (over endless hours, no doubt) to imitate the sound of the orchestra remarkably well in Mars. As the work goes on, though, Gleeson seems to become bored with this adherence to the composer's intent and begins to intrude himself in the sky of sound, adding the kind of twitting science-fiction noises that have become all too familiar in recent years along with effects of ocean waves and thunder he no doubt imagined could serve only to "improve" the austerely majestic. No matter how many overtime hours he puts in at his madman's dream, he will never be a match for Holst's Orchestra. Tomita, whose earlier efforts, such as The Snowflakes Are Dancing, are among RCA's biggest sellers, offers another elaborate interpretation of the score on the synthesizer. In this one, more musicality is evident. There is a feeling of taking spaciousness in the sound of the journey, and a more successful attempt to adhere to Holst's own tonal palette. Tomita's prelude, placing the work in the context of a real space voyage complete with countdown, is unobjectionable fun. But, like Gleeson, Tomita cannot get out of the rest of the picture and succumbs too often to the temptation to embroider the music with all sorts of sci-fi effects, some of them rather heavy-handed. Moreover, the tempos he has chosen for the slower sections, Venus and Saturn, are so slow that the trip as a whole ends up seeming excessively long, even for the hundreds of millions of miles traversed.

The two synthesized versions of The Planets are reported in Billboard to be "in sales orbit" in this country, but having difficulty "soaring into markets elsewhere in the world."

The Holst estate has protested the electronic interpretations, and the United Kingdom's Mechanical Copyright Society has sent letters to rights organizations demanding that no recording licenses be issued for such albums, arguing that the score has not been recorded "substantially" as composed. The Holst estate may even try to get the albums withdrawn from the American market. A tragedy to the sales departments of Mercury and RCA, perhaps; a survivable loss for music.

P.K.

IVES: Songs. At the River; Eliégie; Ann Street; A Christmas Carol; From the "Swimmers"; West London; A Farewell to Land; Abide with Me; Where the Eagle; Disclosure, The White Gulls; The Children's Hour; Two Little Flowers; Autumn; Tom Soils Away; Ich grolle nicht; Feldseinsamkeit; Weil' auf mir; In Flanders Fields. Dietrich Fischer-Dieskau (baritone); Michael Ponti (piano). DEUTSCHE GRAMMOPHON 2530 696 $7.98.

Performance: Remarkable Recording: Excellent

In 1922, Charles Ives ruminated through his musical attic, collected 114 songs, and published them at his own expense. For years he wished better attention had been paid to his neglected efforts. But The Planets, now recorded "substantially" as composed. The recording is remarkable, offering an American listener. The singing is not beautiful, but even so this is a remarkable performance and recording. Perhaps nothing more neglected efforts. But The Planets, now recorded "substantially" as composed. The recording is remarkable, offering an American listener. The singing is not beautiful, but even so this is a remarkable performance and recording. Perhaps nothing more.

E.S.

LISZT: Piano Concertos Nos. 1 and 2 (see Best of the Month, page 90)

LISZT: Sonetti del Petrarca, Nos. 47, 104, and 131 (see SCHUMANNE)

RECORDING OF SPECIAL MERIT

MAHLER: Symphony No. 3, in D Minor. Marilyn Horne (mezzo-soprano); Women of the Chicago Symphony Chorus; Glen Ellyn Children's Chorus; Chicago Symphony Orchestra, James Levine cond. RCA ARL2-1757 two discs $15.96, CR25-1757 $14.95.

Performance: Opens windows Recording: Excellent

The Mahler Third Symphony is among the...
longest, most sprawling, and, along with the Seventh, the least-known of the nine or ten. It is one of the most complex and, at the same time, one of the most appealing. And it is perhaps the most ambitiously programmatic, although, as usual, Mahler made the program heroic-philosophical, not narrative, and later played it down (it is, of course, gleefully quoted anyway by all analysts and annotators).

The symphony has six movements (originally it had seven, but the proposed finale ended up as the last movement of the Fourth) organized as a personal credo and hymn of praise to inanimate and animate creation. This conception inspired some of Mahler's most wonderful music; in spite of its length, the work is heart-felt, colorful, and tremendously appealing almost all the way through.

The Third Symphony has not been neglected on recordings; there are notable versions by Bernstein, Haitink, Salvi, and Horenstein. But this one can stand with its predecessors in most respects. Mahler, more than any other composer (at least before the atonal moderns), labored mightily to write his interpretations directly into his scores. Essentially, Levine takes them at face value; he does not fuss. He is a tremendous craftsman, and he has a wonderful orchestra to work with, not to mention Marilyn Horne and a fine chorus of women's and children's voices. In a few places I miss a certain urgency. The conductor's tendency to sit back and let things take care of themselves is not ideal in the moments of greatest turmoil and passion. But the Third, Mahler's "Pastoral Symphony," is one of his least tormented and most outward-looking works. Levine succeeds in opening windows; he lets the fresh air blow in from this extraordinary panorama of forests, mountains, flowers, animals, and angels out of the landscape of Mahler's mind.

This RCA boxed set comes with a most unusual cover: a child-like visual fantasy by Maurice Sendak of an angel handing old Gus-tav a bouquet of wildflowers surrounded by animal musicians deep in a nocturnal fairy tale forest. Absurd and wonderful. E.S.

MASSENET: Le Cid. Placido Domingo (tenor), Rodrigo; Grace Bumbry (mezzo-soprano), Chimène; Paul Plishka (bass), Don Diego; Eleanor Bergquist (soprano), Infanta; Paul Plishka (bass), Don Rodrigo; Leonie Rysanek (mezzo-soprano), Chimène; Arnold Voketaitis (bass-baritone), Count de Gormas; Jake Gardner (baritone), King. The New York City Opera Orchestra, under Levine. CBS C 34211 three discs $20.98.

Performance: Domingo steals it. Recording: Excellent.

In late nineteenth-century France there was a taste for a kind of exotic realism, sweet and sensual but fitted out in the guise of high-class and moral art. The painter Gérôme is a good example; the writings of Loti are another. But this one can stand with its predecessors in most respects. Mahler, more than any other composer (at least before the atonal moderns), labored mightily to write his interpretations directly into his scores. Essentially, Levine takes them at face value; he does not fuss. He is a tremendous craftsman, and he has a wonderful orchestra to work with, not to mention Marilyn Horne and a fine chorus of women's and children's voices. In a few places I miss a certain urgency. The conductor's tendency to sit back and let things take care of themselves is not ideal in the moments of greatest turmoil and passion. But the Third, Mahler's "Pastoral Symphony," is one of his least tormented and most outward-looking works. Levine succeeds in opening windows; he lets the fresh air blow in from this extraordinary panorama of forests, mountains, flowers, animals, and angels out of the landscape of Mahler's mind.

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Performance: Domingo steals it. Recording: Excellent.

In late nineteenth-century France there was a taste for a kind of exotic realism, sweet and sensual but fitted out in the guise of high-class and moral art. The painter Gérôme is a good example; the writings of Loti are another. Bizet's Carmen is also an example, but the real master of the genre in music was Massenet. Vincent D'Indy expressed it perfectly when he referred to Massenet's "discreet and semi-religious eroticism." And that, not Spanish honor, is the real subject of Massenet's Le Cid.

"Le Cid"—El Seid, the Conqueror—was the nickname of Rodrigo Díaz de Bivar, the greatest legendary Christian hero of the medieval Spanish wars against the Moors. Of this epic subject, treated many times in literature, nothing much is left except the erotic es-

(Continued on page 135)
sence. Rodrigo, sworn to avenge an insult to the honor of his old father, kills the father of his fiancée, forcing her to demand his death, so he goes off to meet a heroic end in hopeless battle against the Moors. This apparently solves the problem except for an unforeseen circumstance: he wins and comes back a hero. At the moment of truth, Rodrigo offers to kill himself. Of course the young lady cannot permit such a thing, and her protestations are assumed to signify forgiveness of our hero.

Around this material, Massenet has draped his lightly sensuous music—like certain fashions, designed to reveal as much as it hides. The technique is the cliché. All the old operatic clichés are here: the stirring martial air, the air larmoyant, the jolly dancing peasants, the colorful religious ceremony, the chorus of townspeople, sword-play and oaths of vengeance, the celestial vision, the soldiers marching out to battle, and the victory celebrations. Massenet even manages to make the Wagnerian leitmotiv principle into a goldmine of clichés; he even inverts them. How ironic that, amidst all this, it is the silly ballet music for dancing peasants that has survived the best.

What really killed this kind of operatic sensuality-and spectacle was Hollywood. It is hard for us to take anything but a camp attitude now toward ancient tales of Spanish honor with fairy-tale trimmings and loud singing. At least Rodrigo could have killed his girl friend's father over something serious—say, violating his sister). And, of course, the revival of French grand opera is never an easy task; the tradition simply expired half a century ago. And yet, here it is back again, not just Le Cid, but Esclarmonde, and La Navarraise, and Thais, and Thérèse, and Lord knows what's waiting in the wings.

Eve Queler directed the Carnegie Hall performance in the spring of 1976 from which this recording derives. She has put together an orchestra that plays remarkably well and with real spirit and a good but quintessentially non-French cast. The focus in Massenet's opera is always the heroine, and, in spite of the title, the situation is no different here. Le Cid is titillating bourgeois entertainment of the most middle-brow sort, but a great Chimène can raise it up to an almost tragic-dramatic level. Grace Bumbry, although she touches a few musical heights, does not reach that kind level. Grace Bumbry, although she touches a few musical heights, does not reach that kind level. Grace Bumbry, although she touches a few musical heights, does not reach that kind level. Grace Bumbry, although she touches a few musical heights, does not reach that kind level. Grace Bumbry, although she touches a few musical heights, does not reach that kind level. 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Frederick Delius' "Fennimore and Gerda"

Though Angel surely does not expect that galloping droves of music lovers will be battering down record-store doors to obtain their copies of Frederick Delius' Fennimore and Gerda, the album is certain to delight the hearts of many opera lovers. With the release of this splendid recording, Angel now offers three of the Delius operas (Koanga and A Village Romeo and Juliet are the others) in superb performances.

Fennimore and Gerda was the composer's last opera, but when it was completed in 1910, the collection of "short, strong emotional impressions given in a series of terse scenes," as the composer himself described it, failed to enthrall Sir Thomas Beecham, still flushed with the success of his Covent Garden production of A Village Romeo and Juliet. The series of eleven stage "pictures" based on the Danish writer Jens Peter Jacobsen's novel Niels Lyhne apparently struck Sir Thomas as too realistic, and Fennimore and Gerda was not to receive its premiere performance until 1919 in Frankfurt.

Today, the work shimmers timelessly in its impressionistic setting with a formal strength that belies and transcends the evanescent subtlety of the score. The story of how the writer Niels Lyhne and his friend the painter Erik Refstrup vie for the love of the shallow, restless Fennimore is clothed in so much affecting music and framed by such exquisite interludes evoking the moods of nature that even the news of Erik's death, for example, is a perfunctory event compared to the atmospheric, wordless singing of the harvest hands at twilight.

The final episodes, in which the composer tampered with the novel's gloomy Nietzschean dénouement to offer Niels the solace of a new love in the adolescent Gerda, may be bad theater, but they inspired the composer to some of his most memorable orchestral writing—all we have usually heard of this opera.

Delius succeeded in Fennimore and Gerda in proving that an opera could be based on the lives of ordinary people, on conflicts confined largely to conversation, and some day the operatic public may catch up with him. Meanwhile, this flawless production is superbly sung in Philip Heseltine's English version of the composer's own German libretto with Elisabeth Soderstrom as the bored, wistful Fennimore (she also doubles as the smitten young Gerda), Robert Tear as the writer who weds Fennimore, and Brian Rayner Cook as the painter who loves and loses her. The Danish Radio Chorus and Danish Radio Symphony Orchestra under Meredith Davies are responsive to every nuance in a work made up largely of nuances. In SQ quadraphonic the results are especially radiant. A complete text is supplied.

—Paul Kresh

DELIUS: Fennimore and Gerda. Elisabeth Soderstrom, Fennimore, Gerda; Brian Rayner Cook, Niels Lyhne; Robert Tear, Erik Refstrup; Birger Brandt, Consul Claudi; Hedvig Rummel, Mrs. Claudi; Anthony Rolfe Johnson, a Voice Across the Water; Kirsten Buhl-Moller, Lady Visitor, Marit; Mogens Berg, Sportsman; Peter Fog, Town Councillor, Distiller; Michael W. Hansen, Tutor; Hans Christian Hansen, Councillor Skinnerup; Bodil Kongsted, Ingrid; Ingeborg Junghans, Lila; Eva Tamulenas, Maid servant. Danish Radio Chorus and Symphony Orchestra, Meredith Davies cond. ANGEL □ SBLX-3835 two discs $15.96.
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ROBERT W. MILLHAUD: Saudades do Brasil. BARRAUD: Symphonie Concertante for Trumpet and Orchestra. Roger Delmotte (trumpet, in Barraud); Orchestre National de l'ORTF. Manuel Rosenthal cond. InEx 995 (334) $7.98 (from HNH Distributors, P.O. Box 222, Evanston, III. 60204).

Performance: Alive
Recording: Very good

In the mid-Fifties, when Capitol released a recording of the Saudades do Brasil conducted by Millhaud himself, the composer wrote: "Although you don't expect from a composer the technique of professionals of the baton, I think it is worthwhile to have the composer's tempo and interpretation." His tempo for the Overture was markedly different from Rosenthal's here—much more deliberate and heavily accented, with a more insinuating effect. That point aside, Rosenthal, a still under-acknowledged master among professionals of the baton, does bring the music to life with an abundance of sparkle, panache, and overall evocativeness. The performance is sheer delight, and no matter that the title is misspelled on the jacket. The Symphonie Concertante composed by Henry Barraud (whom some of us tend to confuse with Henri Rabaud) in 1965, at age sixty-five, is one of the more substantial works of its kind to come from French composers in the last few decades, and certainly an accessible one. In the two outer movements the trumpet declaims in quasi-recitative style while all sorts of colorful events take place in the large orchestra; the slow movement is a mysterious, nocturnal aria cantabile. This too is given a most sympathetic and polished performance, and it stands up well in repeated hearings. Very good sound, quiet surfaces. R.F.

RECORDING OF SPECIAL MERIT

MOZART: Trinitas Mass (K. 167). HAYDN: Mass No. 5, in B-flat Major ("Little Organ"). Elly Ameling (soprano); Peter Panyavsky (organ); Vienna State Opera Chorus; Vienna Philharmonic, Karl Münchinger cond. LONDON SO 26443 $6.98.

Performance: Festive
Recording: Resonant

Although the Trinitas Mass lacks the elaborate operatic solo writing we have come to expect in Mozart's religious music, the chorus in it, when not used for massive declamation and fugal writing, indulges itself in many march- and minuet-like passages that add great charm to this festive work. The Haydn Mass, in contrast, is a miniature written in a chamber style. Despite its brevity, the music commands our attention through its simplicity and direct language. Münchinger employs a large battery of orchestral and choral resources, but the performance is a model of clarity. The choral sound is sumptuous in the chordally conceived choral parts, while in the fugal sections the individual parts take on a vividity that enables us to follow Mozart's youthful contrapuntal skills. Münchinger also helps keep the fugal sections clear by carefully marking the entries of the various thematic subjects employed. Besides these two contrasting styles, there is a third one of lightness and grace that brings out the composer's irresistible joy and good spirit. Especially fine is the balance between orchestra and chorus. The busy string parts, so often lost in a kind of mush in many performances, are right there, creating a sparkling aura around the chorus.

The Haydn work is treated more in the style of chamber music, which is certainly appro-

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preciate to this little charmer. Again clarity is the password. Elly Ameling's lovely singing of the Benedictus makes one wish that both composers had written more for her sort of voice. This record is superb in every respect.

S.L.

RECORDING OF SPECIAL MERIT

NIELSEN: Symphony No. 1, in G Minor, Op. 7; Symphony No. 2, Op. 16 (“The Four Temperaments”); Symphony No. 3, Op. 27 (Sin-

ners), Op. 17; Andante Lamentoso; Bohemian-Danish Folk Melody; Kirsten Schultz (soprano, in Symphony No. 3); Peter Rasmussen (baritone, in Symphony No. 3); Danish Radio Symphony Orchestra, Herbert Blomstedt cond. SERAPHIM SIC-6097 three discs $11.98.

Performance: Distinguished
Recording: Quite good

Shortly after a group of Danish sponsors enabled the Danish conductor Ole Schmidt to record all the Nielsen symphonies with the London Symphony Orchestra for Unicorn (RHS 324/30), EMI went back to Copenhagen to tape all of Nielsen’s orchestral works with the Danish Radio Symphony Orchestra—the orchestra that had first introduced this music to us in the early 1950’s—under its current Swedish conductor Herbert Blomstedt. As issued in England in 1975, the Blomstedt set runs to eight records and includes the three concertos and seven shorter works in addition to the six symphonies; the first segment to reach us is a three-disc set comprising the first three symphonies and three shorter works, an especially attractive proposition at the Seraphim price. The sound, in two-channel or four-channel playback, more than holds its own with Unicorn’s, and so do the performances, which are fervent of spirit and musically quite distinguished.

It happens that the only recordings of the First Symphony available now are those in the two “integral” sets. Schmidt’s is probably the least successful component of his cycle, disfigured by excessive gear-shifting and occasional quirkiness in phrasing, while Blomstedt is superbly unfussy, conveying a grand sense of cumulative power. His reading is especially attractive proposition at the Seraphim price. The sound, in two-channel or four-channel playback, more than holds its own with Unicorn’s, and so do the performances, which are fervent of spirit and musically quite distinguished.

Happily it happens that the only recordings of the First Symphony available now are those in the two “integral” sets. Schmidt’s is probably the least successful component of his cycle, disfigured by excessive gear-shifting and occasional quirkiness in phrasing, while Blomstedt is superbly unfussy, conveying a grand sense of cumulative power. His reading is more compelling than the excellent Previn version deleted by RCA a few years ago, and stands comparison with that of the authoritative Thomas Jensen, whose old London/Dec
cca recording has remained definitive all these years.

In the Second Symphony Schmidt shows greater flexibility in the first two movements, giving him a slight edge over Blomstedt’s relative rigidity in the first and what some will consider overdeliberate pacing for the “programmatic” second. The two are about equally persuasive in the slow movement, and Blomstedt pulls ahead magnificently in the finale. Blomstedt may be a shade less effective than Schmidt and some other conductors in evoking the atmosphere of enchantment in the Esputania’s pastoral movement (with the two vocal soloists), but, again, his forceful handling of the outer movements is just the way one wants this music to go, and in his hands the finale is a thoroughly convincing climax to the work.

Since there is no other recording of Helios available now, that work’s appearance in the Seraphim set is a further incentive to invest-

as well. If the remainder of his series is as fine as this set, the whole will represent not only the most convenient and economical, but simply the best way for anyone to acquire Niel-

sen’s orchestral works.

R.F.

ORFF: Carmina Burana. Celestina Casapietra (soprano); Horst Hiestermann (tenor); Karl-Heinz Strzycek (baritone); Leipzig Radio Chorus; Dresden Boys’ Choir; Leipzig Radio Symphony Orchestra, Herbert Regel cond. PHILIPS 9500 040 $7.98, © 7300 444 $7.98.

Performance: Forceful, lively
Recording: Good

ORFF: Veni Creator Spiritus; Der Gute Mensch; Concerto di Voci; Nanie und Dit

ymende; Vom Frühjahr, Oltank und von

Fligen. Czech Philharmonic Chorus; instrumental ensemble, Václav Smetáček cond. SUPRAPHON 11 1137 $6.98.

Performance: Well-drilled
Recording: Okay

Orff is much performed in Eastern Europe, undoubtedly because of the populist qualities of his ultra-simple style. This is at least the second recording released here of the Car-

mina Burana by Herbert Kegel and the Chorus and Orchestra of Radio Leipzig in East Germany, and, from the vivid style of the singing and playing here, it is obvious they are enjoying themselves. The solo singing is fair to middling; otherwise, though, this is a spirited and engaging performance.

I am not an Orff fan, and I always thought

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The Isle of the Dead, and the opening bars of Poe-Balmont-Rachmaninoff, does not match the shattering power brought to bear by the Russian forces in Kyril Kondrashin's 1966 re-recording issued by Melodiya/Angel. Despite its historically dubious plot, Queen Elisabetta was known merely as the opera whose overture Rossini conveniently borrowed when he was too lazy to write a new one for his Il Barbiere di Siviglia. (Actually, the original source was an even earlier opera, Aureliano in Palmira, so this is a twice-borrowed overture.) Now that we can hear all of Elisabetta, we can discover that the overture's crescendo section is used quite effectively in the opera's first-act finale. Those familiar with the music of The Barber will be amused to discover several precedents in this earlier score, among them the Queen's entrance aria, on which Rossini drew generously for Rosina's "Una voce poco fa."

Elisabetta was Rossini's first opera for Naples; its success there proved auspicious for the composer's spiraling career. He was only twenty-three at the time (1815), but he was no longer a beginner. No less than thirteen operas had come from his facile pen during the preceding five years, including La Cambiale di Matrimonio, II Signor Bruschino, Tancred, L'Italiana in Algeri, and Il Turco in Italia. It should surprise no one, therefore, that this newly discovered work is skillful, theatrical, and full of happy melodic invention. What is perhaps a bit disconcerting is the way Rossini's familiar buffo style is adapted to the needs of a "serious" opera. For example, the scene in which the evil Norfolk plans nefarious action to destroy his rival Leicester is set to music very similar to that of The Barber's highly comic ensemble where Figaro reassures the police that everything is normal in the Bartolo household.

Elisabetta is not a violent opera on the order of the Donizetti "English" tragedies. In its historically dubious plot, Queen Elizabeth... (Continued on page 142)
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ROUSSEL: Lanzoni may have been familiar with this way the King and Amneris receive Radames. Leicester's triumphant return from the Scotch exception ally fluent florid technique as well as fulgent top notes, while Ugo Benelli brings an Leicester with confidence, elegance, and re ble Matilde. Jose Carreras sings the role of main ornaments of the D'Oyly Carte Opera cally. Valerie Masterson (formerly one of the and, in any case, she is in sumptuous form vo- mens we do hear—and they are plentiful—are executed very capably by the uniformly good cast. Montserrat Caballé is a somewhat aloof-sounding Elisabetta, but then a queen is entitled to sound distant from her subjects, and, in any case, she is in sumptuous form vocally. Vallery Mestroni (formerly one of the main ornaments of the D'Oyly Carte Opera Company) is a pure-toned, altogether admirable Matilde. José Carreras sings the role of Leicester with confidence, elegance, and ref ugent top notes, while Ugo Benelli brings an exceptionally fluent florid technique as well as a freely produced light tenor to the role of Norfolk. All things considered, Elisabetta may not be topflight Rossini, but it is an important and highly enjoyable discovery.

By way of a footnote I might add that Leicester’s triumphal return from the Scot tish wars bears a strong resemblance to the way the King and Amneris receive Radames in Aida. And such salient phrases in both libretti as “giuova/erob” and “Quanto mi costì” suggest that Verdi and librettist Ghisl amanzoni may have been familiar with this opera. G.J.


Performance: Stimulating
Recording: Very good

Weissenberg’s Schumann has almost always been stimulating, and so it is here. Like Svi toslav Richter and Claudio Arrau in their record ings of the Symphonic Études, he gives us the five posthumously published variations as well as the standard set of twelve. Richter played these five “extra” variations after Var. V of the standard sequence; Weissen berg plays them after Var. IX; Arrau did not lump them together, but scattered them at various points in the work. This is worth mention ing, I think, because it seems to reflect a somewhat more thoughtful approach on Ar rau’s part, one which makes his Philips rec ording (6500.130) the most satisfying of all. Weissenberg’s performance is, in its own right, an extremely fine and persuasive one, with great dramatic sweep and yet a fine sense of organization. There is some conspicuous pre-echo at the start of side two, which both ers me less than the occasionally hard tone Weissenberg seems to favor. Arrau’s warmer tone and more expansive approach, in my ad mittedly personal view, suit this music particul arly well. His fill-up is a masterly account of Schumann’s Abegg Variations, Op. 1; Liszt’s Pèr Racch Sonnets may be more interesting mu sically, though, and Weissenberg presents them with a good deal of poetry. The enc lopedically oriented and/or duplication-con sciou collector, however, may be more at tracted to the equally distinguished perform ances available within the context of the Années de Pèlerinage—by Arrau, Brendel, Kempf, or Jerome Rose.


Performance: Eloquent
Recording: Excellent

Shostakovich’s oddly haunting, yet wryly hu morous Second Cello Concerto is the real business of this recording, Glazounov’s rath er innocuous four-minute Chant du Ménestrel serving as an incongruous prelude. Com posed for Matislav Rostropovich and first performed by him in Moscow, September 25, 1966, on the occasion of Shostakovich’s sixtieth birth day, the Second Concerto is a considerably more somber piece than the essentially ebullient First Cello Concerto (1959), also dedicat ed to Rostropovich. The work strikes me as a kind of expanded chamber music, bearing the familiar hallmarks of Shostakovich’s musical palette: broodingly lyrical discourse com bined with jocular commentary, woven together in a two-part contrapuntal fabric, and dotted with arresting brass, woodwind, and percussion punctuation. In common with much of Shostakovich’s late work, the con certo makes reference—mostly indirect—to his earlier work and the music of others.

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STereo Review

1976

REPRINTS NOW AVAILABLE

This useful, information-packed, and attractive (suitable for framing) feature from our July 1976 Bicentennial Issue is printed in four colors on 11" x 16" stock and includes Music Editor Goodfriend’s introduction. For your copy send 25¢ to: American Music Calendar, Stereo Review, 1 Park Avenue, New York, N.Y. 10016.
Some critics find this music dour. I do not. For me, the Second Cello Concerto ranks high in the canon of the composer's creative accomplishments, not only in terms of its fascinating combination and recombination of seemingly disparate ideas, but in the superbly resourceful scoring and brilliant writing for the solo instrument.

As for this recorded performance, I can hardly imagine a finer one. One must hark back to the achievements of Casals for an adequate comparison with the eloquence displayed here by Rostropovich. Ozawa and the Boston Symphony players clearly give their all and are accorded topnotch recorded sound by DG's production staff.

D. H.

SOUSA: Semper Fidelis; The Bells of Chicago; The Crusader; The Diplomat; The Beau Ideal; On Parade; The Stars and Stripes Forever; The Bride-Elect; The Directorate; The Gladiator; The Guide Right; The National Fencibles; The Occidental. Eastman Wind Ensemble, Donald Hunsberger cond. PHILIPS 9500 151 $7.98.

Performance: Powerful
Recording: Excellent

SOUSA: The Bride Elect; The Summer Girl; Mother Hubbard; La Reine de la Mer; The Charlatan; Nymphalin; The Red Man; Coquette; The Triumph of Time. Antonin Kubalek (piano). ANTILLES AN-7015 $4.98.

Performance: Pretty
Recording: Very good

Parade lovers who can never get their fill of the works of John Philip Sousa, the "March King," are bound to have a high old time with Philips' "Strike Up the Band," a brand-new collection containing a dozen spruce selections from the 140 marches Sousa left on paper at his death in 1932. In his liner notes, W. A. Chislett obligingly clears up the rumor that the March King hailed from Europe; his father was born in Spain (of Portuguese parents) and his mother was Bavarian, but John Philip's birthplace was our own nation's capital. For years he was director of music for the U.S. Marines, but he started his own band in 1892 and was never at a loss to supply it with a new item for the repertoire, from The Beau Ideal of 1893 to The Diplomat of 1904, a march dedicated officially to the Secretary of State at the time but secretly composed in gratitude to a cook who had served a tenderloin steak Sousa thought was the best one he had ever tasted.

Although it's sometimes an effort of will, despite such stories, to distinguish one bristling Sousa march from another, such stirring examples of the genre as Semper Fidelis and The Stars and Stripes Forever have more than earned their status as musical symbols of (Continued on page 145)

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MARCH 1977

CIRCLE NO. 11 ON READER SERVICE CARD
Wagner’s “Ring”
Complete on Cassettes

There was a year, in college, when I heard the final scene from the Solti recording of Wagner’s Das Rheingold at least once a month. I was co-proprietor of the loudest (although certainly not the best) stereo system on campus, and the tremendous din it was capable of making drew Wagnerites from all directions. The first Nibelungs-haunted petition appeared like a specter one Sunday afternoon bearing records. He begged five minutes of the “system,” got his Donner call, hammer smash, and thunder machine, and left with a grin of ecstasy on his face. So did the many others who followed him.

I don’t mean to make light of Wagner, Wagner recordings, or Wagner enthusiasts like my sonophile visitor. On the contrary, that first glimpse of Rheingold traumatized my vision of the Ring to the home listener, and he did not provide quite the bright blast of treble energy that is becoming common on the most modern recordings, but they were more than potent enough to make their point.

So, cassettes continue to strive along smartly, and perhaps their special advantages show up best in large-scale works such as these. This Ring (twelve cassettes plus the book) comes in a package hardly heavier and certainly no bulkier (5 1/4 inches wide, 9 1/2 inches high, 6 3/4 inches deep) than a basketball stack of nineteen discs that anyone with even a slight back problem would hesitate to lift. One cassette is roughly the equivalent of two discs, and when you open the handsome book (comes in a package hardly heavier and plumbless depths of Nibelheim. Stereo, which was brand new at the time of Rheingold (1958) and somewhat more mature when Walküre was completed (1965), is used with purpose, consistency, and considerable understanding. Tonal and reverberant qualities are monitored and shaped, from moment to moment, with manifest taste. The outcome is a recording that sounds—on a good or even moderately good sound system—richer, more vivid, more glamorous, and above all bigger than almost anything else I could name on records. True, it comes about as close to a live opera-house experience as a Cinerama production comes to a stage play viewed from the second tier. But evidently that was the whole idea.

So much for my general reaction; but how did the cassettes compare in individual details with the distinguished disc originals? Brilliantly! In fact, if it weren’t for my persistent pickiness, I’d be inclined to say there are no significant differences between the cassettes and the discs. But of course there are, even though they are minor. Dynamic-range compression has been used judiciously on the cassettes; when listening to them you’d hardly expect that the discs could get any louder, but then you make the switchover and, sure enough, they do. Also, the cassettes are a trifle hissier, but the Ring was, after all, a pre-Dolby recording, and the dominant hiss you hear from cassettes and discs is from the master tape. I did note some equalization differences, but these have no meaning in terms of recording quality. At one point in Rheingold, right after a side change, the differences reversed themselves, with the disc suddenly becoming slightly brighter than the cassette instead of the other way around.

I compared disc-cassette versions of Rheingold and Das Walküre, and had I thought of it in time I would have requested also a disc copy of Götterdämmerung, which has a multitude of cymbal crashes of the sort that was the nemesis of other cassettes. As it was, I had to sample the final scene on cassette with no standard for comparison. The cymbals did not provide quite the bright blast of treble energy that is becoming common on the most modern recordings, but they were more than potent enough to make their point.

A Harbinger of Things to Come?

...a package hardly heavier and no bulkier than a basketball...

Wagner: Der Ring des Nibelungen

Rolf Hodges

Wagner: Der Ring des Nibelungen. Birgit Nilsson (soprano); Kirsten Flagstad (soprano); Régine Crespin (soprano); Christa Ludwig (mezzo-soprano); Siegfried Link (tenor); Wolfgang Windgassen (tenor); Joseph Stransky (baritone); Hans Weisweiler (baritone); Dietrich Fischer-Dieskau (baritone); Gottlob Frick (bass); other soloists. Vienna Philharmonic Orchestra, Sir Georg Solti cond. London © RING S 5-1 twelve cassettes $135.

Stereo Review
American power over the decades, and they are all given exceptionally rousing, spirited treatment here, in the tradition set by Frederick Fennell, by the Eastman Wind Ensemble under Donald Hunsberger.

In addition to his marches, Sousa also managed to jot down the scores of ten operettas, fifteen concert suites, seventy songs, twenty dances, and four overtures. This is the sort of material Antonin Kubalek plays on the piano, in his own transcriptions, on the Antillies record called "Other Sides of Sousa." Some of the pieces, like The Bride Elect and The Charlatan, are also marches but smack more of the ballroom than the parade ground. Devotees of Sousa's style may find more charm than did this listener in such relatively gentle period pieces as The Summer Girl, Nymphalin, Coquette, and a suite of rather starchy waltzes called La Reine de la Mer. Everything is sparkingly played, however, and it's almost a relief to know that the March King had these other sides to his musical nature. P.K.

STEFFANI: Stabat Mater (see BUXTEHUDE)

JOHANN STRAUSS: Die Fledermaus. Hermann Prey (baritone), Eisenstein; Julia Varady (soprano), Rosalinde; Benno Kusche (bass), Frank; René Kollo (tenor), Alfred; Bernd Weikl (baritone), Falke; Lucia Popp (soprano), Adele; Ivan Rebroff (?), Prince Orlofsky; Ferry Gruber (tenor), Dr. Blind; Franz Muñoz who finds Leopold, Frosch, Bavarian State Opera Chorus and Orchestra, Carlos Kleiber cond. DEUTSCHE GRAMMOPHON 2707 088 two discs $15.96.

Performance: Very good, with one serious flaw
Recording: Excellent

There are many admirable things in this new Fledermaus. Carlos Kleiber conducts it with an irresistible bounce and elicits an orchestral performance that is elegant in tone, light in texture, and transparent in detail, with tempos that may not always sound "traditional" but are invariably effective. He works well with the singers, too, securing precise ensembles and insisting on a lightness of touch to match his own mercurial approach.

Hermann Prey has fun with the role of Eisenstein and communicates his enjoyment effectively. The part lies much too high for a baritone, but Prey has less trouble with the tessitura than most of his colleagues. Bernd Weikl is a strong and amusing Falke, René Kollo an expert if not particularly seductive-sounding Alfred. Benno Kusche, entertaining but no longer in prime voice, rounds out the male contingent.

Both ladies are excellent. Julia Varady—a soprano with a distinguished string of stage appearances to her credit but relatively new on records—has not yet grafted a personal profile on Rosalinde, but vocally she is a delight, and so is Lucia Popp as Adele.

Unfortunately, the role of Orlofsky was given to Ivan Rebroff, the well-known performer endowed with a phenomenal extension. He could have done the part using the sepulchral low range of his compass and brought it off amusingly. Instead, he chose to do it as a female impersonator with results that are vulgar, hopelessly unfunny, and downright unpleasant to listen to. There are always people who find such gimmicks entertaining (otherwise, how could they find their way into a production?), but for me the effect is lethal.

More Bavarian than Viennese in character, the performance observes the traditional cuts in the dialogues, and the role of Frosch is radically reduced (though ably performed by Franz Muñoz). The recorded sound is excellent.

RECORDING OF SPECIAL MERIT

VAUGHAN WILLIAMS: Fantasia on a Theme by Thomas Tallis; Concerto Grosso; Partita for Double String Orchestra. London Symphony Orchestra, Sir Adrian Boult cond. ANGEL © S-37211 $3.98.

Performance: Definitive
Recording: Rich
This is at least the fifth recording of the Tallis Fantasia by Sir Adrian Boult, whose authority as an interpreter of Vaughan Williams' music remains unique and yet, in this work especially, continues to deepen. There is nothing to be said about the performance except that it is possibly even more exalted and assuredly more richly recorded than its four predecessors. The two companion works, also for strings alone, are a good deal slighter but quite attractive in their own right. The Concerto Grosso, which is not otherwise recorded, proves to be of greater substance than one might expect for a work written for the Rural Music Schools Association's variously skilled string players in 1950. In the partita Sir Adrian's tempo for the opening movement is somewhat brisker here than in his earlier re-

(Continued on page 148)
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MISCELLANEOUS

WINEMAKERS, Free illustrated catalog of yeasts, equipment. Sempex, Box 122762, Minneapolis, Minn. 55412.

coordinating, and quite agreeably so; Angel's creamy sonic frame, however, tends to be a bit "homogenizing," leaving little of the immediacy that gave the third and fourth movements in particular such lively impact in 1959 recording. In all, though, this is a most distinguished release, surely as close as we shall come to a definitive statement of these works.

R.F.

WAGNER: Die Meistersinger von Nürnberg

(see Best of the Month, page 89)

WELL: Three Penny Opera (see Popular Reviews, page 124)

COLLECTIONS


Performances: Consciously natural

Recording: Blurred

Sweden is entering the early music scene more and more with Baroque music from Drottningholm and medieval and Renaissance music emanating from the castle at Wik. The Joculatories Upsalenses is basically a fine group with promise, as can be heard from this fine disc which dwells largely on the German repertoire with a smattering of other nationalities. The instrumental performances came off best, and the full ensemble of ancient instruments makes a splendid showing in such works as the Battle Pavanne from the Phalese collection of 1572. A novel and intriguing sound is offered by the use of a jew's-harp in the English Estampie. The vocalists, however, have not only pursued the current trend of using a natural voice production (as opposed to the bel canto approach of earlier groups) but have carried it to such an extreme that it comes out sounding like a parody of early music making. Although the performances are lively, there is an overall lack of rhythmic thrust caused by fuzzy articulation and perhaps aggravated by the accoustics of Wik Castle. Still, this group should be watched. Time will, I believe, iron out some of these sticky problems, which all ensembles of ancient instruments face at one time or another. And anyway, the cover picture of medieval laundry drying on lines outside the castle is a joy.

S.L.

RECORDINGS OF SPECIAL MERIT


Performance: Stunning

Recording: Excellent

THE MEDIAEVAL SOUND: Early Woodwind Instruments - Fifteen Medieval and Renaissance Dances, Songs, and Other Pieces; Music at Henry VIII's Court; Elizabethan Popular Tunes; Suite of Renaissance Dances. David Munrow (woodwinds); Christopher Hogwood (keyboards); Gillian Reid (percussion). CMS/OXYS EXP46 $6.98.

Performance: Excellent

Recording: Good

THE PLEASURES OF THE ROYAL COURTS: Music of Trouvères and from the Burgundian Court of Philip the Good, the Court of Emperor Maximilian I, the Medici Court, and the Spanish Courts in the Early Sixteenth Century.辰an Bowman (court organ); Early Music Consort of London, David Munrow cond. Nonesuch H-71326 $3.98.

Performance: Elegant

Recording: Clear

The sudden death of David Munrow last May dealt a bitter blow to the world of early music. Admittedly, this world still has some excellent performers, ensembles, and scholars left, but this young Englishman combined in one miraculous person the finest qualities of scholar and musician. Perhaps his most amazing talent was his ability to take any wind instrument into his hands and perform flawlessly upon it. His artistry is certainly borne out by this cache of records in which his playing is not only technically perfect but also imbued with a compelling sense of rhythm, lucid articulation, and, above all, an imaginative flair for ornamentation that lends life and breath to the simplest melody.

Of the three albums listed here, the two-record "Instruments of the Middle Ages and Renaissance" is a monumental achievement and will undoubtedly become the bible of organologists interested in actual sound and performance. Demonstrating some ninety instruments in over sixty pieces, the set is divided into two basic sections, the Middle Ages and the Renaissance, each with subdivisions of woodwinds, keyboard, brass, and strings. There is no separate section devoted to percussion instruments, but their sparkling sound is scattered throughout the album. Just about every obsolete and exotic music-making machine imaginable is represented here in various combinations, and each minute band contains an exquisite performance of a perfectly chosen work. Thanks to the cooperation of the Oxford University Press, the album includes a stunning book of about a hundred pages.
MARCH 1977

AND BARRY TUCKWELL: of them is a setting of the original Lope de Holm. A lyrical impulse—and perhaps the Debussy's Trois Chansons de Bilitis as its

Neither the Debussy nor the Ravel songs can be said to be over-recorded these days; the Milhaud—a witty and terse setting of poetry masquerading as an unpoetic trade catalog—is agreeable nonsense. Miss Schele's limpid tones are just as enjoyable in the French repertoire as in the Swedish, but her renditions of the Debussy and Ravel cannot match the stylistic rigidity of such predecessors as Jennie Tourel or Régine Crespin. The piano accompaniments are first-rate. disc surfaces are amazingly silent, and texts are supplied—a pleasing little package, all told, and I recommend it.

RECORDING OF SPECIAL MERIT


Performance: Superb
Recording: Excellent

All the works on this record exist in alternative versions for cello, the Saint-Saëns being the composer's adaptation of a movement from a suite for that instrument published as Op. 16. All but the Danzi have been recorded before in one form or another, and I have especially enjoyed the performance of the Beethoven by Hermann Baumann and Stanley Hoogland, but it is doubtful that any of this music has ever sounded so downright irresistible as it all does here. Without knowing the circumstances behind the recording, I would be willing to bet that Tuckwell and Ashkenazy did not just get together in the studio and start playing, but must have played these works together many times for their own pleasure: in any event, that is the impression these technically superb and warmheartedly expressive performances convey—that and a sunny sense of discovery in the case of the Danzi sonata, a work of considerable substance and charm in the Classical mold which more than holds its own in the company of the more familiar Beethoven and Schumann pieces. The recording itself is excellent, though close-focused.

VLADIMIR ASHENKAZY and BARRY TUCKWELL: downright irresistible music for horn and piano

Vega Cradle Song of the Virgin, the source of one of Brahms' Viola Songs.) Lars Johan Werle (b. 1926) is modern and experimental. His Nocturnal Chase makes little sense to me, but it is brief and quite enjoyable in a puzzling sort of way. The whole "Swedish" side is a refreshing experience, and the songs are sung with lovely tone and great sensitivity.

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Contributing Editor

Craig Stark

What do you get when you cross a father whose electrical know-how just suffices to change a light bulb with a mother who cannot abide the tension of unsolvable debate? Answer: an electronics technical writer who has spent much of his professional life teaching undergraduate philosophy. As I see it, somewhere in the Universal Circuit Diagram there must be a short-circuit to have got us to this point, for Linda Bordwell has been blessed with two marvelous children, a daughter, Dorothy, and a son, Craig. At present, the technical side of my nature coming to the fore, I earn my bread and cheese as a one-man business, Stark Electronics, evaluating products in my audio laboratory, doing technical and commercial writing, and making free-lance recordings.

Fell in with Stereo Review more than a decade ago, when Technical Editor Larry Klein was kind enough to break his standing rule about replying at length to readers' letters. In short order we got to know each other, my home system was featured on the masthead, and I began, from time to time, to forward some of his reader inquiries (on topics where I had done some work) to me. Having seen the carbon copies of my replies, Larry invited me to write an article for the magazine (on the subject of our initial correspondences), and "The Dynamic Range of Music" appeared in the June 1968 issue.

Even in those early days, while my interest in high fidelity covered all the components that affect music reproduction, tape was something of a particular specialty with me. So, when the "Tape Horizons" column began open in 1969, I landed on the Stereo Review masthead, where, of all the publications for which I have written, I most enjoy being.

—Craig Stark

每一份非核武器的爆炸物使用的战后。部长们的孩子（"秘书的帽子"）往往倾向于成为百万富翁，而且，另一个人，我第一次在采访中提到对调音器和接收器的警察询问，我们有理由保持我们自己的盐渍谈话，足够避免被一个三角洲人问及。从这个再简单不过的起始，我们发展着我对电子学的喜爱，以及随后搬到蒙特克勒，新泽西（在那里爸爸成为纽黑文的主教）。我成为了一个所谓"ham"无线电操作者，K2HGM（"国王2，他的仁慈的君主"），一个我变身为许多人每年选择的，写一份问卷调查，要么是由于我们演讲的，要么是由于我们演讲的，要么是由于我们演讲的，要么是由于我们演讲的，要么是由于我们演讲的，要么是由于我们演讲的，要么是由于我们演讲的，要么是由于我们演讲的。
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