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NOVEMBER 1977 $1.00

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Julian S. Martin
HI-FI STEREO BUYERS' GUIDE, March-April, 1976
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The Len Feldman Lab Report
TAPE DECK QUARTERLY, Winter, 1975
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New Equipment Reports
HIGH FIDELITY, January, 1976
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The Accutrac+6 doesn't drop records. Instead, it lowers them onto the platter.

When you play 6 records, normally they "plop" onto the platter.
Ouch!
But the new Accutrac®+6 is computerized to protect your records: no more "plop." Instead, it lowers the records onto the platter, v-e-r-y g-e-n-t-l-e.
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No other 6 record system gives you the record safety, convenience and control of the new Accutrac+6. But the truly incredible feature of the new Accutrac+6 is its low price. From under $300* for model 3500.
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*Price shown in this ad is approximate. Selling price is determined by the individual dealer.
COMING NEXT MONTH

HF's seasonal gift to you, dear reader, will be THE BEST OF 1977—that is, a special issue devoted to the phenomenon of excellence as manifested on the recording scene over the past year. We disclose the winners of the Tenth Annual HF/International Record Critics Awards; Editor Leonard Marcus, presiding at this year's session, held in the lush setting of the Dawn Patrol's Music, How Yes Plugged in at Madison Square Garden, and What Makes Arp Run. Genre Lees and John Culshaw continue their celebrations and cerebrations, plus laboratory test reports, and much more.

SOLUTION TO HIFI-CROSTIC NO. 29

C. A. Schick, Revolution in Sound

The jukebox provided a ready market for record manufacturers and functioned as a vital promotional vehicle. Top recording stars and producers of radio programs followed the jukebox charts in order to determine more accurately coming hits or "sleepers.

LETTERS

Queler vs. Harris

It is somewhat poor taste, in my judgment, for a conductor and a music critic to engage in such a vicious verbal battle as that in your "Letters" section [August] between Eve Queler and Dale Harris about the former's recording of Massenet's Le Cid. Although there are probably merits on each side, I believe that it is a disservice to exhibit such feelings in print. Goodness knows that there is enough strife in this world without artists and critics slugging it out in your enjoyable publication.

Richard Sights

Shawnee Mission, Kan.

The exchange of views between Queler and Harris illustrates the problem in reviewing operas. How does a company produce a recording of an opera that is complete and "alive" as well? Record companies should note prominently on the cover of an opera recording what cuts, if any, have been made and what version has been used. This is only fair and just. But achieving an "alive" performance is more difficult. As Kenneth Furie points out in his review of James Levine's La Forza del destino and Andrea Chenier recordings in the same issue. Most integral recordings seem perverted with dullness. At least Queler's performance of Le Cid is not dull, even if it is not complete.

I hope there is a solution, though I doubt it. Must the public always be forced to supplement a dull, complete studio recording with an "alive" incompletely pirated recording?

Jerome A. Murgula

New Springfield, Ohio

Furie vs. Solti

Kenneth Furie is to be congratulated for his very perceptive reviews of recent operatic releases. Of particular note were his views concerning the recent Flying Dutchman conducted by Georg Solti [August], which reinforced his "suspicion that the success of [Solti's] other recorded Wagner interpretations owes more to him than to him. Along with a growing number of other listeners with musical training, I have long felt that Solti is an inferior conductor vaulted to stardom not only by his superior orchestra, but also by the expert sound technicians and publicity organization of London Records. It is most gratifying to see that views consistent with my own position are beginning to appear in print.

Lawrence S. King

New York, N.Y.

The hatchet job on Solti's Flying Dutchman recording is your most unaccountable review since H. C. Robbins Landon did one on Eugen Jochum's Missa Solemnis back in 1973. (And that recording metamorphosed into one of HF's "Record Riches of a Quarter-Century" [April 1978]).

The unaccountable part is Furie's unrelievably nasty tone. He seems to have developed an intensely personal animosity for the Chicago Symphony and everyone associated with it. Just why is not clear—though there may be a hint in his sweet remarks about the Boston Symphony. Whatever his reasons, bile is not criticism.

Sundar Gururthy

Louisville, Ky.

I am both amazed and outraged by Kenneth Furie's vicious attack on Solti's magnificent new Dutchman. Although he can find "nothing to recommend it," I certainly can. The huge presence of the orchestra is thrilling; Norman Bailey's soliloquy is one of the most moving I have ever heard. And the Sailors' Chorus is pure delight! Indeed, Solti's is the most sonorous and exciting recording of this opera I have ever heard.

Jose Olivarez

Wichita, Kan.

Dale Harris's reply to Eve Queler's letter about his review of Le Cid was simply gallant. To claim that the fact that the tenor sings along with the chorus and soprano means that the conductor has rewritten the score is simply mad—and it is maddening as well. Doesn't everyone know about tenors and their ways? Doesn't Harris know that Domingo is one of the world's leading tenors and that Queler is not quite as important in the opera world? I imagine Massenet, with all of his experience in the theater, would hardly have been surprised or offended by such a minor display of egotism from a splendid tenor. Indeed, I imagine he would not have minded the cut of 637 bars (to think that Harris sat there with his piano-vocal score counting them) since, as Queler notes, it adds up to ten minutes or less of questionable music.

Queler seems to have a genuine understanding of and feeling for Massenet's music, and I look forward to hearing more of his music under her direction. I hope, as well, to never hear of Dale Harris again.

Roger Horn

Clanton, Pa.

Let me register a vote of confidence for Eve Queler and her efforts to make available, both in the concert hall and on records, some of the neglected masterpieces of opera.

Robert W. Upshaw

Simsbury, Conn.
As the number one professional speaker company, we have to satisfy the most discriminating ears. Recording engineers and artists. What they're listening for is faithful sound reproduction of a live performance. And for over forty years, that's exactly what we've been able to deliver.

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Although the circuitry details that follow on the Luxman R-1050 may be of primary interest to only the technically-oriented, they suggest the quality you can expect from each of our new tuner/amplifiers. Quality that is anything but ordinary.

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For high sensitivity, there's a dual-gate MOSFET front end. And for excellent selectivity, lower distortion and higher stereo separation, the IF stage has a special linear-phase filter array. Wide stereo separation—45 dB at 1 kHz and 40 dB at frequency extremes—is enhanced by a phase-locked-loop multiplex IC.

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The power amplifier is direct-coupled DC, in a true complementary symmetry configuration. This output design assures high phase linearity and excellent transient response in all three tuner/amplifiers. The

Suggested prices: Luxman R-1040 (top) $445, R-1120, $895

[Image of Luxman R-1040 and R-1120 tuner/amplifiers]
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LUX tuner/amplifiers.

basic difference lies in power output: 40, 55 and 120 watts for the R-1040, R-1050 and R-1120 respectively, minimum continuous power per channel, with both channels driven into 8 ohms, 20 to 20,000 Hz. At rated output, total harmonic distortion is no more than 0.05 per cent for the R-1040 and R-1050, no more than 0.03 per cent for the R-1120.

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As for how these tuner/amplifiers sound, here's what the British magazine HiFi at Home said about the R-1050: "...a high standard of performance...treble quality was light and delicate—something LUX engineers always seem to achieve...bass output seemed plentiful and strong, as is often the case with enormous, low impedance power supplies..."

If we've encouraged you to experience the sonic excellence of LUX, your next step is to visit one of our carefully selected dealers. We'll be pleased to send you the names of those in your area.

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Select what you want in a record cleaner.

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The value of a truly fine record cleaner is justified by the cost of replacing your record collection. Fifteen dollars is a small investment in long-term protection.

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More Audio Courses

I found Stephen Traiman's article, "Careers in Audio: Choosing a Course" [July] to be quite informative. You may be interested in knowing that the Ohio State University has a similar comprehensive audio curriculum leading to a baccalaureate degree. This program is interdisciplinary between the School of Music and the Department of Electrical Engineering and emphasizes the theoretical as well as practical aspects of recording.

Robert Y. Hare
Director, School of Music
Ohio State University
Columbus, Ohio 43210

We at Western Washington State College have developed courses on "The Physical Foundations of Music" and "The Science of High Fidelity." We attract a wide variety of students who otherwise would probably not take a physics course.

Beginning with simple discussion of mechanics, acoustics, and electronics, the course on high fidelity dwells mainly on the practical aspects of the components. We have a laboratory equipped with amplifiers, turntables, cassette decks, loudspeakers, headphones, oscilloscopes, and audio oscillators. Students perform experiments to gain an understanding of the specifications and performance of the components. These experiments include frequency response and directionality of a loudspeaker, frequency response of an amplifier (effects of tone controls, filters, etc.), record-playback response of a cassette deck, and evaluation of a turntable/amplifier/headphone system using a commercial test record.

Max R. Knittel
Western Washington State College
Bellingham, Wash. 98225

I should like to call your attention to the electroacoustics option we have within our electrical engineering program here at Michigan Technological.

We have two regularly offered courses in this program. The first is a survey course that covers the entire range of electro-acoustics starting from the principles of sound and extending through loudspeakers, microphones, and sound recording to electronic music synthesis. The second course is much more technical and deals mostly with transducer analysis and design. Considerable laboratory facilities are available. Additional course offerings are contemplated. More detailed information can be obtained through my office.

Richard F. Schwartz
Dept. of Electrical Engineering
Michigan Technological University
Houghton, Mich. 49931

Six fine speaker systems that can help you decide if you should own the Ditton 66 instead.

Not all speakers are deliberately designed to be as neutral and uncolored as are Celestions. This led one audio publication to say of our Ditton Monitor 66: "...may sound unspectacular, even disappointing to the untrained ear.

Of course. Speakers should not be "spectacular" or even impressive. They should be accurate, precise and faithful to the program material, rather than serve some designer's notion of what would impress the unwary or untrained ear.

If your ear is anything like this reviewer's, you too will hear: "...no thump or sizzle... just the neutral sound of musical instruments playing with nothing added by the speakers."

Nevertheless, tastes do vary. Thus, we have selected six fine speaker systems priced within the range of the Ditton 66. Any of them is likely to prove acceptable to a reasonably discerning listener.

Even against such respectable competition, we feel a goodly number of people will prefer the performance of the Ditton 66. Once you audition them, it's very likely that you'll agree. After all, they're our crowning achievement after fifty years as one of Britain's major designers and manufacturers of loudspeakers.

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The Ditton Monitor 66 by Celestion
Shown without black snap-on grille-cloth. 12" FC-12 woofer is acoustically coupled to the unique Auxiliary Bass Radiator (ABR) for distortion-free response at the lowest frequencies. MD-600 2½" soft-dome mid-range and HF-2000 soft-dome tweeter provide exceptionally smooth response, wide dispersion and correct phase relationships throughout the middle and upper ranges. Available in walnut or teak finish.

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When sonic perfection is the goal, sheer power is not enough. The new "double Dyna" STEREO 416 is—there is no other term—State of the Art. Double the number of output transistors in the most proven high power amplifier, Dynaco’s Stereo 400, to create the most advanced power house without a whisper of limiting. Absolute accuracy into the most difficult loudspeaker loads.

300 WATTS CONTINUOUS AVERAGE POWER PER CHANNEL INTO 4 OHMS*, and over 400 watts short-term continuous power per channel at 2 ohms. Circuits have been further refined with a switchable front end by-pass and close tolerance components for improved detail and smoothness. Two-speed fan cooling, rack mounting, and digital control LED readouts for the most accurate power monitors.

*Measured in accordance with the Federal Trade Commission’s Trade Regulation rule on Power Output Claims for Amplifiers.

Then add the ultimate: The C-100 Energy Storage System. This supplemental power supply reserve adds 100,000 microfarads of capacitance for perfectionist listeners who distinguish the subtleties of reproduced music that defy conventional specifications. A single C-100 quick-connected to the STEREO 416 improves detail and transparency from the lowest bass to the most delicate highs. At any volume setting from background music to all-out demonstration—if you know your sound, you won’t believe the difference.

Write for the new Stereo 416/PAT-5 BI-FET brochure. Ask your dealer for an in-depth demonstration. Don’t be switched.

If not available at your dealer, phone Mike Patrick collect at 609/228-3200, or write Dynaco, Dept. HF-11.

Copyright and Home Recording

After we went to press with our September issue, in which we published a letter from Don E. Ballard asserting that the authors of the new copyright law intended "no restriction of the traditional freedom of the hoaxer!" we received the following letter from Leonard Feist, who wrote the article that elicited Mr. Ballard’s comment.

Mr. Ballard is mistaken in his belief that the authors of the new copyright law intended that it not be applicable to the general pub-

"The Big Bands": Sorting It Out

Gremlins went to work on Gene Lees’s column about "The Big Bands" in our September issue, and the result was some inchoate scrambling of his quite coherent argument. We apologize to him and to any reader who encountered the virtual roadblock imposed by the jumble.

To straighten things out, we take up what Lees wrote at the opening of the third paragraph, which should have read: "But by the Twenties, bands were sitting down. Benny Carter, one of the most gifted soloists, composers, and arrangers of the period, recalled recently that when he played in the Charlie Johnson band it comprised three trumpets, two trombones, three saxophones (two altos and a tenor), and four rhythm instruments, including the tuba functioning as bass. Not until the bands forgot their am-bulatory origins did the string bass, a more flexible and pulsating instrument, become the rhythmic and harmonic footing on which all bands since have built their walls of sound."

And in the following paragraph, the fourth sentence should have read: "The qualification of 'explicit rhythm' (Henry Pleasants’ term) will not suffice, since it is present in many other forms of music, including the Brazilian samba, which is not jazz even though it shares its ancestry and interacts with jazz readily."

Our Department of Educational Media offers the following courses during the regular term and, in shorter form, in the summer session:

Audio Systems Techniques—Introduction to the use of sound systems. Provides experience with sound recording, tape duplication, public-address systems, tuners, cassette and reel-to-reel recorders, equalizers, and synthesizers.

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Dramatic ST550 engineering repositioned all three drivers: to make sure sounds from each travel exactly the same distance, to reach the ear at exactly the same time. Add in our extensive crossover redesign, and goodbye, time/phase distortion!

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We may have to call it our "second best," but you don't. And many won't. There's a lot of clear crisp sound, and a bold new look in the ST525.

And being more affordable than our best (not to mention other name brands) makes our value second to none.

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Ultradimears 

November 1977

CIRCLE 67 ON READER-SERVICE CARD
The thrust of copyright remains as it has always been: applicable to all who use protected works whether commercially for profit or privately for pleasure. The public is subject to all its provisions unless specifically exempted. I had hoped that my article had made that clear.

Apparently some have seized upon one section in the report of the House Judiciary Committee on the antipiracy law of 1971 as a basis for their belief that "hobbyists" can make copies of recordings for their own use without violating the law. That section says, in part, "it is not the intention of the Committee to restrain the home recording. from broadcasts or from tapes or records, of recorded performances, where the home recording is for private use and with no purpose of reproducing or otherwise capitalizing commercially on it." There have been no "judicial interpretations" of the antipiracy law, itself an amendment of the Copyright Act of 1909, as it relates to home recording or of what effect is to be accorded the House report in view of the other provisions regarding the exclusive rights of copyright owners.

In any case, in October 1976 a completely revised copyright law that supersedes the 1909 law was signed by President Ford. The antipiracy amendment has been picked up in the new law but—and this is the crux of the situation—there is nothing in the text of the law or in any of the accompanying reports that makes mention of an exemption for home recording. There is no section relative to home recording in any report on the 1976 General Revision and thus that commentary is obsolete. In the absence of a specific provision, there can be no support whatsoever for a contention that home recording is legal.

The law lists the exclusive rights, including the right of reproduction, and then exemptions are detailed. In the entire list of exceptions there are only two relating to recordings. The first, Section 115, is the compulsory license for making and distributing phonorecords. The only one that's relevant to this discussion is Section 114(b), which concerns the right of reproduction in connection with recordings included in educational television and radio programs distributed by or through public broadcasting entities.

Nor can those who might share Mr. Ballard's opinion take comfort from the "fair use" provisions of the 1976 law. The four criteria for determining if reproduction of phonorecords is an infringement include the "effect of the use upon the potential market or value of the copyrighted work" as well as "the amount and substantiality of the portion used in relation to the copyrighted work as a whole." Thus, "fair use" provisions give no even a vague sanction to home recording and, in fact, would seem to prohibit it, both as to the copyrighted work and to recordings themselves if made after February 15, 1972.

Ax to Grind?

In his critique of a recording of the Beethoven Woldstein Piano Sonata [June], Harris Goldsmith accuses Emanuel Ax of "a carelessness in the left hand at bar 104 of the first movement." The Ricordi edition of the Beethoven sonatas discusses this chord at great length and notes that Czerny suggested that possibility Beethoven himself considered changing it after sonata's publication in 1805. It is hard to believe that a pianist of Ax's stature would "carelessly misread" this chord: surely he would play it this way only after careful consideration. I think Mr. Goldsmith owes him an apology.

Mrs. Marvin Taxman
Omaha, Neb.

Mr. Goldsmith replies: The variant in question is unmentioned in the Henle urtext, the original Schenker (reprinted by Dover), the revised Schenker-Ratz (Wiener Urtext, Universal), and the Schubert (Sinn and Schuster)—beyond all doubt the most reliable and respected texts available of the Beethoven piano sonatas. My curiosity was aroused, however, and I decided to check the point. The editor of the Ricordi text, Alfredo Casella, indeed gave the cited (mis)reading—without explanation—as a marginal note, along with myriad suggestions on how to simplify or fake other details. Krebs says in his footnote to the Kalmus urtext that while there was no suggestion to print the A flat in the text, some players might want to opt for it on Czerny's say-so. However, Von Bulow, editor of the
No other speaker has ever looked like this, no other speaker has ever been built like this. And we believe no other speaker, regardless of size or price, can recreate the impact and feel of live music like the Bose 901 Series III.

It is a speaker unlike any other.

In one page we cannot begin to describe the 901 Series III and the technology behind it. So we've put together a comprehensive literature package that includes a detailed 16-page color brochure, a 20-page owner's manual, and a copy of Dr. Amar Bose's paper on "Sound Recording and Reproduction," reprinted from Technology Review.

To receive this literature, send $1.00 to Bose, Dept. HF II, The Mountain, Framingham, Mass. 01701.

Patents issued and pending. Cabinets are walnut veneer.
While others are reaching for this technology, Sony brings it within your reach.
It takes a sharpened sense of technology to deliver innovation at sensible prices. Who else but Sony could manage it? We know turntables backwards and forwards. Even as far back as 1966, we were surprising people with our developments: that one, the application of a slow-speed, servo-controlled motor to turntables.

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

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

**The X-tal Lock.**

**X-act speed accuracy.**

Good as it is, a traditional servo system has two flaws. When playing a record for a long time, it heats up and you're continually forced to correct for speed drift.

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

Sony's X-tal Lock system cannot be accused of any of the above. Its quartz generator serves to regulate the servo. The speed is electronically locked in. Impervious to changes in temperature, load, or voltage.

Quartz can help Bach. Quartz can help rock.

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

Sony's new motor gives brushes the brush. The ring shaped permanent magnet rotor and fixed coil windings eliminate cogging.

The torque is high—and that's not just talk. Its rotation is smooth, and startup, quick.

---

**Sony's Speed Monitoring System.**

**Like millions of tiny State Troopers.**

The X-tal Lock system is worth x-actly nothing, unless the right information is relayed to it. Our system uses a precise magnetic pulse signal, recorded on the outer rim of the platter. An 8-pole magnetic pick-up head receives it. Then transmits it to the servo electronics.

Most systems base their information on only one pole. By using 8—and averaging them—we get above average accuracy.

**Want functional controls? The case is closed!**

Sony believes a dust cover should live down to its name—it should stay closed, protecting record and turntable from dirt. You have immediate access to the controls without lifting the cover. (On the X7 and X6, the controls are touch sensitive.)

There's a lot more built into these machines; a lot more reasons to look into them.

A safety clutch mechanism protects the tone arm against damage, should you grab it while in motion.

And on the X7 and X6, an optical sensing system is included. It automatically returns the arm at record's end. (In the X7, a carbon fiber tone arm.)

What's more, these turntables are worth more dead, than alive. Because their cabinets are made from an acoustically dead material. That way, acoustic feedback caused by the speakers can't come back and make the cabinet vibrate.

Vibration is also cut by our thick rubber mat, and heavy aluminum platter. Viscous filled rubber feet give vibration the boot as well; the same viscous material fills the rubber mat on the PS-X7.

All this, so while you're vibrating to the record, your turntable isn't.

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

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

Cartridges are not included.
old Schirmer edition, calls the variant "wholly unauthorized" and adds that "this chord of the sixth would sound very weak and flat."

That Beethoven sometimes made changes in his compositions is well known. The change in dynamics at bars 321 et seq. in the Waldstein's third movement is a case in point. So is the change from F flat (in the manuscript) to F natural (in the first printed edition) in the first movement's bar 101—the very next measure, incidentally, to the one under discussion. In such cases performers may accept whichever version they prefer. Not so in this instance. Czerny's alleged conjecture that Beethoven may have wanted to make the change doesn't hold water. He could have made the change and didn't. Nor should the fact that Czerny was Beethoven's contemporary be allowed to lend authority to his transgressions. Another contemporary saw fit to publish the first edition of the G major Sonata, Op. 31, No. 1, with two spurious, meretricious measures that the composer later repudiated. There has never been a shortage of minds who arrogantly seek to "improve" the work of a genius.

No apology is in order. A careless misreading of a single note is an unwitting gaffe. And perpetuate a long-discredited editorial oversight, far more forgivable than an intentionally attempted attempt to revive and perpetuate a long-discredited editorial gaffe.

Separates or an integrated unit?
Don't you owe it to yourself to seriously consider the alternatives?

A complete home stereo system built around a Phase Linear power amplifier and a Phase Linear preamplifier, is now within the reach of every serious listener. The development of the new Phase Linear 200B power amplifier makes this possible. In combination with the 2000 preamplifier, the 200B provides the nucleus for an awesome, medium-powered stereo system. The increased dynamic range, faster transient response, lower distortion and greater flexibility make the Phase Linear System 200B a serious alternative to comparably priced systems built around integrated components. For those who are serious about acquiring state-of-the-art performance from a medium-powered high fidelity system, we present the Phase Linear System 200B. The serious alternative.

The new Phase Linear 200B power amplifier is a handcrafted, reliable amplifier with outstanding sonic performance in the tradition of the famous 700B and 400 models. Power output: 105 watts per channel, minimum R.M.S. at 8 ohms from 20Hz to 20kHz with no more than 0.25% total harmonic distortion. Hum and noise: 100dB below rated power.

The Phase Linear 2000 preamplifier is one of the quietest preamps ever made. Signal to noise ratio: 74 dB below 10mV Total Harmonic Distortion: 0.1%. Variable ambience injection circuit recovers music lost with most preamps.

Sibelius' Legends

In his perceptive review of Sibelius' Four Legends, Op. 22 [July], Abram Chipman remarks that Okko Kamu "seems to be the first conductor to record the Legends in the order of publication." At least one previous recording does so: Melodiya D 04726/7. Dating from the early 1950s, this account is conducted by Tauno Hannikainen, whose Karelia Suite is given enthusiastic mention in Mr. Chipman's review.

For my money, the Hannikainen recording of the Legends is the best (despite the tubby sound) and worth scouring the import shops for.

Ciani on Records

After reading the letter on pianist Dino Ciani from Henry Schultz [July], I am moved to write to request more of his recordings in this country. Several Deutsche Grammophon discs, including some fine Debussy, are readily available in Europe.

I was overwhelmed by Ciani's artistry. In 1973, I heard his recital at the Maggio Musicale in Florence and his technique and depth of feeling were unforgettable.

William Knopf
Sausalito, Calif.

Matrix H

Not everyone shares American apathy regarding quad sound: It seems our British friends are fighting to keep the medium alive. This is evident in the recent tests run by the BBC of its new Matrix H quad-encoding system. I'm fortunate to have heard some of them.

Essentially, Matrix H is similar to QS in concept. The difference is a 60-degree phase shift in the right channels. A simple converter device is available in the U.K. to provide this shift and thus decode Matrix H correctly when using QS equipment. The difference, however, is minimal.

The tests featured programs of classical, jazz, and pop music, as well as spoken drama. The sound was consistently clean, with excellent separation. The BBC's engineers did a fine job of mixing and encoding.

Records in Matrix H are in the offering as well. The BBC's own record division plans some quad releases in this system, and other British record companies are likely to follow suit. Perhaps some American companies will also. Time will tell.

Jay L. Rudko
Elmendorf AFB, Alaska

Vittorio Weinberg

I enjoyed Andrew Porter's review of Madame Butterfly with Margaret Sheridan [May]. I may be able to contribute some information on Vittorio Weinberg, who sings Sharpless, that Mr. Porter is not aware of.

Weinberg must have had a varied career prior to the time that I knew the gentleman, but his career in the U.S. was limited, so far as I know, to the San Francisco Bay area. I met him in the late '40s and early '50s per-
If you want beautiful loudspeakers, you could buy Bolivars on their looks alone. But that's not really what makes them so great.

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STR-130—RIAA Frequency Response Test Record—Provides spot and sweep frequency measurements for response testing and calibration of professional and consumer record reproduction equipment. $15.00

STR-140—RIAA Pink Noise Acoustical Test Record—By use of bands of noise rather than pure tones, standing waves are minimized, permitting the testing and adjustment of loudspeakers in the room in which they will be used. $15.00

SQF-1100—Quadraphonic Test Record—For the verification and adjustment of professional and consumer record reproduction equipment. $15.00

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Portamento

I was delighted to read Andrew Porter's intrepid defense of string portamento in his review of the reissued Subaño Marimba Butterfly [May]. String players and conductors have learned to avoid this technique, just as most critics (those arbiters of public aesthetic opinion) have learned to scorn it as both anachronistic and symptomatic of tasteless sentimentalism.

As Mr. Porter intimates, however, use of portamento, which did not die out until after World War II, can be heard in recorded performances in increasing amounts as one goes back in time and the date of the recording approaches the turn of the century. It is used in abundance not only in prewar recordings made by those players whose technique was rooted in and reflective of late nineteenth-century performing traditions (e.g., Kreisler, Thibaud, Marie Hall, Casals) and those conductors whose early careers were closely associated with composers of that period (e.g., Nikisch, Walter, Toscanini, Mengelberg, Kajanus, Beecham), but also in recordings made by those composers whose periods of creativity began in the nineteenth century but who lived long enough to commit performances of the own music to disc well into the electrical era (e.g., Richard Strauss, Mascagni, Elgar, Rachmaninoff). From all of this, it would seem apparent that the late Romantic composers conceived of their music as being performed and interpreted with portamento interpolated into the string parts. To rob such music of this device in present-day performances is to deprive the score of an important stylistic element.

George A. Locke
San Francisco, Calif.

Welcome Changes

I just wanted to let you know that BACKBEAT is a welcome addition to HIGH FIDELITY. I enjoy the "business" articles and the equipment reviews especially.

I also appreciate your return to the present binding method. This puts the MUSICAL AMERICA section into one compact place: the old divided format was a bit of a nuisance.

Glenn W. Harris
Falls Church, Va.
1976: ADC CLAIMS THE XLM MK II SHOWS "NO PERCEIVABLE WEAR OVER THE LIFE OF A RECORD" AND PROVES IT.

1977: ADC CLAIMS THE NEW ZLM WITH THE ALIPTIC" STYLUS HAS EVEN LOWER WEAR AND BETTER PERFORMANCE. AND PROVES IT AGAIN.

Introducing the ADC ZLM cartridge with the ALIPTIC stylus. It's a revolutionary new cartridge design that has taken the state of the art a giant step closer to the state of perfection.

Because of last year's XLM MK II record wear test results, we confirmed our thinking on how to design the perfect stylus tip shape. It combines the better stereo reproduction of the elliptical stylus shape with the longer, lower wearing, vertical bearing radius of the Shibata shape. The result is our revolutionary new ALIPTIC stylus.

And that's only the beginning. The ALIPTIC shape is polished onto a tiny .004" x .008" rectangular nude diamond shank, which has reduced the tip mass of the XLM MK II by an incredible 50%. This tiny stone is mounted on our new, tapered cantilever, which reduces effective tip mass even further.

The XLM MK II tests also proved the importance of tip polish in reducing record wear. So the ZLM is polished with a new, more expensive, more effective patented polishing method.

The ADC XLM MK II has long been known for its uncolored, true sound reproduction. The ZLM goes even further. Sound reproduction is completely open and spatial. And individual instrument placement can now be identified with even greater ease.

The ZLM tracks between 1/2 and 1 1/4 grams. Frequency response is ±1dB to 20kHz and is flat to even higher frequencies, out to 26kHz ± 1 1/2dB.

As you can see, by reducing the tip mass even further, we've come closer to the ultimate in pure sound reproduction. To prove it, every ZLM comes with its own individual frequency response curve signed by the ADC technician who tested it.

This means that the ZLM cartridge will reach every sound lying dormant in your records, transmitting them faithfully through your hi-fi system without altering the sound or the health of your records.

Not only do we think the ZLM is one of the most exciting cartridge designs to come along in years, but we can prove it.

Superior performance we can prove.
FOR EVERY SYSTEM WORTH MORE THAN $500

If you've invested $500 or even $5000 in your high fidelity system, read on. Because what we have to say can have a lot to do with the quality of sound you're hearing.

Unfortunately, one of the most overlooked components in a fine sound system is the cartridge. And all too often, it can be the one place where you skimped on quality. (Out of sight, out of mind, as they say).

We sincerely believe that an investment in a Sonus cartridge will truly surprise you with the way it improves the quality of your record reproduction. The analytical quality of the Sonus brings out the inner voices of complex musical passages clearly and cleanly. Listening fatigue disappears.

But what we're talking about is said even better by Sonus owners. “Excellent clarity,” “more fulfilling sound,” “open, airy 3-D sound,” “superb depth and definition,” “clean, accurate and transparent sound,” are typical of thousands of enthusiastic comments we have received from owners of Sonus cartridges.

Make sure your cartridge matches up to the rest of your system. Write us for further information and the name of the Sonus dealer nearest you.

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Confessions of an Allergic Producer
by John Culshaw

LONDON—I have been reading some dreadful reports about what can happen to those whose profession requires them to listen to high-decibel pop music for long periods. It seems that many of them go deaf before they are twenty-five, which is at least two years before the anticipated retirement age in that particular world. To the best of my knowledge no such affliction comes upon classical-music producers, if only because most of them are aware of Culshaw's First Principle of Recorded Sound, which states that anything, no matter how bad, will sound good if played back at a very high level for a short time. Thus classical producers tend to play back at an optimum level, high enough to drive the speakers efficiently but not so high as to sever the faculty of aural judgment.

Yet classical producers are not immune to other, horribly insidious maladies. In my very early days I produced a 78-rpm version of Bach's cello suites played by Enrico Mainardi that, at the outset, seemed like a very enjoyable project because the suites are marvelous and Mainardi was an enchanting man. But by the end of the second of six days I was going quietly insane during out-of-session hours by the sound of another cello playing incessantly in my head. Moreover, it was not playing Bach, but some mad, endless invention of its own that nothing would dispel until Mainardi picked up his cello and started the next suite. That, at least, was a temporary affliction; but there are much worse things, like allergies, which the classical producer can easily develop.

Shortly after the Mainardi incident British Decca began to cut its first LPs. Since it had not yet acquired a tape machine, the method used was to dub directly from 78s, which meant lining up a row of turntables so that the end of one 78 side could be made, with luck, to dovetail with the start of the next. It was a perilous process, for if I gave a wrong cue or the operator whose job it was to "drop" the next pickup was a fraction early or late, or if the pickup skipped a groove or one turntable was even marginally different in speed from its predecessor (or about one thousand other things, now that I am thinking about those dreadful days again), there was nothing to do but go back to the start. And at the end of it all you had only produced one 33-rpm lacquer, whereas the factory always required at least two, so even after a successful run you had to do the thing all over again. I reckon that I heard Rimsky-Korsakov's Scheherazade and Bartók's Concerto for Orchestra more times in six weeks than anyone else has heard them in a lifetime, and I have been allergic to...
Last year, Technics gave you everything you wanted in direct drive. This year we're giving you less.

Introducing three new Technics turntables: The SL-1600 automatic, the SL-1700 semi-automatic and the SL-1800 manual. All with the Technics direct-drive system. The system FM stations use and discos abuse. And all with performance specs even better than last year’s.

**Less Acoustic Feedback.**
This year we did more to give you less acoustic feedback. With Technics double-isolated suspension system. A floating system that not only damps out external vibrations at the base but also from the platter and tonearm. Combined with our new sensitive gimbal-suspension tonearm, it dramatically reduces feedback. Even at high music levels.

**Less Wow & Flutter.**
Amplified, even the smallest fluctuations in platter speed can be your biggest problem. So this year with a B-FG speed stabilizer built into our 321-element one-chip IC, you get infinitesimal wow and flutter, equal to Technics professional level. An incredible 0.025% WRMS.

**Less Rumble.**
The less noise your turntable makes, the more music you hear. That’s why professionals loved Technics last year. This year, we’re even more lovable, because there’s even less rumble, −73 dB (DIN B) to be exact.

**For Less Money.**
Even with features like oil-damped cueing. A computer-analyzed S-shaped universal tonearm with anti-skate control. Pitch controls variable by 10%. And detachable dust cover. Technics turntables cost less this year than last.

Technics. We’re giving you less. And that means you’re getting more.

---

**Technics by Panasonic**
The Loudspeaker with a Tough Act to Follow: JBL's New L40.

For the past 2 1/2 years, we've been making a two-way bookshelf loudspeaker called the L26. The critics loved it. The dealers loved it. The customers loved it. 250,000 times to be exact.

The smart thing to do would've been to just keep cranking out those L26's for the next hundred years. Never change a winner, right? Not if you're JBL.

Meet JBL's brand new L40. It's the best $200 two-way loudspeaker you can buy. Here's why:

The L40 has tremendous power handling capability. Don't let its size fool you. It'll play right up there with loudspeakers twice its size.
Every sound is clean and clear. Listen to the snap of a rimshot, the crash of a cymbal. Pure. Accurate. Perfectly defined. (If you'd like the technical information on the L40, write us and we'll send you an engineering staff report. Nothing fancy except the specs.)

Go listen to the L40. And ask for it by its first name: JBL. You'll be getting the same craftsmanship, the same components, the same sound heard in the very top recording studios in the world.

If you've been thinking about getting into high performance high fidelity, we know a great place to start: JBL's new L40. It's a whole lot of JBL for not a whole lot of money.

Ranked by the number of Top Fifty albums they produced last year, seven of the ten leading recording studios in the world used JBL to record or mix their music. They used our sound to make theirs. Source: Recording Institute of America.
True four-point gimbal centers and pivots tonearm mass where vertical and horizontal axes intersect. The four needle-point pivots are tempered and honed to produce microscopically smooth surfaces. Each pivot is matched to a ball-bearing race only 0.157 inches in diameter.

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

Cueing descent speed and height are both adjustable, providing complete control of stylus setdown.

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

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

Straight-line tubular shape provides maximum torsional rigidity and lowest effective mass.
How to identify
the world's finest tonearm.

When one tonearm—among all those available—is described as "the world's finest," some controversy may be anticipated. Fine, we welcome that possibility. There is far too little discussion about tonearms—considering the critical difference they make in how records sound and how long they last.

Simply stated, the tonearm's function is to provide the correct cartridge-to-groove geometry and to allow the stylus to trace the groove contours freely, precisely, and with the lowest practical tracking force.

Dual's engineering approach to tonearm performance makes us feel confident of the outcome of any comparisons.

The basic geometry.

The shape of the Dual tonearm is a straight line from pivot area to tonearm head, the shortest distance between those two important points. Curved tonearms may look sexier, but contribute extra mass, less rigidity and a tendency to lateral imbalance. That's hardly consistent with good engineering.

Every Dual tonearm is mounted in a true, four-point gimbal. The tonearm mass is centered, balanced and pivots precisely where the vertical and horizontal axes intersect.

Identical pairs of low-friction needle-point pivots and miniature ball bearings are used in both axes. The precision and quality control standards applied to their manufacture and assembly are usually found only in aerospace and allied technologies.

Settings for your cartridge.

The vernier-adjustable counterbalance lets you set zero-balance with micrometer-like precision so that tracking force can then be set accurately. A tempered, flat-wound spring applies tracking force directly at the vertical pivot, and this force remains perpendicular to the record even if the turntable chassis is not level. Anti-skating is applied around the horizontal pivot, directly counter to the skating force, and it adjusts automatically to the varying skating force encountered by the tonearm as it moves across the record.

Another Dual refinement, not available on any other integrated tonearm, is the Vertical Tonearm Control. A vernier height adjustment over an 8mm range allows paralleling the tonearm to the record without cartridge spacers. Tonearm mass remains as low as possible, and mounting and changing cartridges are simplified.

Another Dual exclusive:
tuned anti-resonance filters.

The counterbalance contains two specially tuned mechanical filters that absorb parasitic resonances originating in the tonearm/cartridge system and chassis. The result: flawless tracking stability maintained even in the presence of external shock and vibration whether caused by acoustic feedback, record warps or dancing feet.

About all Dual tonearms.

The tonearm shown and described here is part of our higher-priced turntables. But many of its features are found in our lowest-priced model: the four-point gimbal, the straight-line design, and the precise mechanisms for balance, tracking force and anti-skating adjustment.

In fact, we'd be willing to match the performance of our lowest-priced tonearm against anyone else's highest-priced tonearm. But one argument at a time is enough.

Now that you've been "armed" with the facts, we invite you to visit your audio dealer to examine the tonearms you find there—separate and built in—and decide for yourself which one is indeed the finest.

No one can argue with that suggestion.
New...100D 3-Way
Curvilinear Enclosure System

THE DYNAMIC DOME

RTR interpolates a significant midrange

Within this striking, acoustically transparent enclosure, lies an exceptional 3-way speaker system. Entirely new. Totally RTR.

The 100D was conceived and executed to display the new, technologically advanced RTR midrange system. Vast midrange capabilities are yielded by a low mass 1.5" soft dome driver, single layer voice coil and 3.4 lb. magnetic assembly. This is the first dome system to successfully integrate smooth response and broad dispersion with outstanding dynamic range and transient response. The key to reproducing music convincingly!

This multi-faceted midrange crosses over at 1.25 KHz to an RTR 12" woofer which is so technically excellent that it will neither destruct nor delaminate. The deep, authoritative bass response is uncolored and precisely defined. Crossing in at 10 KHz, the solid state super tweeter imparts extended crystalline high end reproduction.

All packaged handsomely in a 15 x 26½ x 14½ walnut enclosure and bookshelf priced. audition the 100D now at your RTR dealer.

RTR Industries
For dealer list, write RTR, Dept. HF, 8116 Deering Avenue Canoga Park, CA 91304
CIRCLE 50 ON READER-SERVICE CARD

10. The Ban and the Big Bands

by Gene Lees

In 1942 the American Federation of Musicians made a tactical blunder: It called a strike against the recording industry. That strike was one of a series of blows that would bring about the demise of the big-band era.

The union's cause was just enough. It argued that since "live" musicians were being put out of work by phonograph records played on radio and jukeboxes, they should be compensated for this loss by the record industry. After a twenty-seven-month ban on recording by AFM members, the industry agreed to the establishment of a trust fund, financed by a surcharge on recording sessions, through which the union would sponsor live presentations of music throughout the country. Later, consolidating its gains, the AFM also established a system whereby musicians receive a royalty check for their work at the end of the fiscal year. A busy studio musician may get $25,000 or more on top of the money he already has earned for the sessions. But in 1942 all that lay far in the future.

The ban did not close down recording studios altogether. Singers are not required to be members of the AFM—perhaps reflecting the view of instrumentalists from time immemorial that singers are not really musicians—and therefore were able to continue recording. So long as AFM members were not used in instrumental accompaniment, there was nothing to stop them. Backed by a cappella voices, the vocalists turned out hits such as Frank Sinatra's "Sunday, Monday, or Always" and Nat Cole's "Nature Boy."

(As a pianist, Cole was a member of the AFM, but when performing as a singer he was not in violation of union regulations.)

Musically, these choral-accompanied performances left much to be desired, but radio stations obviously wanted new material. Thus, while such singers as Sinatra, Cole, Dick Haymes, Peggy Lee, and Doris Day received increased exposure on radio and records, Tommy Dorsey, Woody Herman, Benny Goodman, and the other bandleaders got none. By the end of the recording ban, vocalists were firmly entrenched in popular favor and the bands had lost ground.

Before the ban, singers had been an adjunct to instrumental dance music, their lesser rank manifested in the fact that the first chorus on a recording was usually instrumental and that the singer was heard only in the second chorus. But when at the end of the ban singers found themselves in the ascendency, they inevitably reversed this order. The first chorus was vocal, generally followed by a sixteen-bar instrumental interlude, the singer returning at the release for the last half of the song.

And popular music was changing. Since few singers, with the notable exception of Cole, could swing, the fare consisted mainly of ballads, with nonsense novelty tunes turning up occasionally to break the pattern—hardly the sort of thing that required creative instrumental support. Coming into focus too was a division in pop music between the high standards of art and the expediencies of commerce.

In the struggle between art and entertainment, many of the bandleaders were clearly on the side of the angels. Reaching beyond the popular song for repertoire, Woody Herman experimented with expanded form when he recorded Summer Sequence, a suite for jazz orchestra by pianist/arranger Ralph Burns, and then the Ebony Concerto, which Igor Stravinsky composed for the band. Boyd Raeburn's band was doing remarkable and daring things, becoming "far out" or "out there," in today's parlance. Claude
Sometimes it just doesn’t add up

What you want is better sound. But, the expense of replacing your whole system just isn’t reasonable. MXR has a way to upgrade your sound significantly, without starting from scratch. MXR’s Stereo Graphic Equalizer and Compander can give you the right sound at a cost that is much easier to take.

The MXR Compander can double the dynamic range of most open reel and cassette tape decks to allow professional results in home recording. The Compander increases the overall fidelity of your system while reducing noise. The softest sounds can be heard, while musical peaks can be reproduced without distortion.

The Compander compresses the dynamic range of the signal going onto the tape and expands it upon playback at a two to one ratio. The resulting increase in dynamic range allows your present system to produce the depth of sound that you want to have when you record.

A natural companion, the MXR Stereo Graphic Equalizer is designed to provide precise compensation for aural discrepancy that may be caused by room acoustics, speaker inadequacies or program source. The Stereo Graphic Equalizer allows you to tailor your sound to your own tastes. At the touch of a slide control, you can customize your playback to suit any number of variables. It can provide you with enough control over your present system to give you the sound that you want to hear.

The Compander, at $129.95, and the Stereo Graphic Equalizer at $199.95, with the equipment you already have, can add up to the sound that you want, at a reasonable price.

For more information see your nearest MXR dealer or direct inquiries to MXR Innovations, Inc. 277 N. Goodman St., Rochester, New York 14607 (716) 442-5320.
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CIRCLE 36 ON READER-SERVICE CARD

Thornhill added French horns to his band, and the arrangements and compositions of the brilliant Gil Evans gave it the floating, misty, almost motionless quality Thornhill was looking for. Eddie Sauter and Bill Finegan, two enormously gifted arrangers, formed an orchestra using flutes and a battery of symphonic percussion and wrote material that took the band close to classical music. Stan Kenton, always one of the most experimental of bandleaders, recorded Robert Graetinger's then-radical City of Glass. Later, with his innovations in Modern Music orchestra, Kenton added a large string section and eschewed the dance pavilions for the concert hall.

At one time a story had circulated that a frustrated dancer asked one of Kenton's trombonists, "Why don't you play something we can dance to?" To which the musician replied, "Why don't you dance something we can play to?"

The tale may be apocryphal, but the fact that it was repeated with gusto by other musicians revealed their condescension toward dancers and indeed the public as a whole. Musicians were growing uninterested in being entertainers; they were thinking of themselves as artists.

The ambivalent attitude toward the music of the bands had been evident for some time, and it was not limited to the musicians. The public shared it. The main support for the bands had been an audience of young dancers. But others among their fans — more interested in the music itself, fully aware of the virtuosity of these orchestras, admiring individual sidemen as stars in their own right — were wont to gather near the front of the ballroom so they could hear better. It was this intent group of listeners, as opposed to dancers, that the bands began to focus on and play for. The question was: Were there enough of them to support this serious and experimental music? The wisdom of hindsight suggests that there were not.

All the while, the bands were faced with increasing problems of a material nature. After World War II musicians wanted and needed higher salaries. The costs of transporting bands from town to town by bus were rising. Ballrooms and dance pavilions one by one went out of business.

Weakened by round after round of pummeling, the bands were about to be hit by a powerful punch that would kill off all but a hardy handful. That blow was the decline and, for all practical purposes — in the postwar era, at least — the death of network radio. This is the topic I will discuss in the next issue.
Mary of the records you own we're mastered with Ortofon cutterheads. That tells you what we know about laying the music into the grooves. Now we'll tell you what we know about getting the music out.

Our patented VMS Magnetic Cartridges. At the heart of the VMS (Variable Magnetic Shunt) principle is a unique, low-mass ring magnet. It forms a super-sensitive flux field that responds to stylus movement with incredible accuracy.

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Play it as it lays.
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Many American audiophiles remember—or still own—Wharfedale speakers, those great big sand-filled speakers designed by Gilbert Briggs, founder of the Wharfedale Wireless Works. They filled your listening room with rich, full and faithful sound and were judged to be among the finest by the world’s leading acoustic and electronic engineers.

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The Wharfedale E-70's and E-50's sound magnificent under all acoustic conditions. They offer two environmental-contour controls for matching sound to the acoustics and shape of your listening room. Unlike other speakers that just control the amplitude of midrange and treble, the Wharfedale environmental controls change the shape and response of the crossovers.

Write to us for the name of your nearest Wharfordale dealer and ask for full product and technical literature on the E-70's and E-50's. Then listen to the dynamic new sound of Wharfordale. We know you'll be pleased we're back in America.
Two Years of the Power Rule

A wise man once observed that stresses in social systems are most often resolved through minimal adjustments; the route through cataclysm is rarely taken. Thus, while the doomsayers of the 1950s seemed to have been convinced that major portions of the earth were destined to become radioactive junkyards long before now, the conflicts between East and West have been confined to far more manageable proportions. Similarly, while large cities in the U.S. surely are having their problems, they have not become the uninhabitable pestholes that those with a penchant for sensational pessimism had foreseen.

The situation is, we suspect, much the same with respect to the FTC amplifier power rule, which has been in effect roughly two years. Proponents of the rule saw it as a significant step in bringing about the millennium for consumers, who would henceforth be protected against unscrupulous high fidelity manufacturers bent on convincing the unwary that one watt was two, or four, or more. Opponents felt that the rule would harm the consumer by raising the cost of equipment without providing any benefit.

From what we can see, few of the predicted effects have materialized. Amplifiers are not significantly higher in cost than they were before, and the increases in performance are just about what we would have expected over a two-year period without the intervention of the federal government. Whether it was the detested one-hour preconditioning (which the FTC watered to innocuousness when it decided to permit thermal cycling) or concern for conservation that prompted companies like Hitachi, Soundcraftsmen, and Threshold to design relatively power-efficient circuits is hard to say, but these developments have been welcome nonetheless.

One thing the FTC did accomplish was near-total banishment of "music power," a concept that it apparently considered useless other than as a vehicle for inflated power claims. Yet, since most amps are not used to handle sine-wave power in servo systems, the question of how they behave with a music waveform is quite legitimate. This is especially true for amps that (like Hitachi's Class G) are specifically designed for the kind of peak capability required by music.

Perhaps "music power" should be redefined as the peak power the amp can produce on an instantaneous transient, minus 10 dB (to allow for the usual 10-dB peak-to-average ratio of music). Since an amp rated at 20 dBW (100 watts) continuous would probably have a "music" rating only slightly greater than 13 dBW (20 watts), no one then could be accused of inflating specs.

Aside from that, we have been lucky—very lucky, considering the obvious lapses of understanding out of which the FTC rules were made. Disaster has not befallen the industry, and research and development do not appear to have been seriously inhibited. Next time the gods of chance might not be so kind. When the Feds deem it necessary to intervene on behalf of the audio consumer, is it too much to ask that they do their homework—first?

Home Video Cassettes: A Report from the Front

Though the moment of single-format truth still seems distant (and, with it, the long-heralded revolution in home entertainment, which we believe must be based on buyer confidence that today's recorder can find parts and tape supplies tomorrow), we sense a new vigor in the way the various bandwagons are being urged toward the fray. Perhaps those who hold the reins genuinely think their designs finally are "final"; perhaps they seek to head off the video disc (meaning, primarily, the Philips/MCA format) at some Thermopylae. But motion—and commotion—there is.

Sony seems the leader with Betamax. (The earlier U-Matic format, as Sony predicted, has found a solid market in industrial and educational applications and has never been a serious contender for the home market.) Betamax has longevity: some two years on the U.S. market. Its price, about $1,300 in deck form, has therefore set the pace for its competitors, who try, not always successfully, to come in a little lower. Its original recording time of an hour per cassette also has been something to shoot at; Sony itself has outdone that figure in the newest models, which add a half-speed option for twice the recording time with somewhat diminished picture quality. Other companies offering Betamax-format equipment (all with the option), or reported to be considering doing so, include Pioneer, Sears, Zenith, Sanyo, Toshiba, and Aiwa.

JVC's format, VHS, offers the two-hour capability that presumably forced Sony's hand in introducing its option. VHS has also been espoused by MGA and Sharp. Meanwhile, JVC's parent corporation, Matsushita (of Panasonic/Technics fame), has fitted a half-speed option to VHS, making it capable of recording for four hours. Magnavox, RCA, Sylvania, Hitachi, and Curtis Mathes are among those favoring this version. But Matsushita is still
You’ve been putting up with compromises all these years, but now you’re ready for the ultimate.
You’ve spent a long time developing your listening sense. To the point where what’s super for most people, for you is just compromise. You’re ready for the ultimate. Which we call Citation. The Citations you see here are all brand-new. Designed to new understandings. New understandings about transient intermodulation distortion (TIM). About crossover distortion. About FM signal processing and phono preamp design. The new Citations answer these concerns with features like fast slew rate, low-level negative feedback, discrete components in place of integrated circuits, extended Class A operation, an FM external processor loop, and phono equalization to within ±0.25dB of the RIAA curve.

In addition, they all feature the ultra-wideband design pioneered by our first state-of-the-art Citations in 1959. Ultra-wideband design extends flat frequency response well beyond the conventional 20-20,000Hz range. To insure phase linearity and outstanding transient response. The benefit is an incredibly open, accurate sound. The spacious stereo imaging and the far greater musical detail you’ve been longing to hear. Citation components are in use throughout the world. By professionals in their reference systems, by rock bands on stage, and by symphony orchestras in their listening facilities. And their reliability is legend. The new Harman Kardon Citations. As close to the ideal in sound reproduction as any components have ever come. Some even say closer.

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Citation 16a Power Amplifier: 150W min. RMS per channel. Into 8 ohms from 20Hz to 20kHz, with less than 0.05% THD Twin Powered. Frequency response from below 4Hz to beyond 120kHz +/-3dB.
producing (via Quasar) its two-hour VX-2000 format, which is not compatible with either version of VHS but, at about $1,000, is among the least expensive decks so far announced.

Sanyo, in addition to offering Betamax, still has its own V-Cord II format, which it appears to be alone in pursuing. In Europe there is yet another format espoused by Philips, Grundig, and ITT. Both of these dark horses for the American home market appear more likely to compete with U-Matic in institutional use.

The camera industry also is interested in video tape: Eastman Kodak and Bell & Howell (the latter working with BASF) appear to be developing formats specifically for use in the field—as opposed to the basically nonportable, AC-operated decks of the other formats. B&H already has announced that it expects to have something on the market at less than $1,000 by Christmas of 1979. But that’s a long way off. Like weather forecasts, such announcements seem to lose reliability exponentially with the length of their reach into the future.

A field format easily might coexist with a home format, since they serve very different needs. But, long term, we believe it unlikely that multiple home formats can be prevented from consuming each other. May the best one win—and quickly!

Also . . .

Audio-Technica has announced the winners of its Audio Excellence Awards, a critics’ poll meant to identify discs that are outstanding in production, engineering, manufacture, and other important qualities. Stevie Wonder’s "Songs in the Key of Life" (Tamla 13 340C2) won in the rock/pop division, while classical honors were taken by "Caruso—A Legendary Performer" (RCA CRM 1-1749), performances taken from discs recorded between 1906 and 1920 and sonically restored by computer techniques (see "Caruso cum Computer," November 1976).

Superscope, jumping into the field of reproducer pianos in a big way since the introduction of its Pianocorder, has acquired the Aeolian Corporation, the largest company in the world engaged exclusively in manufacturing and distributing pianos. Aeolian distributes Mason & Hamlin, Knabe, Chickering, and other makes of piano.

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**Equipment in the News**

**JBL introduces the L-212**

JBL’s newest in loudspeakers is the L-212, a floor-standing system that consists of two three-way panels and a self-powered subwoofer called the Ultrabass. Using a single channel to reproduce frequencies below 70 Hz, the Ultrabass contains a bass amplifier and a 12-inch driver. It can be positioned anywhere in the listening room without affecting the stereo image. Total bandwidth (to -3 dB) of the L-212 is said to extend from 25 Hz to 20 kHz. All three enclosures are finished in walnut. The price of the complete system is $1,740.

**New turntable from Marantz**

Added to Marantz’ line of components is a direct drive, two speed (33 and 45 rpm) turntable, the Model 6150. Powered by a DC servo-control motor, this turntable includes such features as ±3% pitch control, stroboscope, statically balanced tone arm, and viscous-damped cueing. Wow and flutter are rated at less than 0.045%. Base and dust cover are provided with the 6150, which costs less than $200.
Designing a great loudspeaker system is truly an engineering challenge. Solutions don’t come easily.

But every so often...

And that’s been AR’s secret: a quarter-century of innovation and engineering concepts which have influenced speaker design worldwide. Acoustic suspension. The dome high-range speaker. And now, the liquid-cooled, high-range speaker.

The problem: High-range speakers are relatively small and generate a lot of heat. The entire system’s power-handling capacity depends in part on whether or not this heat can be dissipated.

Too much heat. Pop goes your system.

The AR solution: Suspend the voice coil in an exotic magnetic liquid, (it costs nearly $3000 per gallon) to position the voice coil precisely and act as a heat transfer agent.

The result: Greater power-handling capacity for every one of the seven-speaker systems in the new AR range.

You’ll find them all in fine high fidelity stores, from about $65 to about $450.

Listen to them before you buy anything, and define “truth in listening” once and for all.

For information and “specs” pick up our new catalog from your high fidelity dealer or write to us at the address below.

CIRCLE 1 ON READER-SERVICE CARD
DBX semipro noise-reduction system

The modular, rack-mounted DBX Model 158 offers eight channels of noise reduction for semiprofessional or small studio applications. Each module contains separate recording and playback electronics, which allow monitoring of the processed program from the tape. The system comes with a spare plug-in module and is compatible with the entire DBX professional line, as well as with those Teac tape recorders that incorporate DBX units. The 158 can be used with preamps, mixer, or multitrack tape recorders having pin-style (unbalanced) output connections and is sold—by DBX professional audio dealers—for $2,400.

Budget speakers from Cerwin-Vega

Cerwin-Vega is offering the HED series of loudspeakers designed for performance rather than appearance. The H-12, one of the two-way models, has a 12-inch woofer and 1-inch dhorn tweeter. Rated frequency response is 38 Hz to 20 kHz, ±4 dB, and crossover occurs at 2 kHz. The H-12, which is finished in Durotex, costs $119.95. Other speakers in the HED series—the H-10 and H-15, also finished in Durotex, and the W-10 and W-12, finished in walnut—range in price from $99.95 to $199.95.

The Spectra Sonics line/mike audio mixer

The Model 1100, for PA/disco and studio use, combines six microphone or line-level inputs to a single mono output. The front-panel controls include one each for input level, two for mono output equalization (maximum eq. is said to be ±20 dB at 20 Hz and 20 kHz), and separate program and monitor gain potentiometers. Frequency response is rated at 20 Hz to 20 kHz, ±1 dB (program output), ±1 dB (monitor output). The 1100 can be mounted in a 19-inch rack and costs $800.

Ace’s preamp has separate power supply

The Model 3100 preamp from Ace Audio comes with a separate power supply module to minimize the residual hum that can occur should the power transformer couple to other circuitry in the preamp. The module also has a slow turn-on characteristic to control thumps. Ferrite beads are used to stave off interference from CBs and other radio frequency sources. Intermodulation and harmonic distortion are rated at less than 0.01%. The cost of the 3100 preamp is $325.

Audio-Technica electret condenser microphone

The Model AT-813 is one of a series of microphones recently introduced by Audio-Technica. Its pickup pattern is cardioid, and it features a low-mass polymer diaphragm. A small AA cell powers the FET impedance-matching network built into the microphone’s casing. The AT-813 is said to provide a distortion-free signal in sound fields as loud as 122 dB, well above the threshold of pain. An integral windscreen for close-distance applications should reduce the possibility of “popping.” Output impedance is rated at 600 ohms, and the microphone is designed to work into inputs rated between 150 and 1,000 ohms. The price is $80.
THAT NEW BLACK MAGIC.

So it's got an expensive new look that separates it from every deck in its class. Nice. But is that reason enough to call it magic?

No.

But this is: generally speaking, over a quarter century of TEAC engineering is wrapped up in the A-103. Specifically speaking, the A-103 boasts an innovative design that replaces a maze of wires and circuit boards with a single circuit board. That's one reason.

When you press the Eject button, your cassette doesn't pop out at you like a deranged toaster. It's cushioned, and works slowly and smoothly for longer deck life. That's two reasons.

Built-in Dolby® circuitry, High Density Permaflux head, frequency-generated servo-controlled DC motor, separate level controls, wide dynamic range, and switchable bias/equalization. Reasons three through eight.

But how do we offer all these things (and more) in a deck that costs as little as the A-103?

That's the real magic!

*Dolby is a registered trademark of Dolby Laboratories, Inc.

SPECIFICATIONS
(conservatively rated)

Signal-to-Noise Ratio:
50dB (without Dolby)
55dB (with Dolby at 1kHz)

Frequency Response:
30-14,000Hz (CrC2/FeCr)
30-11,000Hz (Normal)

Wow & Flutter: 0.10%
(NAB Weighted)

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INTRODUCING HIGHER FIDELITY.
The first components precise enough to be called Philips.

Now, a full line of high-fidelity equipment that is so precise, Philips calls it “higher” fidelity. Philips precision. It means being able to call upon dozens of research engineers and a computer to help design a mini-computer to regulate the speed of a turntable. And then using unsurpassed worldwide technical resources to produce that turntable precisely as it was designed.

Today, that same level of precision is yours to enjoy in a line of turntables, as well as in several other new components which offer innovative features, outstanding performance and reliability for less than you’d expect to pay.

Principal among the tables is the GA 222. To the mini-computer of the GA 312 Electronic, it adds an ultra-low-resonance tonearm and the convenience of fully automatic operation.

All single-play turntables suspend platter and tonearm over a free-floating subchassis to shield the stylus from vibration.

The decks with logic circuitry.

And it’s controlled logically—with time delay relays and solenoid switches—to smooth changes in function (from “rewind” to “fast-forward,” for instance) without spilling tape. Quite remarkable, even in expensive professional equipment. Astonishing in the N 4504 at less than $450.

Other pro features at semi-pro prices: 3 speeds, 3 motors (the drive motor is regulated by a tacho-generator for extra precision), 3 heads, automatic end-of-tape stop, a dynamic noise limiter (better than 10 dB down) that cuts the hiss but not the highs, and an exclusive system that lets you play tape with or without the pressure pad in place.
AH 572. Six inputs, four outputs, five tape modes, five listening positions, all for less than $600.

AH 673. Phase-locked loop multiplex decoder, dual-gate MOSFETs in FM, full-fidelity AM. Less than $600.

AH 578. High-accuracy detent controls and high performance at a not-so-high price: less than $700.

See what you're hearing.

Finally. A preamp that illuminates function to eliminate confusion. You always see precisely what it's doing (inputs and outputs light up on a flow diagram), and you hear how well, too (less than 0.01% total harmonic distortion).

The tuner features exclusive automatic stereo noise-cancelling circuitry. The amp delivers 210 watts per channel minimum RMS into 8 ohms, from 20-20k Hz, with no more than 0.08% total harmonic distortion. And touch switches on all three units literally put precise control at your fingertips.

Big sound. Small speaker.

A paradox? No, a Philips MFB electronic speaker system. The secret: unique built-in amplifiers and an automatic system that extends bass response, yet reduces distortion.

Philips dynamic speakers use the same mid- and high-frequency drivers as the MFBs, which means they "listen" with the same precision.

Turntables, tape decks, separates, speakers. Now you can choose higher fidelity from the full line that only Philips precision could produce.

Philips speakers are priced from less than $120 each to over $1,000.

PHILIPS

High Fidelity Laboratories, Ltd.
For the name and address of your nearest franchised Philips dealer, call 800-243-6100, day or night, toll-free.
(In Conn.: 1-800-882-6500.)

CIRCLE 47 ON READER-SERVICE CARD
Introducing the Koss Theory of loudspeaker design and the three new Koss CM speaker systems that prove it.

Here for the first time is the culmination of a worldwide search for the ultimate in loudspeaker design within the limitations of today's technology and within affordable price restrictions. Indeed it represents a breakthrough in loudspeaker technology of such significance that it heralds the second major revolution in loudspeaker design.

By utilizing a complex series of audio engineering formulas and the precise knowledge of computer science, Koss engineers are now able to derive and produce the optimum system parameters for any loudspeaker. The incredible result of this engineering achievement is the new Koss CM 1010, 1020, and 1030 loudspeaker systems. Each represents the ultimate speaker system available in its price range. And each represents a listening experience you'll have to hear to believe.

Ask your Audio Dealer to let you hear this new, incredibly beautiful, Sound of Koss and to show you how the Koss Theory of loudspeaker design has created a whole new generation of loudspeakers. And if you'd like to have our full-color brochure telling all about the Koss Theory, write for it, c/o Fred Forbes. Once you've heard these revolutionary new loudspeakers, we think you'll agree: hearing is believing.
Direct-o-matic Sansui cassette deck

Sansui's SC-3100 cassette deck incorporates two proprietary features: a direct front-loading system that is said to provide exceptional convenience in tape handling and head maintenance, and a system that cues itself up just past the tape leader at the beginning of a cassette. This Dolby deck also offers mike and line mixing, averaging meters, a peak-indicating LED, memory rewind, and a timer for automatic recording and playback. The separate bias and equalization switches each have three settings: CHROME, NORMAL, and FERRICHROME. The SC-3100 is finished in simulated walnut grain and costs $430.

CIRCLE 143 ON READER-SERVICE CARD

Ultralinear's Synchronic Time Array speakers

The Synchronic Time Array ST525 from Ultralinear is a three-way loud-speaker system whose design features driver alignment and network/driver matching to correct time-delay distortion. Output of the three drivers can be controlled individually. Crossovers occur at 700 Hz and 4.3 kHz. Suggested amplifier range is from 13 dBW (20 watts) to 1834 dBW (75 watts) into 8 ohms, and frequency response is rated at 30 Hz to 22 kHz. Standard finish for the ST-525 is walnut grain covered with Melamine, costing $289.95. Models in oak and walnut finishes are available for $329.95.

CIRCLE 144 ON READER-SERVICE CARD

Berkshire Audio's new disco mixer

Two stereo disc pickups, an auxiliary stereo tape recorder, and a mono microphone input may be fed through the Disko Mix Master IV by Berkshire Audio, with the level of each controlled by front panel slide faders. In addition to the stereo program output, a separate cue output allows the user to monitor independently the aux or either phonograph input. A rotary volume potentiometer adjusts headphone level. Phono frequency response is said to be within ±½ dB of the RIAA curve, while mike and aux inputs are rated at 20 Hz to 20 kHz, ±1 dB. The suggested retail price is $189.

CIRCLE 145 ON READER-SERVICE CARD

Around-the-ear headset from Burwen

Burwen Research's PMB-8 headphone is a semi-open design that uses internal damping material to attenuate external noise. The orthodynamic driver is said to produce up to 112 dB SPL at 1 kHz. Its voice "coils" are printed onto the diaphragms, which are within the field created by perforated disc magnets; the drive-unit segments are held at the center and edge for phase coherence. According to Burwen, the PMB-8 has a frequency response of 15 Hz to 26 kHz with less than 0.3% total harmonic distortion and 150-ohm impedance. Ten-foot cables are provided with the PMB-8, which costs $99.95.

CIRCLE 146 ON READER-SERVICE CARD

A booster amp from Sonab

Sonab has introduced an add-on amplifier module that can double the output of any amplifier or receiver up to 17¾ dBW (60 watts). The dual-channel auxiliary amp, the A-4000, has no controls other than an on/off switch. An LED indicator is provided to warn of faults in the system. Rated bandwidth at full power into 8 ohms is 20 Hz to 25 kHz with no more than 0.3% total harmonic distortion. The A-4000 is not recommended for use with a 4-ohm load. Signal-to-noise ratio is claimed to be better than 90 dB. The A-4000 comes in a black matte finish and sells for $400.

CIRCLE 147 ON READER-SERVICE CARD
I am thinking of buying a McIntosh amp with 100 watts per channel, and either a JBL Model 200 or 300, Altec Model 19, or Klipschorn speakers. I know all these speakers are supposed to handle this kind of power, but will they? A friend of mine blew an Ohm F with a 75-watt receiver. I would appreciate your opinion.—Garth S. Nelson, Sussex, Canada.

The speakers you are considering are safe (as are most speakers) with 20 DBW (100 watts) as long as the amp is not driven into clipping. We cannot imagine that an Ohm F was destroyed by a clean signal from a 75-watt receiver, as that speaker has been known to remain unimpressed while driven from amps rated at 23 DBW (200 watts) or more. Either the receiver was driven into heavy clipping, or it failed under excessive drive and put DC through the voice coil.

Record stores check styli microscopically free of charge, but I have found this service to be very careless and poor. I had a stylus checked in a store that declared it to be worn out and unusable, and several minutes later another store nearby said the same stylus was in perfect condition.

Because of that, I want to buy a microscope for my own use and would like your suggestions. How strong should the magnification be (25X, 100X, 1,000X)? What features are significant and necessary in a good stylus microscope, and which are insignificant except in raising the price? Which brands can you recommend that are good and not very expensive (for example, one can buy very good binoculars for $50, while slightly better ones cost around $400)?—Omelan Kulyckyj, New York, N.Y.

The personnel who check styli in record and audio stores often lack expertise and may be plagued with poor equipment. On the basis of the sophisticated hardware we have seen manufacturers use to check stylus wear (and the dismal results we have gotten using cheapies) we would suspect that a usable microscope for this purpose is an expensive item. But the microscope won't do you any good unless you know what to look for, and—more to the point—when a stylus shows faults that are obvious to the untrained eye it may already be damaging records. It seems to us that you can save yourself grief, trouble, and money by simply replacing a stylus routinely after 500 to 600 hours of use and forgetting the microscope.

Akai and Hitachi now have tape recording and playback heads within a single housing that eliminates height and azimuth adjustment problems. Is this type of construction an advantage over that of such decks as the Tandberg 7CD-330 and the Nakamichi 1000 II, which feature adjustable azimuth?—Richard Red, Grand Rapids, Mich.

The two-head-in-one arrangement, by placing the playback gap very close to that for recording, minimizes the amount of tape twisting (and hence misalignment) that can take place between the two. But the physical space limitations put constraints on the design and construction of the head. Nakamichi and Tandberg are saying, in effect, that they would rather go for the best possible heads and solve the alignment problems inherent in separate heads via an adjustment system. Hitachi and Akai prefer to minimize the alignment problem and avoid potentially annoying (and costly) adjustment systems by accepting some compromises in the heads. Incidentally it is conceivable that Hitachi's new Hall effect heads may make possible the best of both worlds, though any judgment on that will have to wait until products are available.

I'm a bit obsessive when it comes to conserving electricity and would appreciate information on power consumption in stereo amplifiers. Do the figures listed by some manufacturers represent consumption only at full volume—which I'm not likely to require? Does consumption increase as I turn up the volume? If so, would an amp use relatively little power at low volume? If the amp is switched on but no input provided, what percentage of its peak consumption does it draw? Does a more powerful amp use a lot more electricity or will things balance out somewhat because it can be used at a lower volume setting than a less powerful amp? I don't mind a higher initial investment but would dislike a higher monthly electric bill.—Michael D. Scherer, Teaticket, Mass.

We covered this subject in some detail in our July 1974 issue (“High Fidelity and the Energy Crisis” by Edward J. Foster), though amplifier design has altered the figures somewhat since then. First, we doubt that your audio equipment is using any significant fraction of your total electricity demand (certainly, if we assume solid-state equipment; tubes draw a lot of current just to heat their filament). The wattage drawn by a power amp (regardless of its output ratings) depends on how much output power it actually is called upon to deliver. Idling power increases with output rating, but usually not proportionally. A typical amp rated at 20 DBW (100 watts) per channel and designed for Class-B operation might draw about 80 watts at idle and perhaps 250 watts at around 13 dBW (20 watts) average—the
Most people think they have to buy expensive equipment to improve their hi-fi systems.

But no matter how good the components in any system are, it's impossible for the sound you have recorded to be any better than the tape you record it on.

So before you invest hundreds of dollars in new equipment, invest $4.25 in a Maxell cassette.

Maxell is recognized as the premier quality recording tape the world over. It's used by more audio critics who evaluate hi-fi equipment than any other brand. Among people with expensive sound systems, we're also the most popular tape. But this doesn't mean we can't make a medium quality system a better sounding system.

Buy just one Maxell cassette and see how much better it sounds than the tape you're using now.

At $4.25, you can think of us as expensive tape. Or the cheapest way in the world to get a better sounding hi-fi system.
A friend gave me a pair of Delta Scientific transmission meters. I would like to use these meters to show the output in watts of my Pioneer 737 receiver. Since my friend is not sure how to do this and I cannot find the company's address, I am hoping you can tell me what procedure to use and if it is safe to do.—Adam Kaplan, Plainview, N.Y.

We are not familiar with Delta Scientific, and without certain knowledge on all the meters we cannot tell you how to use them. Why don't you ask your friend where he got them and get the company's address from the store? You might also look into the Realistic APM-100 audio power meter as an alternative.
Extra Power with Improved Efficiency

Hitachi's Class G

Hitachi's Class G is one of the most incredible cost/performance amplifiers ever created. It is about three times as efficient as the conventional Class B amplifier. And it looks as sophisticated as it sounds.

Simply expressed, Class G is two amps in one. During the musical "downs" and "averages" the primary amp works on the low-voltage amplifier. But let one of those musical peaks come along and the standby high-voltage amplifier cuts in for clear, powerful sound without clipping distortion.

Technically the standby amp consists of additional power transistors which are activated only when the signal peak demands it. But practically it means we can offer more usable power at a lower price.

Or in other words you're not only getting a little extra, you're getting about twice the amplification for the price of one amplifier.
Introducing 3 new ways to get the truth out of your cassette deck.
The Master Series.
A Scotch cassette for every switch position.

Three totally different tapes. Each developed to deliver the truest, clearest sound possible at each tape selector switch position.

Our Master I cassette is for normal bias recording. It features an excellent dynamic range, low distortion, uniform high frequency sensitivity and output that’s 10 dB more than standard tapes.

Our new Master II replaces chrome cassettes and is designed for use on hi-fi stereo systems with chrome bias (70 microsecond equalization). It features some spectacular performance characteristics, including a special coating that gives it a 3 dB better signal-to-noise ratio at low and high frequencies than chrome cassettes, yet it’s less abrasive.

Our new Master III is for the ferri-chrome setting. It’s formulated with the most advanced technology available, giving a 3 dB output improvement at low frequencies and 2 dB at high frequency. Its unique dual layer construction increases both low and high frequency sensitivity over chromium dioxide and ferric oxides.

All this, plus unique inner workings you can actually see. Our new Master line has a special bonus feature. A precision molded clear shell that allows you to monitor the inner workings of the cassettes. You can actually see the recorder head penetration and the unique roller guides in action. Look closely at the transparent shell and you’ll see the water wheels which were specially designed to move the tape evenly across the head, reducing friction and noise. And two radially creased shims insure smoother wind, improved mechanical reliability and reduced wow and flutter.

Enough said. Now it’s time for you to take the true test. Match up the right Master cassette with the bias you prefer. Then just listen.

You’ll find that whichever switch position you use, a Scotch® Master is the way to get the most out of it.

Scotch® Recording Tape.
The truth comes out.
Here’s another Empire 698 Turntable dashing off the assembly line.

It takes 1 1/2 hours to make an Empire turntable. Each one stands over 80 separate inspections before it reaches the end of the line. And after the assembly is done, we test it some more. Wow and flutter, rumble, and speed accuracy are electronically confirmed to meet specifications before final approval. It’s not a fast way to finish a turntable, but it’s a great way to start one.

EMPIRE

Empire Scientific Corp., Garden City, New York 11530
A Solid Midpriced Receiver from Sony


Comment: Considering the number of receivers on the market, finding one with full Dolby FM circuitry is like finding an oak in a birch forest. They're there, but rare. The STR-5800SD and the rest of the Sony receivers with the SD suffix are among these rarities.

Third down from the top of the Sony receiver line, the STR-5800SD offers an impressive number of features. For example, at the push of a button, the signal strength meter indicates the degree of multipath interference, allowing you to orient your antenna for minimum deflection. The combination of a four-position rotary switch and a pair of three-position levers handles the input selection. With the Sony arrangement, dubbing between tape decks can proceed in either direction: 1 to 2 or 2 to 1. A front-panel stereo phone jack overrides the rear panel auxiliary inputs for a convenient temporary lashup of an extra piece of equipment. An external processor such as an SQ decoder or graphic equalizer can be permanently wired into the setup and activated at the push of a button—without recourse to the TAPE MONITOR. Three sets of loudspeakers can be hooked up and selected separately or in two combinations (A + B or A + C).

While its 17½-dBW (55-watt) rating doesn't vault the STR-5800SD into the super power class, it certainly is no weakling. Exemplary of Sony's power-rating philosophy, our sample was able to deliver somewhat more oomph (1 dB) than Sony actually claims. Though this doesn't guarantee that all units from a production run will perform identically, it is a good indication that any one you're likely to buy will at least meet spec.

The FM specs of this receiver are no more extraordinary than those of the amplifier, but, again, the lab data show a comfortable margin in almost every respect. Exceptions can probably be attributed to measurement techniques: Capture ratio and selectivity are very difficult to establish with a high degree of accuracy, and our way of measuring...
IM differs somewhat from the standard. So while the STR-5800SD hits no new highs in specs, it is well above average in most important areas.

And the performance is there in actual use. FM behavior is very good—especially in quieting and stereo separation. The dial is generous in length and its calibration linear and reasonably accurate. Tuning is smooth, with negligible backlash. While the channel center meter is not particularly sensitive, the combination signal strength/multipath meter is very handy. The multipath function offers a good indication of optimum antenna orientation and, in the normal signal strength mode, indicates relative signal level.

### Sony STR-5800SD Receiver Additional Data

<table>
<thead>
<tr>
<th>Tuner Section</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Capture ratio</td>
<td>1½ dB</td>
</tr>
<tr>
<td>Alternate-channel selectivity</td>
<td>70 dB</td>
</tr>
<tr>
<td>S/N ratio (mono)</td>
<td>74 dB</td>
</tr>
<tr>
<td>THD</td>
<td>Mono</td>
</tr>
<tr>
<td>80 Hz</td>
<td>0.21%</td>
</tr>
<tr>
<td>1 kHz</td>
<td>0.185%</td>
</tr>
<tr>
<td>10 kHz</td>
<td>0.18%</td>
</tr>
<tr>
<td>IM distortion</td>
<td>0.27%</td>
</tr>
<tr>
<td>19-kHz pilot</td>
<td>-65 dB</td>
</tr>
<tr>
<td>38-kHz subcarrier</td>
<td>-68 dB</td>
</tr>
<tr>
<td>Frequency response</td>
<td></td>
</tr>
<tr>
<td>mono</td>
<td>+1.1½ dB, 20 Hz to 15 kHz</td>
</tr>
<tr>
<td>L ch</td>
<td>+1.1½ dB, 20 Hz to 15 kHz</td>
</tr>
<tr>
<td>R ch</td>
<td>+1.1½ dB, 20 Hz to 15 kHz</td>
</tr>
<tr>
<td>Channel separation</td>
<td>&gt;37 dB, 80 Hz to 10 kHz</td>
</tr>
<tr>
<td></td>
<td>&gt;27 dB, 36 Hz to 15 kHz</td>
</tr>
<tr>
<td>Amplifier Section</td>
<td></td>
</tr>
<tr>
<td>Power output at clipping (channels driven simultaneously)</td>
<td></td>
</tr>
<tr>
<td>L ch</td>
<td>18½ dBW (70 watts)</td>
</tr>
<tr>
<td>R ch</td>
<td>18½ dBW (68 watts)</td>
</tr>
<tr>
<td>Frequency response</td>
<td></td>
</tr>
<tr>
<td>mono</td>
<td>+1.1½ dB, 20 Hz to 20 kHz</td>
</tr>
<tr>
<td>L ch</td>
<td>+1.1½ dB, 20 Hz to 20 kHz</td>
</tr>
<tr>
<td>R ch</td>
<td>+1.1½ dB, below 10 Hz to 40 kHz</td>
</tr>
<tr>
<td>RIAA equalization</td>
<td>±½ dB, 20 Hz to 20 kHz</td>
</tr>
<tr>
<td>Input characteristics (for rated output at full gain)</td>
<td></td>
</tr>
<tr>
<td>Sensitivity</td>
<td>Noise</td>
</tr>
<tr>
<td>phono</td>
<td>2.4 mV</td>
</tr>
<tr>
<td>aux</td>
<td>250 mV</td>
</tr>
<tr>
<td>tape 1.2</td>
<td>250 mV</td>
</tr>
<tr>
<td>ext. adapt</td>
<td>250 mV</td>
</tr>
<tr>
<td>Phono overload (clipping point)</td>
<td>80 mV at 1 kHz</td>
</tr>
<tr>
<td>Damping factor</td>
<td>42</td>
</tr>
<tr>
<td>High filter</td>
<td>-3 dB at 7.4 kHz, approx. 6 dB/oct.</td>
</tr>
<tr>
<td>Low filter</td>
<td>-3 dB at 43 Hz, approx. 6 dB/oct.</td>
</tr>
</tbody>
</table>
with comparatively high precision. On reasonably strong signals, the tuning can be quite far from the center frequency (as indicated by the meter) before the sound goes to pot.

The muting is effective, although spinning rapidly through the dial will elicit some thumps. The mute point is set quite high, which suppresses some listenable stations with the muting on but assures good mono performance on any signal strong enough to "unmute." On the other hand, the rather low stereo threshold is low enough to put the receiver into the stereo mode on stations that are really quite marginal. The dial pointer is rather novel. It is illuminated in two segments. The lower one is always lit, while the upper appears to come on whenever an FM station strong enough to overcome the muting is received.

The tuner of the STR-5800SD is about what we've come to expect in equipment of this quality. The amplifier, on the other hand, is a bit surprising. The phono preamp is quiet and the RIAA equalization accurate. But we've seen good lab data and heard disappointing sound before. Not so with this Sony—evidently it knows how to extract the best from a cartridge. The phono sound is exceedingly clean and crisp, with very solid midrange and bass. The excellent transient ability shows up dramatically on the new direct-to-disc records, such as the Nexus ragtime concert on the Umbrella label. On that disc, the percussive attack of the xylophone is reproduced with uncanny realism, and the drum beat, although not particularly low in pitch, can be felt as well as heard. We'd rate the phono preamp of the STR-5800SD with the best we've experienced.

We detected no signs of phono input overload even

PL-570, a Luxury Turntable from Pioneer

The Equipment: Pioneer PL-570, a two-speed (33 and 45 rpm) automated single-play turntable assembly, with tone arm, base, and dust cover. Dimensions: 19\frac{1}{2} by 15\frac{1}{2} inches (top); 7\frac{1}{2} inches high with cover closed, 18\frac{1}{2} inches clearance required with cover fully open. Price: $400. Warranty: "limited," two years parts and labor. Manufacturer: Pioneer Electronic Corp., Japan; U.S. distributor: U.S. Pioneer Electronic Corp., 75 Oxford Dr., Moonachie, N.J. 07074.

Comment: If there is any component in which efficient, no-fuss operation can inspire the user with a sense of security, it is a turntable. With the exception of a volume control set inadvertently to speaker-destroying levels, mismanagement of electronics is harmless and easily rectifiable.

Correction

We regret the error. Though the measured clipping point is a bit on the low side. So only with very sensitive cartridges—and discs cut at high levels—might there be cause to look askance at the overload figure. The tone controls are typical, but the ACoustic Compensator selector is unusual. This four-position switch offers conventional loudness contour, bass boost alone (which can be used as a bass-only loudness compensator, though the degree of boost does not depend on the volume setting), and Presence, which produces a gentle hump in the midrange response. The latter is very effective in producing a more "up-front" sound from rather distantly recorded discs, with little apparent effect on the tonal balance. The low and high filters are less effective, and the settings of the function switch and tape selector levers are nigh impossible to see in a dimly illuminated room.

Sony's STR-5800SD strikes us as a very good value. Not only does it include full Dolby FM circuitry (whose usefulness depends, of course, on the number of Dolby stations in your area), but it provides a generally high level of FM performance. The power amplifier should be adequate for most normal listening, and the phono preamp is exceptional. We'd suggest you give this one a careful look.

Phonographic fumble-fingeredness, however, may be punished summarily by damage to a cherished record—or by a horrendous transient that can also put loudspeakers in danger. The Pioneer PL-570 seems to understand this. It almost seems to dare you to try to make a mistake with it. Apart from initial setup, installation of the pickup, and balance and adjustment of the tone arm (which can be a trifle fussy), the user who favors automatic operation has just one responsibility: to make sure that the controls are set correctly for the disc on the platter before touching START. And a touch is all that any of the activating controls needs.

If you like to make manual starts, the unit will indulge you by setting the platter spinning as soon as you remove the arm from its rest. You then cue up the arm and release the cueing lever, which lowers the arm quickly but gently to

November 1977
The Equipment: Philips AH-572, a stereo preamplifier in metal case. Dimensions: 18 by 6 inches (front panel), 13 3/4 inches deep plus clearance for controls and connections. Price: $599.95. Warranty: "limited," two years parts and labor. Manufacturer: Philips High Fidelity Laboratories, P.O. Box 2208, Fort Wayne, Ind. 46801.

Comment: Philips, in the AH-572, has addressed itself to a question that is, we suppose, as old as high fidelity itself—how is one to build a full-feature preamp (or any other unit of similar complexity) so that its workings can be understood at a glance even by the uninitiated? The Philips answer is an illuminating front-panel block schematic whose operation therefore can be checked only at the LEDs: the output selector (the user has the choice of two switchable outputs) is reversed except for reassurance. With the Quartz Lock servo defeated, the speed can be varied by an amount equivalent to a bit more than a semitone up or down. Average weighted peak flutter (ANSI/IEEE) reads 0.04% at 33 1/3 rpm with a maximum instantaneous value of 0.07%, representing fine performance. Rumble is well suppressed, reading ~64 dBA with the CBS ARRL weighting. The isolation system prevents the turntable from being noticeably sensitive to footsteps or minor accidental jogs.

Considered in toto, the PL-570 offers a lot in the way of features and performance to justify its price. The tone arm, incidentally, is adjustable for height, and while we are unable to verify Pioneer's claim that this is unique in such an automatic, we can't recall seeing it elsewhere. Much of what the unit offers is in the realm of convenience and therefore not absolutely necessary, but all the basics are taken care of almost impeccably. To top things off cosmetically and operationally, the turntable projects a gratifying sense of refined elegance and attention to detail. The PL-570 is truly a fine job.
Pure Pleasure.
The True Sound of Scott.

Scott speakers are designed and engineered for listeners who demand the ultimate in true sound reproduction. All Scott speakers are designed and individually tested for low distortion, flat frequency response and the highest possible efficiency. Their crossover networks are built with low loss capacitors, and coils with exceptionally close tolerances to give you the truest sound possible.

Individual Dispersion Control and Frequency Response Switches. The PRO 100 provides a unique sound dispersion control that allows you to adjust the direction and amount of sound between the upward-firing and front-firing drivers. Two additional switches allow you to tailor the high end and midrange frequency response of the speaker to best match your room acoustics.

Unlike many other speakers, Scott speakers neither add nor subtract from the original sound. And unlike so many of today's "fad" speakers, they don't distort the original sound for special effect. Nor do they color the sound for an exaggerated response. Scott speakers provide pure listening pleasure by accurately reproducing music with qualities equivalent to live performances, and with a degree of authenticity limited only by the quality of the record, tape or broadcast signal.

It is this uncommon ability to reproduce sound in a truly natural fashion that has earned Scott speakers their outstanding reputation and critical acclaim. Listen for yourself. The true sound of Scott is pure pleasure. And true sound is built into every Scott speaker in every price range, from the Bookshelf Series to the distinguished PRO 100 shown here.

For specifications on our complete line of audio components, contact your nearest Scott dealer, or write H.H. Scott, Inc., Corporate Headquarters, 20 Commerce Way, Woburn, MA 01801. In Canada: Paco Electronics, Ltd., Quebec, Canada.

Scott's unique, gold warranty card. Individualized with your warranty, model and serial numbers, and expiration date. Scott's fully transferable, five-year parts and labor-limited warranty is your assurance of lasting pleasure.

Unique Bi-Directional Midrange and Tweeter Arrangement. Pairs of midrange and tweeter drivers in two planes, one horizontal and one vertical, offer the advantage of steering high-frequency distribution most favorably complement speaker placement and individual listening taste. Unlike many other speaker systems, the Scott PRO 100 is not dependent on the reflecting surface of the listener's walls for its response, and provides a truly omnidirectional effect in any listening environment.

Upward-firing midrange and high-frequency drivers, as well as front-firing drivers, provide an omnidirectional effect that surrounds you with sound.

SCOTT
The Name to listen to.

Receivers / Tuners / Amplifiers / Turntables / Speakers / Cassette Decks
CIRCLE 54 ON READER-SERVICE CARD
We build the others

Only JVC offers touch control and LED readout to let you control pitch perfectly.
in what leave out.

There are seven extraordinary new JVC turntables to choose from. And priced from less than $100 to more than $1000.* Every turntable in our line offers more features for your dollar than you would expect.

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

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

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

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

JVC America Company, Division of US JVC Corp., 58-75 Queens Midtown Expressway, Maspeth, New York 11378
(212) 476-8300. Canada: JVC Electronics of Canada, Ltd., Scarborough, Ont.
For your nearest JVC dealer, call toll-free (outside N.Y.) 800-221-7502

*Approximate retail value.
With the AD-6550's unique new Remaining Tape Time Meter you never have to worry about running out of tape in the middle of recording your favorite music. In the past you monitored your tape visually and hoped that the musical passage and tape would finish together. Now, this extremely easy to use indicator gives you plenty of warning. It shows you exactly how many minutes remain on the tape. So that when you record the "Minute Waltz" it won't end in 45 seconds.

**Bias Fine Adjustment**

But there's a lot more to the AD-6550. AIWA has included a Bias Fine Adjustment knob that permits the fine tuning of frequency response to give optimum performance of any brand of LH tape on the market.

**Wow and Flutter: Below 0.05% (WRMS)**

The AD-6550 cassette deck achieves an inaudible wow and flutter of below 0.05% (WRMS) thanks to a newly designed 38-pulse FG servo motor and AIWA's special S molecular Stabilized Transport (SST) system. And because we use Dolby* we also improve the S/N ratio to 65dB (Fe-Cr). So you can listen to the music instead of tape hiss.

The AIWA AD-6550.

Be forewarned.

---

*Dolby is a Trademark of Dolby Laboratories, Inc.*
earliest. Buyers whose loudness switching misbehaves can get the fix at a warranty station.

In spite of these cavils, the concept is attractive and, for the first time around at least, well executed. It is complemented by a couple of nice touches on the back panel. There are two unswitched convenience outlets (rated at 200 watts apiece) and two that are switched (100 watts apiece)—a generous array. There is a master power switch. (With it on and the front-panel power touchplate off, there presumably is a slight drain to activate the touchplate; but the various operations triggered by the touchplates, draw current only while the plates are being touched—meaning, for one thing, that when you kill the power by any of the available means, including pulling the plug, the switches will remain on or off as they were beforehand once the power is restored.) Finally, there are four screwdriver phono-sensitivity adjustments, one for each channel and for each of the phono inputs.

The as-delivered performance of these inputs is shown as measured by CBS in the “Additional Data” table; the sensitivity of each is exactly on Philips’ specs and can be varied from 1.5 millivolts to 17 millivolts. The former extreme—sensitivity setting yields a signal-to-noise ratio of 67 dB (a little better than spec); at 17 millivolts the Signal-to-Noise ratio measures 82 dB—almost as good as the high-level inputs. The settings at which you end up using these phono-preamp sections will, of course, depend on the output of your cartridge(s) and its relationship to that of your tuner and other ancillary components.

The remainder of the unit’s performance too is good (all distortion measurements are, for example, considerably better than spec), though at first glance the lab’s square-wave-response photos may not suggest it. The ultrasonic ringing implied by the 10-KHz square wave actually appears to be the result of very sharp filtering just above 40 kHz, which is designed into some preamps to prevent the output from demanding greater slew rate than the associated power amp can deliver—therefore causing transient distortion. Though we obviously could hear no behavior that would have been less good had Philips not limited ultrasonic bandwidth, neither could we detect any ill attributable to the visually “poor” square-wave-response.

The switchable high filter, incidentally, strikes us as well calculated to suppress intrusive hiss; the low filter seems a little overenergetic in attacking rumble since it eliminates an appreciable portion of orchestral underpinning as well. When the turntable is audibly rumble-free, as one would expect in any price class comparable to that of the 572 itself, something closer to a subsonic filter might be a preferable alternative.

Over all, the internal design of the preamp strikes us as very good without being as innovative as the external design. And it is therefore the externals—the cosmetics, if you will—on which the product will stand or fall in the estimation of the user. This is an exceedingly personal matter, bound to trigger widely diverging reactions, and it therefore must be carefully assessed by each potential user for himself.

Philips Model AH-572 Preamp Additional Data

<table>
<thead>
<tr>
<th>Output at clipping (channels driven simultaneously)</th>
<th>Sensitivity</th>
<th>S/N ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>L ch</td>
<td>16 volts</td>
<td>68 dB</td>
</tr>
<tr>
<td>R ch</td>
<td>16 volts</td>
<td>68 dB</td>
</tr>
</tbody>
</table>

Frequency response: +0.5 dB, 13 Hz to 20 kHz
RIAA equalization: +0.5 dB, 20 Hz to 20 kHz

Input characteristics (for 2 volts output):

<table>
<thead>
<tr>
<th>Sensitivity</th>
<th>S/N ratio</th>
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<tr>
<td>phono 1</td>
<td>2 mV*</td>
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<tr>
<td>phono 2</td>
<td>10 mV</td>
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<tr>
<td>tuner</td>
<td>190 mV</td>
</tr>
<tr>
<td>aux</td>
<td>190 mV</td>
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<tr>
<td>tape</td>
<td>190 mV</td>
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Phono overload (clipping point at 1 kHz):

<table>
<thead>
<tr>
<th>Sensitivity</th>
<th>S/N ratio</th>
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</thead>
<tbody>
<tr>
<td>phono 1</td>
<td>160 mV*</td>
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<tr>
<td>phono 2</td>
<td>800 mV*</td>
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</table>

<table>
<thead>
<tr>
<th>Sensitivity</th>
<th>S/N ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>High filter</td>
<td>-3 dB at 5 kHz, 12 dB octave</td>
</tr>
<tr>
<td>Low filter</td>
<td>-3 dB at 110 Hz, 12 dB octave</td>
</tr>
<tr>
<td>Muting</td>
<td>-20 dB</td>
</tr>
</tbody>
</table>

IM distortion (at 2 volts): 0.0024%
THD (2 volts output, 20 Hz to 20 kHz):

| L ch | <0.0081% |
| R ch | <0.0086% |

*User variable, see text.
Stanton Calibrates a New Leader


Comment: Ideally, the stylus used to play a record should be identical in shape to the one used in cutting the master from which the disc was made. The problem with this approach is, of course, that such a stylus would cause rapid wear indeed. So here—as elsewhere in audio—compromise is necessary.

General practice has been to make the contact area between stylus and vinyl as small as possible in the direction of groove travel (so as to trace the groove accurately without gouging it) and as long as possible from top to bottom (to provide the largest possible bearing surface and minimize wear). This was the direction taken first by the elliptical stylus, then the Shibata, and then by the Stereohedron, introduced by Stanton's sister company Pickering specifically for playing stereo discs. Stanton has, partly through skillful use of electron microscopy, developed an improved Stereohedron for the 881S.

While this pickup is capable of tracking the "torture test," administered by the CBS Technology Center, at a vertical tracking force of 6.5 millinewtons (0.65 gram), the manufacturer's preferred setting is 10 millinewtons (1 gram). With this VTF, the 881S performs very well in the maximum tracking level tests, although not quite as well as the 681EEE that preceded it at the top of Stanton's Calibration line. Second harmonic distortion is (like that of the 681EEE) better than average. The newer pickup has less spurious second harmonic at high frequencies, and this, despite slightly higher IM, seems to make it somewhat smoother sounding than its predecessor.

With its recommended load of 47,000 ohms in parallel with 275 picofarads, the new Stanton has a frequency response that remains within 1/2 dB of perfect flatness between 100 Hz and 6 kHz. Across that range the channel separation is 25 dB or better, with the match between channels within 1/2 dB. Below 100 Hz the response falls off a trifle, reaching −1 dB at 20 Hz while maintaining the same standard of channel matching. Above 6 kHz each channel begins to show a mild peak, that in the left reaching +2 1/2 dB at 20 kHz and that in the right +1 dB at about 12.5 kHz before returning to 0 dB at 20 kHz. Generally, the 881S has slightly better separation than the 681EEE and a somewhat more extended—and well controlled—high end.

At 1.33 millivolts per centimeter per second, the output is on the high side for a top-of-the-line pickup. Compliance, as shown by a resonant frequency of 8.4 Hz in an SME 3009 arm, is moderately high; since this frequency is a bit on the low side, the pickup should be happier with a somewhat less massive arm. Vertical tracking angle measures 25 degrees, distinctly higher than the nominal standard of 15 degrees.

Microscopic examination confirms that the stylus has a large contact area and that its finish and alignment are very good. Square-wave response shows virtually no overshoot, mild undershoot, and heavily damped ultrasonic ringing.

In the past, we sometimes had experienced difficulties with the type of dust brush that comes integrally mounted on the 881S. This time, after we set it up according to directions, the brush-equipped cartridge did very well in tracking our favorite warped, thin-stock disc. Stanton claims that the brush actually adds damping to the cartridge/arm system and hence helps in tracking warped records; on the basis of our experience with the 881S we can see no ground for arguing the point.

Records heard via the Stanton sound bright, clear, and detailed, with an especially smooth high end. Sharp, quick transients such as those found on direct-cut discs from Telarc, Sheffield, and Umbrella are taken in stride and reproduced with a stunning sense of presence. The stereo image is vivid, plausible, and stable. In the short time that we have known the pickup it has become one of our favorites.

If our elation concerning the 881S collides with any aspect of its reality, it is the price, which begins to approach the realm of imported moving-coil exotica. The Stanton is certainly competitive in this league, however, and we would expect its sound to tempt many a music lover into parting with the required cash. For those in whom parsimony vies with aesthetic sensibility, the large contact area of the Stereohedron stylus offers, in addition, low record wear and the ability to salvage worthy sonics from some well-worn discs. And professional (and semipro) users will doubtless find the individual calibration that accompanies each unit useful. Overall, it sounds like a good deal to us.
Onkyo’s A-7 Integrated Amp: Virtue in Reticence


Comment: If, as is generally thought, lack of personality is a commendable feature in an amplifier, the Onkyo A-7 can be said to have achieved a considerable measure of virtue. It plays music with minimal coloration, can be put through its paces without special effort or understanding on the part of its human master, and is reasonably tolerant of vagaries in the other components with which it must be used. Furthermore, its sections are well balanced—no one is far above or below the general quality of the whole.

The Onkyo A-7 is exceptional in that it has a 4-ohm rating (70 watts—18 1/2 dBW—per channel) as well as one for 8 ohms (65 watts/18 dBW per channel). Data taken at CBS Technology Center verify that the ratings are accurate with a comfortable margin of safety. At rated power, the total harmonic distortion averages only a third of its specified value (0.1%) and barely exceeds 0.06% at 20 kHz. Distortion components remain small down to low power levels and are close to the noise floor of the amp (which is itself quite low at 90 dB below the rated 18 dBW output for the high-level inputs) as far down as 20 dB below full power. IM distortion is somewhat lower than specified with an 8-ohm load and somewhat higher with 4 ohms. The bandpass is a little wider than average, especially at the bass end, where a square wave is reproduced with surprisingly little tilt. The -3 dB point at the high end is beyond 70 kHz. The damping factor is adequate.

The phono equalization is exceptionally accurate and the overload point more than adequate for almost any conceivable circumstance. Signal-to-noise ratio of this section is very good at 75 dB re full output (equivalent to 87 dB re a 10-millivolt input). The choice of circuit geometry for this stage seems felicitous, for we are unable to find any evi-

### About the dBW

We express output power and noise in terms of dBW—meaning power in dB with a reference (0 dBW) of 1 watt. We repeat herewith the conversion table so that you can use the advantages of dBW in comparing current products with those we have reported on in the past. You can, of course, use the figures in watts that accompany the new dBW figures for these comparisons, but then you lose the ability to compare noise levels for outputs other than rated power and the ability to figure easily the levels to which specific amplifiers will drive specific speakers—as explained in the June 1976 issue.

<table>
<thead>
<tr>
<th>WATTS dBW</th>
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<tbody>
<tr>
<td>1.00</td>
<td>0</td>
<td>10.0</td>
</tr>
<tr>
<td>1.25</td>
<td>1</td>
<td>12.5</td>
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<tr>
<td>1.6</td>
<td>2</td>
<td>16</td>
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<td>63</td>
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<tr>
<td>8.0</td>
<td>9</td>
<td>80</td>
</tr>
</tbody>
</table>
dence of undesirable interaction with phonograph cartridges.

The control panel of the A-7 is distinguished by its large, open design and rather unusual layout. The controls that are used most frequently are on the upper two-thirds of the panel. The oversized volume control knob has thirty-two detented positions. The four-position input selector handles two phonos, tuner, and auxiliary. It functions in conjunction with the adjacent three-position monitor switch that expands the switching capability to include two tape decks. Dubbing between the decks—in either direction—is determined by the next three-position switch and is independent of the selector position. Thus, dubbing between decks can take place while listening to another source. The bass and treble controls have eleven switched positions. Below each tone control is a three-position turnover switch (125 Hz, DEFEAT, 400 Hz for the bass, and 2 kHz, DEFEAT, 8 kHz for the treble) with actual 3-dB turnover points reasonably close to the frequencies indicated.

Two sets of loudspeakers can be handled in the conventional A/B, A + B manner.

The less frequently used controls are clustered on the lower third of the panel. Of these, the subsonic and high cut filters are relatively ineffective, and the BALANCE has no detent to identify the equal gain position.

Besides the normal complement of inputs on the rear panel (including a removable link between the preamp and power amp) there are three convenience outlets (one of which is switched) and a set of speaker fuses. Connection to the speakers is via color-coded binding posts that are most suitable for bare-wire connections. There are molded off-center slots on the connecting strip that guide the wire into position so that the strands wrap around the post as it is tightened.

The Onkyo A-7 is a competent all-around performer with sufficient power capability for most applications. The LOUDNESS, whose quite mild contour introduces enough bass and treble boost at low volume levels to help restore the tonal balance without overwhelming the music, is more felicitous to our ears than many. The selectable turnover tone controls are a boon. When they are set for 125 Hz and 8 kHz it is easy to taper the extreme ends of the spectrum without altering the midband balance—and that, to many serious music lovers, is what a tone control is for.

The exceptionally clean and sharp phonograph preamp, one of the strongpoints of the A-7, is virtually overload-proof. For its price, the A-7 comes notably close to doing what an amplifier is supposed to do—amplify and nothing else. When alteration of the signal is called for the control section generally is willing and competent. The Onkyo A-7 reproduces music—subtly and without introducing its own personality.
Now there's a speaker at $139 ($145 east of the Mississippi) that has actually been compared to our phenomenal $1200 Quantum Line Source™.

Our new Qa™.

It was conceived with much of the same advanced technology and all of the commitment to excellence that gave birth to the Quantum Line Source.

Both have our EMIT electromagnetic induction tweeter™, driven by magnets of the most powerful magnetic material in the world: Samarium Cobalt.

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A special cone treatment and other advances in our low-mass, high-excitation Q-woofer™ delivers startlingly accurate bass as well as extraordinary midrange — the kind associated with 3 and 4-way systems.

Efficiency? You can drive Qa with as little as 15 watts/channel or as much as 150 — comfortably.

Now we're not saying that the modest price of the Qa buys you $1200 worth of speaker. But we are suggesting that you'll be bowled over by the price/value comparison with QLS.

And when you compare Qa with other legendary speakers, a remarkable thing happens. Speakers that used to sound great now sound wrong.

Get over to an Infinity™ dealer. A toll-free call to 800-423-5244 will tell you who and where he is. Test Qa (and our $180 3-way gem, Qb) with the fire and drive of Dave Grusin on Sheffield, the introspection of Almeida on Crystal Clear, the presence and transparency of Randy Sharp on Nautilus.

Listen for proof: here's everything you'd expect from Infinity.

Except the price.
The luxury a difference:

Sansui’s new 9090DB top-of-the-line receiver adds Dolby to its other luxury credentials — big power, an extremely fine tuner section and great versatility. The Dolby circuitry will not only decode Dolby FM broadcasts; it can also encode and decode tape recordings for reduced noise and hiss.

And, of course, with the Sansui 9090DB you can creatively determine just how you like your music. In addition to bass and treble controls, with turnover selectors for 150 Hz/300 Hz and 1.5 kHz/3 kHz respectively,

The Sansui 9090DB.

The Sansui 9090DB.

A whole new world of beautiful sound.

Sansui

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CIRCLE 53 ON READER-SERVICE CARD
there is also a midrange control. High and low filters. A tone defeat for bass and treble. A loudness switch and 20 dB audio muting switch. For added creative freedom, two tape monitors and a mic mixing circuit with separate level control. Two tuning meters, as well as twin power meters that also serve for Dolby tone calibration.

Listen to the 9090DB. Handle its superbly smooth controls. See how they respond to your slightest command. We know you will fall in love with Sansui.
No matter what anyone tells you, you don’t get better for less. You get what you pay for. That’s why, when you’re looking for quality stereo, you may have to spend a little more for Marantz...the finest audio equipment you can buy.

The Marantz 2500 is unquestionably the world’s most powerful receiver. It delivers an awesome 250 watts per channel (minimum RMS at 8 Ohms, 20-20,000 Hz) with no more than 0.05% THD! And yet it conveniently fits shelves or cabinets.

The Marantz 2500 handles its tremendous power effortlessly. An especially designed Marantz toroidal dual power supply lets each channel perform unaffected by the power demands of the other. There are more innovations, like the tunnel “pin fin” heat sink, the most efficient cooling system on the market.

Full complementary symmetry direct-coupled output circuitry, for highest reliability. Two LED peak-power indicators show when the amplifier is at full output. A built-in oscilloscope gives unequalled tuning precision. While the 5-gang FM tuning capacitor and dual-gate MOS FET FM front end comprise the most advanced tuner you can buy. The ultra-sophisticated noise-filtering system incorporates convenient plug-in optional Dolby FM noise reduction circuitry plus the 18 dB per octave 9 kHz Bessel-derived high filter and 15 Hz sub-sonic Butterworth low filter.

If you’re a music lover who will accept nothing less than the very finest...tell ‘em...you want Marantz.

*FM Dolby Labs, Inc.

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20325 Nordhoff St., Chatsworth, CA 91311

Prices, models and specifications subject to change without notice.
them ever since. If trapped in a concert hall when either piece is being played it takes a great effort of will to stop myself from leaping up and yelling ‘Drop!’ at each four-minute cross-over point.

That is an example of an induced allergy. But what about the real ones, the ones that you are born with and that, if you are a recording producer, you may have to disguise if you want to stay employed? After all, it takes a brave man to declare that he can’t hear Puccini just when he has been assigned to produce the latest Butterfly. The trouble is that we are all to varying extents victims of fashion: if you abominate Beethoven and happen to be a dentist, the worst that can happen is that you will be regarded as an eccentric and risk the loss of a few Beethoven-loving patients, but if you are a music student of similar persuasion, you may become an outcast. Even when you are established you risk ostracism if you so much as nudge a sacred cow, which almost happened to me some years ago when fate decreed that I should produce four recordings of Beethoven’s Seventh virtually one after the other. This led me to express the opinion that the Assai meno presto in the third movement was the most boring, pretentious clodhopping music ever committed to paper and that it made me sick to see conductors drooling over its spurious profundities instead of treating it as the rather poor Austrian folksong (or imitation thereof) which it actually is. This mild observation caused sensitive ladies to faint and worthy gentlemen to turn their backs.

The fact is that we are alternately inhibited and two-faced about our allergies. I can think of one well-known conductor who dares not mention the fact that he loathes Mozart’s operas. Fifty years ago you would have been thought eccentric if you admired Mahler, whereas today you are eccentric if you do not. Size also has something to do with the case in an inverse sort of way: It is permissible to attack Wagner’s Ring or Beethoven’s Ninth, but it is a heresy to suggest that even some of Haydn’s symphonies are workaday trifles or that the only thing that makes Stravinsky’s Mass bearable at all is its extreme brevity.

I am conscious that these views may cost me whatever reputation I have left. Yet, in the unlikely event that any record company should take pity and become concerned about my chances of earning a living henceforward, I must state that whatever happens I shall never be in the market to produce the complete unaccompanied viola sonatas of Max Reger.

---

To find out how much better our cartridge sounds, play their demonstration record!

There are some very good test and demonstration records available. Some are designed to show off the capabilities of better-than-average cartridges...and reveal the weaknesses of inferior models. We love them all.

Because the tougher the record, the better our Dual Magnet™ cartridges perform. Bring on the most stringent test record you can find. Or a demanding direct-to-disc recording if you will. Choose the Audio-Technica cartridge that meets your cost and performance objectives. Then listen.

Find out for yourself that when it comes to a duel between our cartridge and theirs...we’re ready. Even when they choose the weapons! What you’ll hear is the best kind of proof that our Dual Magnet design and uncompromising craftsmanship is one of the most attractive values in high fidelity. For their records...and yours!

Audio-Technica

Audio-Technica U.S. Inc.
Dept. 117H, 33 Shiawassee Avenue, Fairlawn, Ohio 44313
In Canada: Superior Electronics, Inc.

Innovation - Precision - Integrity

November 1977
HiFi-Crostic No. 30

by William Petersen

INPUT

A. Original manufacturer of De Forest's Audion (init. and last name)
B. 300-3,000 MHz (2 wds.)
C. Company sued by De Forest over high-vacuum patient (2 wds.)
D. First president of American Radio Relay League (full name)
E. Science of sound
F. Agency that controls transportation (abbrev.)
G. Component of pickup cartridge consisting of shear plates (2 wds.)
H. Piccolo (Ger. abbr., 2 wds.)
I. Italian tenor in first Met broadcast, 1910 (full name)
J. Teased, rode (slang)
K. Electrical engineer at Ward C., taught Alexander radiotechnology

OUTPUT

L. Rapid alternation of low chest voice and falsetto
M. Davenport song. The lark now leaves his willow
N. Early Ed Sullivan variety show (4 wds.)
O. English physicist (1861-1940), Invented tuning (full name)
P. Stravinsky ballet, Les
Q. Plantive song of Bolivian Andes
R. Loving (fl)
S. Part of speech
T. Smoothed by an added relative load
U. Stitched
V. Schumann song cycle (2 wds., Eng. title)
W. Device to magnify electric impulses
X. Long waves of visible spectrum
Y. Lifelong assistant of Marconi

Solution to last month's HiFi-Crostic appears on page 6.
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Notice: Please allow 5-8 weeks for first copy to be mailed.
How to prove Dolby FM to yourself.

Remember the first cassette recorders with the Dolby system, back in the early 70's? The advantages were easy to prove to yourself. You flipped the Dolby NR switch. Now you heard it, now you didn't. You were impressed.

A few years later and along comes Dolby FM, which you'd like to be just as convinced about. The same 10 dB's are still there. But, unfortunately for demonstration purposes, they are used in a more subtle way. Let's face it, the effect is hard to hear most of the time (that's compatibility for you). To make a convincing test is tough; you can't get your hands on the controls of the local FM station the way you'd like to (Dolby FM is an encode-decode process).

Well, here's how to overcome these problems and make a quick test that will enable you to hear one of the main effects of Dolby FM. The demo is artificial, but technically valid.

1. Using a receiver with full Dolby FM capability, defeat the inter-station muting switch.
2. Tune to a vacant place on the dial to get pure high-level hiss as a test signal (the extreme ends of the dial are usually good for this).
3. Switch back and forth between Dolby FM and conventional FM.
4. Listen to the increased high-frequency content in the Dolby FM mode. The difference should be very obvious.

In the Dolby FM position the test signal will have a wide-range, open quality. The conventional FM hiss will be muffled. This is the high-frequency, high-level capability difference between Dolby FM and conventional FM. All the highs on the record at the station can actually get through. This allows the rest of the receiver to do its job properly; the other specs on the unit become more meaningful.

Technical Note

The use of wideband noise is becoming increasingly popular in testing audio equipment and acoustical characteristics. Interstation noise is equivalent to an FM carrier which is modulated with high-level white noise. This is a suitable signal for checking the high-level, high-frequency capability difference between Dolby FM and conventional FM. Relating the test result to actual listening, the difference shows how conventional FM muffles loud musical signals containing significant amounts of steady-state or transient high-frequency energy (for example, the steep waveforms of percussion and brasses).

Low-level noise reduction, the other half of Dolby FM, is harder to demonstrate at will. Needless to say, most stations transmit silence as rarely as possible. In any event, you have heard low-level noise reduction before; Dolby FM gives 5 dB worth.

This should help you get a better handle on Dolby FM. Not only a theoretical improvement, but one you can prove to yourself.

August 1977 Dolby FM statistics: In U.S.A., 72 FM stations in 10 metropolitan areas plus 101 other cities with Dolby FM encoders; 14 in Canada; 17 in other countries. 24 manufacturers with 62 different tuner and receiver models incorporating Dolby FM decoder circuits.

Dolby Laboratories Inc
731 Sansome Street
San Francisco CA 94111
Telephone (415) 392-0300
Telex 34409
Cable Dolbylabs

346 Clapham Road
London SW9
Telephone 01-720 1111
Telex 919109
Cable Dolbylabs London
Why "the higher, the better" is not good enough

Interpreting

To make sense of the specifications of a power amplifier is not generally a momentous task. You can look for the power you want, the lowest distortion you can find, frequency limits of 20 Hz and 20 kHz or better, and low noise, then audition the unit you've chosen with at least a reasonable expectation of hearing something good. But the job an amplifier does is not all that complicated.

A signal entering the antenna terminals of a stereo FM tuner, on the other hand, goes through a multitude of changes before appearing as audio output, and this complexity alone is enough to generate a bewildering array of specs. Worse yet, since the various specs interact in such a way that improving one often will degrade another, you cannot cover yourself by looking for the best you can find in each parameter. To evaluate a tuner sensibly, you need a firm grasp on what aspect of performance is described by each number and its relative importance for your particular situation. In short, you need to know what you must have and what you can trade away to get it. And you will have to trade.

Consider selectivity, sensitivity, capture ratio, frequency response, and distortion. A tuner can be made more selective—that is, better able to reject stations near the frequency of a desired station—by narrowing its IF bandwidth (that is, the "dial space" with which the intermediate-frequency section deals in tuning a particular station). More than likely, sensitivity—the tuner's ability to provide noise-free reception from weak signals—also will be enhanced. But the capture ratio will get worse, high-frequency audio response may be adversely affected, and the distortion content of the audio probably also will be increased. In a rural area far from transmitters, sensitivity may be paramount; in a metropolitan area with lots of local stations, it may be barely significant. But with many stations sharing the FM band in an urban area, it is more likely that stations will fall close together in frequency. For good reception, the tuner will need sufficient selectivity to reject unwanted stations while tuned to the desired one.

Unfortunately, improved selectivity is at odds with good capture ratio—also a desirable attribute.
in a "metropolitan tuner." Because of the many reflective objects around—buildings, aircraft, etc.—FM reception in and near a city frequently is plagued by multipath problems. The reflected signals confuse the tuner and cause an increase in distortion—especially in the stereo mode. The first line of defense against multipath reception is a highly directive antenna, but a good capture ratio enables the tuner to suppress the late-arriving signals—which, from the tuner’s point of view, resemble different transmissions on the same frequency. Capture ratio measures the tuner’s ability to suppress all but the strongest of these.

So here’s a case where two specs (selectivity and capture ratio), each important for good reception in the same locale, conflict. You will have to look at the frequencies of your favorite stations and decide whether you are more afflicted with multipath or with alternate-channel interference.

Some tuners, we hasten to point out, manage through superior design to achieve a better compromise between conflicting specs than others do, but a compromise it remains. Faced with this basic tradeoff, some designers have introduced switchable-bandwidth tuners—those that provide a choice between high selectivity (narrow band) and high performance vis-à-vis distortion, capture ratio, stereo separation, etc. (wide band). Such tuners, in effect, allow you to make the tradeoff, at least in part, yourself—and to alter the chosen compromise at will depending on the specific reception problems of the moment.

The spec that seems to catch everyone’s eye first, no doubt because it long has been shown so prominently in tuner advertising, is the so-called minimum usable sensitivity. This terminology is unfortunate, since an audio signal recovered by a tuner operating at this point is hardly usable. “Usable sensitivity” of a tuner is defined as the minimum input power (in dBf) required for the noise and distortion components in the output to be suppressed by 30 dB. (Note that this is a mono sensitivity figure.)

Minimum usable sensitivity is measured at three different frequencies across the FM band (90, 98, and 106 MHz) for our test reports. The figures give an idea of the uniformity in sensitivity across the dial. Most measurements are made only at the midband frequency of 98 MHz. Good uniformity in sensitivity would suggest that the other lab data also are valid across the band. You can expect reasonable similarity—a spread of 1 dBf or less—in the three measurements; gone (fortunately) are the days of tuners whose performance deteriorates badly toward the ends of the dial.

Far more meaningful as a sensitivity figure is the power input (in dBf) required to achieve 50 dB of noise suppression. The lower this figure, the more sensitive the tuner. Average these days seems to be about 13 1/2 dBf in mono and 36 dBf in stereo. Note that the average tuner requires almost 23 dB more—roughly 200 times as much—input to achieve fairly quiet stereo operation than it does for equally quiet mono. That’s why many stations on your dial will sound cleaner in mono than in stereo.

The minimum input power at which the multiplex circuitry in the tuner recognizes that the broadcast is in stereo and switches accordingly is called the stereo threshold. There is no particular reason to favor a low stereo threshold. If sufficient quieting (at least 40 dB) hasn’t been achieved by the threshold point, you are unlikely to want to listen in stereo anyway. (Remember, below the threshold, the tuner will still receive the broadcast—but in mono rather than in stereo, and with less noise.) The stereo threshold, therefore, represents a point of information rather than a criterion of merit.

Other important aspects of tuner performance are how rapidly quieting improves with increasing signal strength, what the ultimate level of quieting is, and what happens when even stronger signals are received. In actual use, a tuner will seem more sensitive if it reaches its ultimate level of quieting at a relatively low level of input signal. Most tuners achieve ultimate quieting with 65 dBf or less of input signal, so by convention the quieting at that input level is defined as the signal-to-noise ratio of the tuner, both in mono and in stereo. The average stereo S/N ratio these days is about 65 dB; that for mono is about 70 dB or more and repre-
What to Look for
(and What You'll Find)
in the Tuner Ads

Advertising copywriters have a way of throwing out phrases ("epitaxial snark" or whatever) as though they represent unquestioned virtue-features to be conjured with however obscure in import. That's their business, just as it's ours to make plain as many rough places as we can. With that in mind, we offer the following notes.

Phase-Locked Loop: This circuit for demodulating stereo information performs better than earlier demodulators and eliminates a number of costly parts. Both objectives are worthy—so worthy that you'll be hard put to find a current high fidelity tuner without PLL.

Tuning Meters: A variety of virtues and a few sins are covered by the term. Cheapie tuners and receivers have simple signal-strength meters, which—if they're any good—help you tune the station but not as quickly or as unequivocally as channel-center meters, which are standard from moderate price points up. Several types of metering address themselves to multipath distortion; their utility will depend on the behavior of the specific meter, on the severity of multipath problems in your area—and on whether you have an antenna rotator.

Scope: The next step up from meters (in price, anyway) is a small oscilloscope that gives you a visual display from which a number of signal parameters (including tuning, modulation, and multipath) can be judged simultaneously. It won't necessarily let you tune better than a good set of meters, but it may do so a bit faster. And it looks mighty sexy.

Interstation Muting: Virtually every FM device has for years had this feature, sometimes with a defeat switch or muting threshold control so you can "get at" extremely weak stations. A second-rate design produces loud "thumps" every time you pass a station in rapid tuning; the better ones mute even this annoyance.

High Blend: For any particular signal strength, mono reception is almost always more noise-free than stereo reception, and the noise difference increases as the received signal gets weaker. One way of suppressing stereo noise is to switch to mono; a useful in-between option preserves separation through the midrange (which largely determines stereo imaging) and cancels it in the highs (where the noise is most annoying) by blending the two channels. In a weak signal area this feature is virtually a must for stereo reception.

Automatic Frequency Control: Way back when, tubed tuners were subject to "drift" that would take them well off channel as they warmed up. AFC prevented drift, but at a price in distortion. So AFC virtually disappeared on component-grade solid-state equipment. Now it's back in forms that bypass the distortion, but it's a nicety rather than a necessity.

Bandwidth: Intermediate-frequency (IF) bandwidth is what's referred to in those high-end units having a control so labeled. See the accompanying article for an explanation.

IF Filter: You won't see as much in today's ads as you once did about filter construction (crystal, Butterworth, for example), skirt characteristics, symmetry, and whatnot. Fine. The real story is in the specs, which of course reflect filter quality.

FETs and MOS FETs: The virtues of field-effect transistors, used in tuners partly for their wide dynamic range and hence relative freedom from overload with strong incoming signals, are described better by the specs they achieve than by any in vacuo consideration of their nature.

Dolby: Here the obvious consideration is whether you have Dolby-encoded broadcasts in your area—or are likely to get any in the near future. If not, the feature has no value for you. If so, give the edge to a Dolby feature with the decoding circuitry built in. The alternative—Dolby switching to accommodate an outboard Dolby decoder—may be harder to set up and use (depending on the decoder, especially if it is built into a tape deck, even with a DOLBY-FM switch of its own), and the outboard decoders are getting more difficult to come by.
While the 50-db quieting point is a convenient reference, it does not represent really enjoyable listening: noise suppression that low is not usually tolerated in other high fidelity components. It would be nice to know how much signal is needed at the antenna for 55 or 60 db of quieting. This information is not usually contained in manufacturers' spec sheets, but it can easily be read from the graph of sensitivity and quieting characteristics included in our test reports.

At the other extreme is the ability of the tuner to cope with very strong signals—an important consideration if you live near a transmitter. A tuner whose quieting curves remain low above 65 dBf is coping well; if these curves rise at the high-input end, indicating overload and deteriorating performance, the model in question is less appropriate for urban use.

Frequency response of a tuner generally is restricted to the range between 20 Hz and 15 kHz. Though FM-transmitter performance need not be maintained to beyond 15 kHz, in some new tuner designs that remove the 19-kHz stereo pilot by cancellation rather than by means of a filter the upper limit extends to around 18 kHz. The extra bandwidth will have little, if any, audible significance. Mono response is apt to be a trifle flatter than stereo response, but the difference is small: The average spread is under ±1½ dB in mono, ±1½ dB in stereo. It is not unusual to find the response trailing off below 30 Hz. Many designers do this to minimize low-frequency thumps while tuning and to make the low-frequency cue tones often used by broadcasters less audible.

Finding averages for channel separation is a bit more problematic. Tuners vary widely in just how much separation they achieve and in the frequency range over which they achieve it. Most manufacturers specify separation only at 1 kHz. In our test-report curves we show separation to 15 kHz and tabulate the best separation (40 dB, if the tuner can manage it—which most can these days) that it maintains throughout at least a reasonable portion of the critical midrange, together with the limits of the frequency band over which it is maintained. In addition, we show the frequency limits over which a figure 10 dB poorer (therefore, generally 30 dB of separation) is maintained. For practical purposes, 30 dB of separation seems adequate, even in the midband: FM stations' source material usually is records, and channel separation in the pickups used to play them generally is no better than this. So separation is more than adequate in the large majority of today's tuners.

Low total harmonic distortion is of course a paramount consideration. We tabulate the lab data for both the stereo and mono modes at three different modulating frequencies—80 Hz, 1 kHz, and 10 kHz. Again, mono performance is typically better than stereo, especially at 10 kHz. At 80 Hz and 1 kHz, the average tuner in the mono mode might exhibit under 0.15% THD, a bit more at 10 kHz. In stereo, you're more likely to find about 0.25% at 80 Hz, 0.20% at 1 kHz, and 1% (sometimes considerably more) at 10 kHz. The IIF/IEEE standard calls for measurement of high-frequency THD at 6 kHz, and this is the route taken by most manufacturers in their spec sheets. We believe that the 10-kHz measurement can be a more revealing test of the tuner and have therefore retained it, even though it is stretching a point to call the spurious frequency components revealed thereby "harmonic distortion." THD is, after all, really a "total garbage" measurement—distortion and noise.

You can glean further useful information about harmonic distortion (at 1 kHz) from the sensitivity/quieting graph in our test reports. The difference between the noise-only curves and the corresponding noise-plus-distortion curves represents distortion. Where the noise curve is low and the noise-plus-distortion curve relatively high, so is distortion: where the two curves are close together, distortion is swamped by noise, which therefore will be the factor limiting your enjoyment. So by examining the curves you can get some feeling for the way noise and distortion vary relative to one another with different input signal strengths.

For technical reasons, intermodulation in tuners is measured differently from the way it is done for other equipment; our interpretation, therefore, is not quite the same. We view it as an index of high-frequency distortion in the mono mode. Typically it runs about 0.1%.

The tuner must suppress the 19-kHz pilot and 38-kHz subcarrier signals and all other by-products of stereo multiplexing that may contaminate the audio output, especially if the broadcast is to be taped. If these extraneous signals find their way into the tape recorder, they can "confuse" a Dolby circuit and result in a poor over-all frequency response or, if they're severe, result in intermodulation whistles on the tape. Fortunately, the average tuner knocks each of these pollutants down by about 65 db, and that should be adequate.

Capture ratio, again, is a criterion that tends to conflict with selectivity, both of which have an effect on distortion and separation. For the record, the "typical" tuner has a capture ratio a bit under 1½ db (the lower, the better) and an alternate-channel selectivity of 70 db (the higher, the better).

As with other equipment, lab data and specs alone do not tell the full story. How does the tuner act in practice? Is the tuning precise? Is the mute effective? How useful are the tuning meters? The answers to these questions and others of like importance appear in the text of our reviews—not in the tables and graphs.
The barriers to better TV sound have seemed so immovable, so final, for so many years that Americans can be forgiven some resignation on the subject. But new forces are at work that promise to upgrade TV sound at last.

The problem, now boringly familiar, is a four-stage chicken-egg bind. The low quality of sound pickup at TV origination points, mostly major network stations, has been matched by that of the distribution system (in the past mainly the Bell System), the local TV stations, and, above all, TV receivers in viewers' homes. Obviously, improving just one link in this chain has little immediate effect, and higher quality has been firmly resisted at each stage, pending improvements in all the others.

But the barriers of origination and distribution are now under heavy attack. As the flow of high fidelity begins to jam up at the local TV station, will the pressure to improve that station rise and will the shock waves reach the receiver in the home so that listenable audio can reach the ear? It seems likely that they will. The forces behind the changes are the commercial industry itself and the Public Broadcasting System in Washington, the national organization of public television stations. PBS is organizing a distribution system with superlative audio quality, even though it can't be fully used at the receiving end for some time.

In the past, the microphone technique used at the sound pickup point in commercial TV has been based on a single imperative: 'Keep the mike out of any possible camera view!' When the norm was a single mike, this rule obviously gave an audio man tough, often insoluble, problems in trying to get even reasonably accurate representation of a musical group. That is being changed by a shift to the multimike techniques that have been common in recording for a long time. Now the audio man can mix his mikes (via a multi-input console) into the final sound in any proportions he wants. In this way, despite less than optimum positions of the microphones, he can get a balanced sound.

The recording of the audio material is also due for radical change. TV sound traditionally is recorded on a track on the edge of the video tape, via an extra audio head on the video tape recorder. But the audio gets a tiny track because the picture needs every millimeter of tape it can get. Even the tape is wrong for audio; it is formulated for best response with video signals themselves, the audio being left essentially to fend for itself. Also, the rotating video heads vibrate the tape continuously, producing serious flutter in the audio.

New Hope for TV Sound
An observer of the broadcast industry sees encouraging significance in some recent behind-the-scenes developments.

What's the solution? Record the audio on a separate, high-grade audio machine. This "double system" recording has become practical and attractive with the development of effective, comparatively inexpensive systems for keeping the video and audio machines synchronized. The commercial TV networks are using double-system recording only occasionally, on major musical programs and—at ABC, at least—on elaborate musical programs. But the equipment and the skills are there, fully developed and ready for the TV sound revolution. NBC is currently upgrading the audio facilities at its headquarters and can even now deliver high quality sound—in mono or stereo.

Public television stations have often relied on the double system. WGBH-TV in Boston, which originates many top musical programs for the public network, uses thirteen or fourteen mike inputs, mixed down to four channels on tape. These top-grade tapes have in the past been mixed down again to mono before the programs go out for Bell System distribution, but the tapes are ready for any better days that might be coming.

Those better days are also getting a boost from the PBS plan to use satellites for distributing programs to the public television stations. Last January the Federal Communications Commission approved a detailed plan for a major satellite transmitter near Washington, with regional transmitters across the country and earth stations at or near all PBS affiliates, for a much cheaper, more flexible, higher-quality program delivery than PBS has had up to now. The $40 million needed to implement it is committed, with various sources contributing. The plan includes a system called DATE (digital audio for television), which will put four top-grade audio channels in digital form alongside the picture. PBS has gone ahead with DATE, even though no local stations can use it yet. Until TV transmitters and home receivers are equipped for stereo sound, PBS will send along with the DATE signal a mono audio signal on an FM subcarrier. Thanks to the wide bandwidth of satellite links and the high level of equipment and care used at the points of origination, this signal is significantly better than what has been available.

The Bell System itself has not remained dormant during all these developments and has used some experimental equipment in recent simulcasts—transmissions in which the TV audio is sent simultaneously via an FM station. (New York's Lincoln Center has been a pioneer in this area.) Bell has even toyed with the idea of using DATE.
Although it apparently turned down multichannel audio as too expensive to be justified in the commercial telephone system at this time, it has introduced its own diplexing system for mono TV audio, currently being installed by all three commercial networks and planned for operation early next year. In a diplexing system (DATE is one as well), the audio is put on a separate carrier on the same channel as the video. Video distribution networks have bandwidth that can easily accommodate a high-grade audio signal alongside the video, whereas the standard telephone lines used for TV audio for so many years are limited to 5 kHz, are comparatively noisy, and have little dynamic range.

What is the outlook for getting the better quality through the last two segments of the system—the local TV station and the home receiver? The basic (FM) audio quality of the standard TV transmitter is quite good; and any important change—especially adapting TV transmitters for stereo broadcast—will require comprehensive industry study followed by some sort of FCC standardization. The Joint Coordinating Industry Committee, made up of representatives of the commercial networks, Bell, the public TV stations, and the manufacturing groups, has been examining television technology for several years to identify those aspects that need improving. The subcommittee on TV sound, chaired by Dan Wells of PBS, has made a number of important recommendations in this area, but it is unlikely that they will be implemented in anything less than five years.

We can only hope that when that does happen, competitive pressures will encourage at least some TV receiver manufacturers to take advantage of the improved audio signal available to home viewers. It would be optimistic to expect real high fidelity from in-cabinet speakers (although considerable improvement is possible), so the sets seeking very high audio quality will probably go to outboard speaker modules. Detector outputs (with the necessary power-line isolation) can also be added at relatively modest cost to provide the owner of a component music system with audio signals comparable to those from an FM tuner.

Meanwhile, you can get sporadic and tantalizing foretastes from simulcasts. Considering the pace at which TV audio is developing, it looks like you won't be waiting too long for the real thing.
In this photo from the Stubblefield family collection, the inventor and his son Bernard stand outside the Murray (Ky.) farmhouse with his "raidio" apparatus. Flanking the "crazy box"—the transmitter—are the receiving device and the ball-tipped rods used with it.

Nathan Stubblefield
The Radio Prophet of the Kentucky Fields

Marconi, Fessenden, and DeForest have their places in radio's history, but Stubblefield was the first to broadcast speech and music.

by Harvey Geller

Most of the residents of Calloway County, Kentucky, in the last decade of the nineteenth century must have chuckled when an inordinately eccentric young vegetable farmer suggested that he had invented a portable wireless telephone that could broadcast voice and music over high buildings and through stone walls. And they probably howled with laughter when he revealed his "crazy box," together with an odd assortment of batteries, rods, and coils.

Today, eighty-odd years later, descendants of Harvey Geller is an account executive for Billboard Publications, Inc., and the West Coast editor for Cashbox.

those detractors are christening radio stations, dedicating libraries, and constructing monuments in his honor. But this veneration is hardly more than local. Residents of Murray, Kentucky, may agree that Nathan Bernard Stubblefield was the first man on earth to transmit and receive the human voice without wires, but most of the world is unacquainted with his improbable name, and even his proponents are unaware of the precise date of his discovery. Evidence points to the period from 1890-92, at least seven years before Guglielmo Marconi sent the first wireless telegraph message across the English Channel and eight he-
After his successful demonstrations in Washington, D.C., from the deck of the steamship Bartholdi, and in Fairmont Park in Philadelphia, Stubblefield posed with his wife, six of their children, and his then-celebrated broadcasting gear. In the foreground are mementos of his brief time in the limelight: photographs of the Bartholdi on the Potomac (left) and of the crowd in Fairmont Park.

fore Reginald Fessenden demonstrated radio voice transmission in the U.S.

Stubblefield's name and invention are set off against Marconi's by Trumbull White in a book titled The World's Progress, published in 1902:

Of very recent success are the experiments of Marconi with wireless telegraphy, an astounding and important advance over the ordinary system of telegraphy through wires. Now comes the announcement that an American inventor, unheralded and modest, has carried out successful experiments in telephoning and is able to transmit speech for great distances without wires.... The inventor is Nathan B. Stubblefield.

He was born in Murray, Kentucky, in 1859, the son of William Jefferson and Victoria Bowman Stubblefield. In his teens he was an omnivorous student and researched everything available on the new science of electricity. He memorized long passages from Scientific American, studied the theories of James Clerk Maxwell and Heinrich Hertz, and became obsessed with the more bizarre experiments of Nikola Tesla, a Croatian-American inventor who was trying to send electrical impulses through Pikes Peak.

Stubblefield was a few months shy of twenty-three when he demonstrated to local residents that electricity could affect a compass needle, even though the generator and compass were yards apart. The experiment was a success, but it failed to impress his audience. By the time Alexander Bell told Tom Watson by phone, "Come here, Watson, I want you," Stubblefield was experimenting with vibrating communication devices.

In 1888 he invented a vibrating telephone, and the Murray News Weekly carried the following item: "Charlie Hamlin has his telephone in fine working order from his store to his home. It is the Nathan Stubblefield patent and is the best I have ever talked through." In 1898 he manufactured and patented an electrical storage ("earth") battery, which he later described as "the bedrock of all my scientific research in radio [his spelling]."

The world's first radio message was "Hello, Rainey, hello, Rainey," according to Dr. Rainey T. Wells, founder of Murray State College. Testifying before the Federal Communications Commission in 1947, he explained that he had personally heard Stubblefield demonstrate his wireless telephone as early as 1892:

"He had a shack about four feet square near his house from which he took an ordinary telephone
receiver but entirely without wires. Handing me this, he asked me to walk some distance away and listen. I had hardly reached my post, which happened to be an apple orchard, when I heard, "Hello, Rainey, hello, Rainey," come booming out of the receiver. I jumped a foot and said to myself, "This fellow is fooling me. He has wires somewhere." So I moved to the side some twenty feet, "This fellow is fooling me. He has wires somewhere." So I moved to the side some twenty feet, but all the while he kept talking to me. I talked back, and he answered me as plainly as you please. I urged him to patent the thing, but he refused, saying he wanted to continue his research and perfect it.

Dr. William Mason, Stubblefield's family physician, detailed for the local newspaper a day during the same year when Stubblefield "handed me a device in what appeared to be a keg with a handle on it. I started walking down the lane. ... From it I could distinctly hear his voice and a harmonica which he was broadcasting to me ... several years before Marconi made his announcement about wireless telegraphy."

With the new industrial and scientific epoch at hand and the first Roosevelt in the White House, Stubblefield continued to refine his broadcasting station, a tiny workshop on the front porch of his modest farmhouse. It was barely wide enough to hold the transmitter and one chair. The transmitting mechanism was concealed in a box.

On January 1, 1902, Stubblefield staged what appears to have been the world's first public broadcast at an exhibition before a thousand spectators in the courthouse square in Murray. He established five listening stations in various sections of the town, the farthest six blocks away from the transmitter. When his fourteen-year-old son Bernard talked, whispered, whistled, and played the harmonica, he was heard, according to the St. Louis Post-Dispatch, "with remarkable distinctness." The Dispatch correspondent drove to Stubblefield's farm a few days later and was received "with the usual hospitality of Kentucky. Previously Mr. Stubblefield had never permitted a correspondent to approach his house nearer than the road that runs before it, so jealously had he guarded the workshop in which his experiments were made." Stubblefield's son was left on the porch while Nathan and the newsman walked about five hundred yards to a dry-goods box fastened to the foot of a tree stump. The writer picked up the receiver and heard spasmodic buzzings and then: "Hello, can you hear me? Now I will count to ten. One, two, three, four ... ." Later Bernard whistled and played his mouth organ.

"Now," said Stubblefield, who carried several ball-tipped steel rods under his arm, "I wish you would lead the way. Go where you will, sink the rods into the ground, and listen for a telephone message."

"Away we went down a wagon track," wrote the correspondent. "Through a wide cornfield. A gate was opened into a lane that bordered the field and a dense oak wood. We pursued the lane for about five hundred yards and struck into the woods. I led the way. Into the heart of the woods we walked for nearly a mile. In a ravine I stopped. I took the four rods from Stubblefield. Each pair was joined by an ordinary insulated wire about thirty feet long, in the center of which was a small round telephone receiver. Two by two the rods were sunk in the ground, about half their lengths, the wires between them hanging loosely, and with plenty of play. I placed the receiver at each ear and waited. In a few moments came the signaling buzz." Stubblefield's son went through the same program the newsman had heard earlier.

Later Stubblefield told the Dispatch reporter, "I have been working on this for ten or twelve years. ... This solution is not the result of an inspiration or the work of a minute. It is the climax of years. The system can be developed until messages by voice can be sent and heard all over the country, even to Europe. The world is its limit. "For years I have been trying to make the bare earth do the work of wires. The earth, the air, the water, all the universe as we know it, is permeated with the remarkable fluid called electricity, the most wonderful of God's gifts to the world. ... The electrical fluid that permeates the earth carries the human voice, transmitted to it by any apparatus, with much more clarity and lucidity than it does over wires.

"Beneath the surface of the earth, as above it, 

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The Mysterious Box

What was Stubblefield's secret? By speaking into a device similar to a telephone transmitter, Stubblefield discovered that a current carrying his voice varied in accordance with the vibrations of the transmitter's diaphragm. He also found that, in order to transmit his voice without wires, he had to provide a radio frequency. Its source seems to have been his "earth" battery. And his "crazy box"? To vary the amplitude of the current, he required a "modulator," apparently in that box. His receiving apparatus, in principle, consisted of two basic parts of a modern unit: a device sensitive to the transmission and a detector whose function was to translate radio-frequency waves into the low-frequency vibrations of speech. By tapping the receiving coils at different intervals, he provided a means for adjusting the inductance. He didn't perfect fine tuning, and his detector cannot be found. But he seems to have grasped the fundamental principles of radio.
there is electricity. No one knows how deep it extends or how high it goes. I claim for my apparatus that it will work equally as well through air and water as it does through the earth. It can be used on moving trains, it will convey messages through the land and the sea. There is no position or station where it may not be used.

"How I have obtained the result is, of course, my secret. My apparatus has not yet been patented. It is not perfect by any means. I have not yet devised a method whereby it can be used with privacy. Wherever there is a receiving station, the signal and the message may be heard simultaneously. Eventually I, or someone, will discover a method of tuning the transmitting and receiving instruments so that each will answer only to its mate.

"In a short time, when my improved and more powerful apparatus is finished. I will make another test and expect to be able to telephone several miles. Then I will go to Washington and patent my invention."  

On January 12, 1902, the Post-Dispatch headlined a full-page story, "Kentucky Farmer Invents Wireless Telephone ... Messages Are Heard at a Mile." The article concluded, "Everyone at the receivers heard him with remarkable distinctness. At that moment Mr. Stubblefield became a prophet with honor in his own country."

Word spread quickly after the Post-Dispatch article. Stubblefield was soon besieged by capitalists, financiers, stock-jugglers, hucksters, and hawkers. Dr. Mason recalled seeing a $40,000 check for a part interest in the invention, and titans of industry, "wearing diamonds as large as your thumb," scuttling up dusty roads to Stubblefield's farm. "You and I will yet add luster to the Stubblefield name," wrote Nathan to his cousin Vernon.

Yet initially he refused all propositions, including one for half a million dollars. "It is worth twice that," he insisted, entrusting only his son Bernard with the secret of his mysterious keg. On occasion he repulsed overinquisitive visitors with a shotgun.

Invited by leading scientists, Stubblefield traveled to Washington, D.C., with a trunk containing all of his papers associated with the invention, to demonstrate the practicability of his contrivance from the steamship Bartholdi on the Potomac to crowds along the riverbank. On Decoration Day, 1902, he broadcast words and music from the Belmont Mansion and Fairmont Park in Philadelphia to hundreds of statesmen, investors, scientists, and newsmen. Articles appeared in major newspapers throughout the world acclaiming him as the distinguished inventor of the wireless telephone and a celebrated scientific genius. At least one extravagant reporter credited Stubblefield with "the world's greatest invention." But the inventor was destined not to enjoy the fruits of his ingenuity. The crucial blow was unquestionably the loss of his trunk, apparently en route from Philadelphia...
Among those who were present in Philadelphia’s Fairmont Park on May 30, 1902, to hear Stubblefield’s wireless telephone demonstration were Frederick Collins (identified by an anonymous hand, perhaps the inventor’s, with the number 2) and Henry Clay Fish (3). One close student of Stubblefield’s fortunes suggests that Collins stole the trunk containing details of the invention; Fish was treasurer of the Wireless Telephone Company of America, which tried to swindle the inventor. Stubblefield is at the far right (6).

to Murray. “Will I ever see my trunk again?” Stubblefield scribbled on the back of a map after he returned from Philadelphia. Vernon Stubblefield claimed the trunk was stolen. James L. Johnson, executive secretary of Murray’s Chamber of Commerce, asserts: “There’s no way to tell where that trunk went, but many of its papers later showed up as part of the Collins Wireless Corporation of Canada patents. Frederick Collins, who formed that corporation, was one of the scientists who attended the Fairmont Park demonstration.”

Johnson also points out that Stubblefield was inveigled into a partnership in a fraudulent firm, the Wireless Telephone Company of America, based in New York: “Needing money to pursue and perfect the invention, he traded all his interests, all his secrets, all his equipment for 500,000 shares of stock in the company. . . . On May 14, 1903, Stubblefield discovered that his 500,000 shares had been juggled so that the books read his shares were 50,000. He protested in a strong letter to the firm, and rather than let the information be revealed to the public the company called it a typographical error and issued him a certificate for the original amount. But the stock was worthless, in any case.”

Depressed and disillusioned, Stubblefield grew more and more eccentric. He was virulent about those who had fleeced him and advised friends to withdraw any investment they had in his project. Soon after this incident, he renounced his wife, nine children, and all other family and built a hermit’s hut in Almo, six miles from his family farmhouse. (Bernard later joined the Westinghouse Electrical Corporation, one of the pioneer commercial radio firms. Did he utilize his father’s secrets in the production of early crystal sets?)

In 1908, Stubblefield finally obtained patents on his inventions in the U.S., Canada, and England, but the world took no notice. In 1906, Fessenden had demonstrated transmission of voice and music (including his own violin solo) by the continuous-wave method from Brant Rock, Massachusetts, and it had been picked up as far away as the coast of Virginia. The field was dominated by other men, and Stubblefield seems to have taken no further initiatives. He lived alone for the next twenty years. His farmhouse, which had been lost to creditors, mysteriously burned to the ground. Wireless lights were reported in trees and along fences guarding Stubblefield’s crudely constructed shanty, and his neighbors said that voices, apparently coming from the air, were heard by trespassers. “Get your mule out of my cornfield,” Stubblefield’s voice could be heard shouting in the night. He curtly refused the aid of former friends. “He was never insane,” they insisted, “only peculiar.”

A friend found Stubblefield’s body in his hut on March 30, 1928, several days after his death, his brain partly eaten by rats. Death was caused by starvation, Dr. Mason concluded. He was buried in an unmarked grave in Bowman’s Cemetery, a mile and a half from Murray.

In 1930 a memorial to “the first man to transmit and receive the human voice without wires” was dedicated at Murray State Teachers College campus, less than five hundred feet from the remains of the world’s first “broadcasting station.” That same year Stubblefield’s family brought suit in New York’s Supreme Court for recognition and patent rights. The court ruled that they had proved every detail of their claims but that the statute of limitations had made those rights “void as to royalties.”

On May 18, 1961, the Kentucky Broadcasters Association granted Nathan Stubblefield official recognition as the inventor of radio. In 1962 his tragic life was dramatized in a folk opera, The Stubblefield Story, composed by Murray State professor Paul Shahan and Mrs. Lillian Lowry and performed in the campus auditorium. It was staged again as part of the 1976 Bicentennial.

Murray’s only radio station, a 1,000-watt outlet, programs “middle of the road and some rock as well,” according to program director Fransuelle Cole. Between Jesse Winchester’s “Seems like Only Yesterday” and a live spot for Kroger’s Grocery, one hears, “You are tuned to WNBS, 1340 on your radio dial in Murray, Kentucky, the birthplace of broadcasting.” The station’s call letters, not incidentally, include Stubblefield’s initials. 
Nathan Milstein
Brahmin with Violin

After some fifty years at the top of his profession, the violinist feels out of tune with the times—and doesn’t care.

by Estelle Kerner

Nathan Milstein, who will be seventy-three next New Year’s Eve, is the last surviving public performer among that handful of Jewish virtuosos, born in pre-Soviet Russia, who have dominated the violin in this century. Mischa Elman died in 1967 and David Oistrakh in 1974; Efrem Zimbalist, eighty-eight, lives quietly in Reno; Jascha Heifetz, at seventy-six, no longer performs. Of course there are the descendants of Russian Jews, from Yehudi Menuhin and Isaac Stern (who was actually born there) to Pinchas Zukerman and Itzhak Perlman, but none of the old guard survives except Milstein.

"Could this phenomenon be genetic—or ethnic?" I asked him at his New York apartment across from the Metropolitan Museum of Art earlier this year. He did not think so: "If it were a special Jewish gift, Jewish violinists would always have been better in quality. Historically they were not."

As for himself, he had not, as a child of five, begged for the violin. It would keep him out of mischief, advised Marya Roisman, a neighbor in Odessa whose son Josef would grow up to become first violinist in the Budapest String Quartet. "My mischief wasn’t so terrible," Milstein said, grinning. "I simply was very robust, very physical. The painful part of studying violin was when my mother, my sister wouldn’t let me go out and play. I was forced to practice; otherwise I would be punished. I liked the violin because it was so easy for me. But you can’t love music when you’re so young. When I started violin I never thought—my mother thought and told me what to do."

The boy realized later that his mother had more in mind than prevention of mischief. "Violin playing was a social condition in Russia. Under the tsar, Jews in intellectual towns like Odessa, Kiev—towns with a substantial Jewish population—couldn’t achieve anything in the professions. A Jewish family could buy a violin for two dollars; but even a bad piano at that time cost $300 or $400."

Milstein’s parents could have afforded a piano—his father was a wealthy importer of woolens and tweeds—but the craze for the violin had swept the Pale. Jewish virtuosos did not share the fate of their coreligionists during the era of the 5% academic quota, the Mendel Beilis case, the Black Hundreds, and the pogroms. There was Elman’s exemption from military service, by Nicholas II himself, Zimbalist’s command performance at Buckingham Palace, Gabriolowitsch’s parents’ buying two houses in St. Petersburg.

Though Milstein’s father professed no interest in formal religion—his sons were not Bar Mizvah—his mother was Orthodox. "She was practicing the rituals. I loved them. On Friday it was so beautiful. It was the most cozy thing. The only thing we complained about was that we each always got a little piece of chocolate and only part of an orange—not because we couldn’t afford it—but because we always had to divide."

For more than two years the boy studied with Peter Stoliarsky, an established teacher in Odessa and second violinist in the Odessa Opera Orchestra: "Stoliarsky never taught anything. When you played he said, 'Bad' or 'Good.'"

But at eleven, Milstein was invited by the great Leopold Auer to study violin with him at the Imperial Conservatory in St. Petersburg, and when he arrived the following year Auer sent him out on a performance.

"He said, 'You will not get anything, but it will be very good for you to play.' I got twenty-five rubles, a box of chocolates—and applause. I thought, this is the best profession. You show off, you are applauded, you get paid, and you get chocolate. Now, no chocolate, only applause. You do not get fat from applause."

"But three weeks after I played at the first class, we were afraid to return. We had no permits."

Jews needed permits to be in the major Russian cities. Milstein’s father, as a first-degree merchant, had a dispensation to remain in St. Petersburg or Moscow—a privilege extended to no one else in the family. Heifetz and Zimbalist had both had trouble with the authorities. Since Heifetz was only thirteen when he came to the Conservatory, his father, who had no permit, did not want to leave him alone in the city. But students admitted to the Conservatory received residency permits (for themselves alone). Auer’s solution was simply to admit Reuven Heifetz—aged forty and a good violinist—to his class of child prodigies. When the
1914: At age ten, three years before the Revolution, as a pupil of Stoliarsky's.

1923: In St. Petersburg with composer Alexander Glazunov, who, as director of the Imperial Conservatory when Milstein was a student there, had come to the rescue of the young violinist and his mother.

Some Milstein Milestones

1933: With Gregor Piatigorsky and Vladimir Horowitz, returning to New York on the Mauretania after a European concert tour by the trio. 1976: Forty-three years later, having just arrived in New York to give the opening concert at the reconstructed Avery Fisher Hall, Milstein greets his old friend Volodya Horowitz at the latter's seventy-second birthday party.

(more overleaf)
thirteen-year-old Zimbalist's mother was discovered without a permit, she and her son were driven from their lodging to walk the streets in below-zero temperatures. They arrived at Auer's door shivering, embarrassed, begging for help. It took all of Auer's influence to get Mrs. Zimbalist a one-week permit.

"When I told Auer why I had not come to play," Milstein continued, "he immediately called Alexander Glazunov, director of the Conservatory. He said, 'Look. I have the young Milstein with his mother. They have a problem. Could you help them?' Glazunov was a wonderful person. He said, 'Of course.' We went to Glazunov. He was a gentleman. He stood up and gave my mother a seat. Then he said, 'The problem will be immediately taken care of.' He called the Minister of Interior and said, 'Sasha, please do something for this young boy and his mother. Arrange that nobody disturbs them.' We went to another office. The superintendent, Vornick, stood up and saluted us—Jews!

"People exaggerate. Of course things were bad. Officially, sometimes the government encouraged awful things, like pogroms, but they made pogroms where the population accepted them. The Ukrainians and Polish—they were always ready. But the Great Russians? Never!"

Milstein reminisced about his master: "Every young boy who had the dream of playing better than the other boy wanted to go to Auer. He was a very gifted man and a good teacher. I used to go to the Conservatory every Wednesday and Friday at three o'clock for classes. I played every lesson with forty or fifty people sitting and listening. Two pianos were in the classroom, and a pianist accompanied us. When Auer was sick he would ask me to come to his home."

It was 1917.

In December, Auer fled to Norway, carrying the legal limit of five hundred rubles, bitterly lamenting the loss of his fortune, his pension, his library, and his priceless gifts. A few months later he was in New York, which with its four or five concerts a week was out of tune with the century—and does not care. Dapper, urbane, impeccable, he is a confessed aristocrat. The red button of the French Legion of Honor is set in the lapel of his elegant English tweed jacket. His violin, which he bought at the close of World War II, was originally called the Goldmann Strad, after the collector who once owned it. "The name sounded like I would be selling onions, so I called it Maria-Thérèse, after my wife and daughter."

As with any true aristocrat, Milstein's manner is all modesty. Yet the volatility of his playing is matched by that of his speech—and of his ideas. A painter himself and a collector of fine art, Milstein says: "You will never again have great masterpieces. There is nobody who will spend money for it. Very often, a tyrant, in today's sense, was a cultured personality. That's why you have masterpieces. A democratic form of government has to ask a Congress. Good tyrants produce quality. Peter the Great was good. He had St. Petersburg designed for him. He took experts to Holland and bought a collection of Rembrandt paintings. If he wouldn't do it, nobody would do it. You can't find
1975: Recording Bach's unaccompanied violin sonatas.

1944: Playing for World War II troops at Hollywood's Stage Door Canteen.

1955: After a recital at Siena's Accademia Chigiana, as Count Chigi applauds and Milstein's wife, Therese—whose name forms half the appellation of his Stradivarius—beams. 1957: With the other half of the appellation, his daughter, Maria, smoking Papa's cigarette, on Lake Geneva, Switzerland. The boy is conductor Wilhelm Furtwängler's son Andreas.

Great jewelry now, for example. Expensive, but not great. Nobody can afford to pay union fees for masterpieces. You would have to have somebody who would tax the masses. We have in our home in London two beautiful French carpets made in the workshop of Louis XV. They were not made to sell someplace. In the time of the Medicis there was a dinner for five hundred titled people. Everybody ate on a golden plate bearing his own coat of arms. Then the guests took the plates home. I don't have friends like that," he adds with a laugh. "Nobody gives me a golden plate.

"I think the more people that are involved in artistic things, the less good they are. Even in food the quality will diminish as more people ask for things. In France the best cuisine is in the small towns. There are more violinists now. Grants create many violinists, but grants disperse your attention and you don't have time to notice something extraordinarily good. There is a terrific number of geniuses. But now young people often start to concertize before they have all the equipment. There is no time for concentration, no time to think."
"I see the difference between now and the past: Music has become more educational than artistic. Young people must be able to sacrifice for the violin. I don't think it's important to sacrifice for education. You can live happily without education. But people who are very dedicated to the violin will never be happy unless they play."

Milstein doesn't think much of the conducting profession: "People say so-and-so is a great conductor. He cannot be great at twenty-five. Conductor as an artist, a great personality who can teach the orchestra—that is a conductor. But today nobody can. Since you only need yourself to be a great violinist, pianist, cellist, singer, you can experiment. You are completely in the music, you make music. Conductors do not make music. They make somebody else play. I made recordings, and when it came through it was because I said something, not the conductor. Very often I stop the conductor and tell the orchestra how to do it."

Milstein's recordings currently in the catalog, with the exception of the Bach sonatas and partitas for unaccompanied violin (and an imported Brahms Third Sonata with Horowitz), are devoted exclusively to works for violin and orchestra. (See below.) Only the Glazunov and Prokofiev concertos were composed in the twentieth century. Why doesn't he play more contemporary music? "People don't know how to write for the violin anymore. There was never in musical history such a universal lack of quality. The connection between Beethoven, Schubert, Schumann, Brahms, Wagner is continuous like a chain reaction. There was not even a pause; from Rimsky-Korsakov, the Russian school and Frenchschool, and their intermarriage and influence, you had Stravinsky, who started to write in the nineteenth century. Prokofiev wrote his best works when he was nineteen, before World War I. Stravinsky, Bartók, Berg. Finish! That was all written forty-five years ago. Now you have cement music, concrete music, electronic music. Atonal music is a destruction. Everybody is looking for something silly. If composers would continue writing traditionally, a gifted person would come with a good idea. They don’t look for the gifted; they look for the intellectual."

What does Milstein himself look for in music? "Quality. And virtuosity, which is also quality. The piano has virtuoso music—Chopin, for example. But the only composers in the nineteenth century who wrote brilliant violin music were superficial musicians: Sarasate, Wieniawski, Vieuxtemps, who tried to make a nice form out of it. The solo playing is not virtuoso—it lacks that quality—because it is superficial. Even chamber music should be virtuoso. You play Beethoven's Violin Concerto, you have to play virtuoso. Stravinsky wrote for violin, but he wrote nothing extraordinary. Prokofiev wrote two wonderful concertos and small pieces. "People go to hear sonatas. But how many sonatas are there? And not all sonatas are possible in a large hall. Beethoven's last sonata, the tenth, if you play it right, in Carnegie Hall or Lincoln Center, nobody will hear it. You can't be intimate there."

Milstein is considered one of the most passionate interpreters of Beethoven and Bach. His Deutsche Grammophon recording of the complete Bach Sonatas and Partitas for Solo Violin was one of High Fidelity's three best records of the year in 1976. "Bach was the greatest, without improvement. Paganini may have invented more exterior things: harmonics, pizzicato, showoff music. But Bach's was all authentic violin sound. If you ask me who made the greatest contributions to music I would say: Bach, Beethoven, Mozart, Haydn, Schubert, Schumann—like everybody would say. Everyone's gods are the same."

At seventy-two, except for a back that begins panning, he retains a youthful ebullience and vitality. He was to make his first overseas flight—from New York to Switzerland—shortly after I saw him. "I hope I like it. I will take two scotches before I board the plane." He laughed.

But he does not regret aging. Returning to the subject of the young, he said, "A gifted person cannot develop badly. Talent will always put him on the right track. He might not succeed commercially, but he will always be good—in a way, morally good too. The majority of young people now are more brilliant. They know more than we knew fifty years ago. But people exaggerate the importance of young people. People lose perspective. Whatever they do as young people, if they are gifted, they will do better when they get older. "The young are important only because eventually they will become old."
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A Bruckner Tradition Moves On

Karl Böhm and Kurt Masur demonstrate their unforced mastery in a pair of three-disc Bruckner sets from DG and Eurodisc.

by Abram Chipman

Now in his eighties, Karl Böhm has long been the elder statesman of a German conducting tradition established by Muck and Weingartner, the antithesis of the Romantic approach of Bülow, Mahler, Nikisch, and (ultimately) Furtwängler. The simultaneous release by Deutsche Grammophon and Eurodisc of a pair of Bruckner packages, overlapping in their contents, could almost symbolize a passing of that mantle to the fifty-year-old music director of the Leipzig Gewandhaus Orchestra, Kurt Masur, who with Carlos Kleiber and Klaus Tennstedt has been one of the most noteworthy conductors to emerge from Germany in recent years. (All three, interestingly, were long-experienced conductors by the time they "burst" onto the international scene.)

Neither Böhm (conducting the Vienna Philharmonic in the Seventh and Eighth Symphonies) nor Masur (conducting the Gewandhaus Orchestra in the Fourth and Seventh) is a flashy virtuoso, although the orchestral execution here is always solid, comfortable, and stylistically "right." This isn't explosive, grandiloquent Bruckner, surging in every bar with metaphysical significance. Not that either conductor is impatient or unduly metronomic with the music: Böhm's performances are broadly spanned, but with a gentle, clear-eyed directness; Masur's are flexible, but in a jaunty and dancelike rather than rhetorical way. Both seem to believe that music needs above all to unfold naturally—Bruckner's mammoth structures are in profoundly secure hands.

Masur's Romantic begins less than charismatically. Stark contrast, thrust, and glitter are scarcely to be found in the first movement, with its consistently legato articulation, steadiness, and backwardly balanced trumpets and trombones. In the following Andante quasi allegretto, Masur opts for an ideally quick tempo, much like the second versions of Klemperer (Angel S 36245) and Karajan (DG 2530 674) but with possibly even more seamless joints. In the big viola tune, the hairpin dynamics in the pizzicato accompaniment have rarely, in my recall, been so subtly terraced, an effect that adds to the poignancy of the episode.

The scherzo, taken somewhere between the ominous jog of Klemperer and the white heat of Haitink (Philips 835 385), is much the most successful among my favorite versions in obeying Bruckner's successive markings of langsamer, ruhiger, and stringendo. Masur's finale is equally revelatory, Bruckner's many gear shifts being followed with unerring accuracy, even to the differentiation of noch langsamer from im früher Zeitmass for the two widely spaced occurrences of the viola theme. One small textual point: Eurodisc attributes this performance to the 1936 Haas edition, but Masur, like
Klemperer, follows the 1944 reprint of Haas in giving the flute-and-clarinet tune of the trio to oboe and clarinet.

DG is more seriously incorrect in labeling its Eighth as an "original version." Bohm appears to use the Nowak text, which is based entirely on Bruckner's 1880 revision, a drastic change indeed from the 1877 original.

One might voice a few criticisms of what is heard too. Bohm's rhythmic coordination of the tricky passage at bars 250–60 in the first movement is flawed. The brass release at bar 369 is not quick enough (compare the terrifying void of silence that follows when it's done accurately, as in the recent Karajan version, DG 2707 085). Things here get a bit heavy from cues Mm to Oo in the finale, and the recording level (or the playing?) is far too loud for much of the scherzo's trio and at bars 60–60 in the Adagio (beautifully flowing though these pages otherwise are in Bohm's hands).

Yet these are ultimately minor points in the context of the deep affinity that conductor and orchestra together display for the work. They do not exaggerate its fatalistic mood (note the utter simplicity of phrasing for the mysterious opening bars) and convey, perhaps more naturally than anyone else on record, the sheerly magical eloquence of the horn, oboe, and trombones over string tremolos at bars 140–65 of the first movement. The scherzo is taken at a moderate pace, its demonic nature understated in favor of its healthy, outdoor ruggedness. It is just those qualities that Bohm stresses in the trio, with its openness of tone and plain-spoken phrasing.

As I have already said, the Adagio is given a very strong, forward reading, but without slighting in any way the music's tenderness or tragic nobility. The somber sound is rich and warm, even to a smidgen of portamento between bars 25 and 30. The finale brings excellent structural integration, the rhythmic control at the etwa breiter passage (cue W) more than compensating for any lack thereof noted earlier.

Predictably, the Bohm and Masur Sevenths turn out to be a close contest. There have been many recordings of high musical quality, but my favorites among current listings—Haitink (Philips #02759/60), Rosbaud (Turnabout TV-S 34083), and Horenstein (Unicorn UNI 111)—date back from a dozen to almost sixty years and in all cases sound their ages. The thoroughly contemporary Eurodisc and DG engineering preserves performances of heartfelt lyric warmth and humanity. In the first movement, Masur stresses sectional contrasts, particularly between his leisurely main tempo and the jocular, almost agitated one for the triplet theme first presented at bar 123. Bohm maintains a calm and unwavering dignity throughout the movement—with one exception, about which more below.

In the Adagio, it is Masur who misses the optimal differentiation between the slow basic tempo, which he rushes a little, and the more consolatory Moderato. Bohm sets the two alternating pulses off in clear relief, though I miss the incredibly spacious Adagio tempo of his 1944 Vienna concert performance. Issued briefly by Vox in the Fifties and available again in a five-disc Vox Bruckner compendium, VS 14. Despite thick sonics and a missing measure at the beginning of the scherzo (at least in the earlier issue; I haven't heard the current one), it's well worth hearing. That Adagio was a shattering experience, which even Furtwangler (to judge from the recorded evidence) did not duplicate.

Bohm's new scherzo is wonderful, especially for the ambling treatment of the trio, a reposeful pause in the surrounding virility. Masur is a shade blunted rhythmically, the impression undoubtedly in part a function of the limitations of the Leipzig brass vis-a-vis those in Vienna and Amsterdam. Both finales have their strong points. Masur sails into the coda with a particularly menacing momentum. Bohm, in keeping with his slightly more bucolic view, conjures lovely wind playing in the softer passages (cf. the almost Dvořákian flute writing around bar 140). Both make a Luftpause before the second theme (violins and violas over pizzicato basses at bar 35), but whereas Bohm tightens the pace afterward, Masur holds it back—either one a viable option.

Textual questions in the Seventh are both more simple and more complicated than is usual for Bruckner: simple because there are no extensive revisions from the original manuscript to plague scholars, complicated because the few instrumental changes superimposed by Schalk and Loewe and the tempo changes added by Nikisch may or may not be detectable in a given performance as a function of orchestral balances and conductor's whims, rather than printed editions. I'm not inclined to quarrel with Eurodisc's credit of Haas (which is based on the original manuscript), supported by the absence of cymbal and triangle at bar 177 in the Adagio. Bohm could be using Nowak, Haas, or a combination of both with his own judgment. I hear the Nowak triangle and cymbal, but no wind or brass doublings, and the strings switch from arco to pizzicato in the third, rather than fourth, bar before the end of the Adagio. The matter of tempo changes is tricky. Nikisch is responsible for the silly molto animato at bar 233 of the first movement, and Bohm observes it now as he did in 1944; Masur, happily, doesn't. As for all those spurious ritards in the finale, Bohm takes some and not others, and even Masur takes some. And so on.

Through his long and prolific recording career, Bohm has left us too few examples of his Bruckner interpretations. Let us hope these are not the last. In the case of Masur, his discography thus far has been quickly and generously filled with integral symphonic cycles. It should be more than an outside hope that the set at hand, produced by East Germany's Deutsche Schallplatten (which is also collaborating with EMI on the new Jochum Bruckner cycle with the Dresden State Orchestra), heralds a forthcoming Bruckner series.

**BRUCKNER:** Symphonies: No. 4, in E flat (Romantic), No. 7, in E (both ed. Haas). Leipzig Gewandhaus Orchestra, Kurt Masur, cond. [Reimar Bluth, prod.] EUROdisc 27 913 XGK, $26.94 (three SO-encoded discs, manual sequence; distributed by German News Co.).

**BRUCKNER:** Symphonies: No. 7, in E; No. 8, in C minor (ed. Nowak). Vienna Philharmonic Orchestra, Karl Bohm, cond. [Werner Mayer, prod.] DEUTSCHE GRAMMOPHON 2709 068, $23.94 (three discs, manual sequence). Tape 3371 027, $23.94.
Cimarosa's Comic Masterpiece

DG's recording of Il Matrimonio segreto under Daniel Barenboim is "a largely enjoyable performance that no lover of opera should miss."

by Paul Henry Lang

Deutsche Grammophon's release of Il Matrimonio segreto gives us nothing less than the peak achievement of Italian settecento comic opera. It is amazing that such an unquestionable and enjoyable masterpiece should be so little known. (The poor old Cetra and the much better Angel recordings have not been available for some years.) By the end of the first of this album's six sides anyone with a taste for style, elegance, and charm will be wholly captivated.

Domenico Cimarosa (1749-1801) was a product of the Loreto, the oldest of the famous Neapolitan conservatories; he was well trained, and besides playing the violin, harpsichord, and organ, he was praised as a good singer. His star rose rapidly, and in no time his popularity outshone that of his most celebrated older colleagues. Even Paisiello had to cede his hitherto unchallenged eminence to the young man whose operas were performed not only all over Italy, but in Dresden, Prague, Vienna, London, and St. Petersburg. When Cimarosa was thrown in jail for republican activities, the most influential royalists and cardinals went to his rescue; in Italy a successful opera composer can do no wrong.

Cimarosa composed Il Matrimonio segreto in November 1777.
Vienna, where he was engaged as Salieri's successor at the court (the position Mozart always sought unsuccessfully), and soon after Mozart's death the work was performed to instantaneous acclaim. The emperor, no mean musician, was so carried away that he ordered supper for all participants, and after a rest the entire piece was repeated the same night—surely a unique event in the annals of opera. Everyone (except the spleenistic Berlioz, who hated everything Italian) admired Matrimonio: Goethe, beguiled, produced it in Weimar; opera composers up to Verdi loved and feasted on it; even the usually reticent and severe Hanslick found it "full of sunshine."

The only sour note in this felicity was provided by Mahler, who at the centennial festivities organized in Vienna in 1901 refused to conduct the opera, even though the committee of sponsors consisted of the cream of Vienna's musical and literary intelligentsia. I suppose a man so tense and full of inner conflicts and pressures could not understand this quintessence of Latin grace, freshness, color, and exuberance of spirit.

The libretto, suggested by one of Hogarth's famous series of pictures, came from a play by the elder Colman and Garrick entitled The Clandestine Marriage, produced in London in 1766. After going through several hands, it landed in those of Giovanni Bertati, the author of the Don Giovanni set by Gazzaniga that immediately preceded Mozart's opera by the same title and that both Da Ponte and his composer studied closely. It deals with the always popular story of the old guardian or father whose sweet young charge refuses to marry her wealthy but elderly suitor. To this was added the necessary subplot permitting the permutation of amorous intrigues: in the end the couples are of course sorted out to general satisfaction.

Bertati, an experienced librettist well above the average prevailing in his day, made a spirited piece out of the old story, and Cimarosa set it with classically balanced economy. The composer establishes immediate rapport with his audience, because whatever he does is always graceful, witty, and creative, the charming melodies flow in abundance, and there is a delightful tinge of sly irony. Cimarosa knew the theater as few have known it; he was a superbly gifted lyricist, and his orchestra is full of verve. Only Mozart and Rossini composed such crackling and animated ensembles and finales.

Now we must touch upon the unavoidable comparison with Mozart; it is often made, and of course to the detriment of the Italian. But such comparisons are based on the wrong premise, for these two composers were no rivals—they created in different veins. Mozart, though saturated with Italian elements, was not an Italian composer like Hasse, the Italians knew the difference, and while he was admired he never became really popular in Italy. The Italian buffo composer did not take very seriously the reality of his characters or seek their inner truth as Mozart did—no Italian could create a dramatic figure like the Countess in Figaro—because they wanted to romp, entertain, and propagate cloudless merriment.

Thus the two composers' aims were quite different, and each achieved them according to his lights and temperament. Both used the prevailing classical idiom to perfection, and we cannot fault Cimarosa if he could not turn cliches from the public domain into revelations, for only Mozart could do that. But he used them with captivating elegance, volatile and cohesive at the same time. As Hanslick so well said: "Il Matrimonio segreto shows a fabulously light but masterfully schooled hand led by discriminating taste."

The new performance, though not without some flaws, is excellent. Daniel Barenboim, not infrequently guilty of romantic effusiveness, this time shows a most intelligent, understanding, and sophisticated approach as well as a firm command of his forces, both stylistically and technically. He presents us with an opera do camerà, intimate, delicate, and yet solid. There is an impressively just balance between stage and pit, the English Chamber Orchestra is superb, the tempos are flexible, and there are none of those phony allar-gandos at the end of sections or arias. Even the harpsichordist, who sticks to his duties without unnecessary flourishes, ends his cadences crisply, but he is somewhat muffled by the sound engineers. Though the latter commendably assist Barenboim in his endeavor to maintain an intimate atmosphere, the closely placed microphones, appropriate most of the time, cause sudden high notes to erupt shrilly; the marvelous finales are also a little noisy when the sonic barometer rises.

All three of the women—sopranos Julia Varady and Arleen Auger and mezzo Julia Hamari—sing well, with warmth and vivaciousness, though with less than ideal enunciation, and in the fast patter of the parlando their attempt to be too pointed results in breathless flutter. The outstanding members of the cast are tenor Ryland Davies, a sensitive bel canto artist, and especially Alberto Rinaldi, who uses his attractive bass voice impec-cably, with a fine sense for articulation and pace, and engagingly communicates his own relish for the part. Both he and Davies enunciate with remarkable clarity.

Regrettably, the one unsatisfactory member of the cast is the most famous of them, Dietrich Fischer-Dieskau. His voice is not suited for his part, nor does it show to advantage even in the more sustained passages. Fischer-Dieskau does not really understand Italian buffo singing (few, if any, German Lieder singers do), overdoes the part by attempting to be very funny as he jumps from barely audible mumbled asides to sudden outbursts, and cannot master the parlando; huffing and puffing, he spits out the notes as though they tasted bad.

Nevertheless, we still have an absolutely delectable work in a largely enjoyable performance that no lover of opera should miss.

CIMAROSA: Il Matrimonio segreto.

Richard Ammer, harpsichord, English Chamber Orchestra, Daniel Barenboim, cond. [Hans Weber and Gunther Breest, prod.] DEUTSCHE GRAMMOPHON 2709 069, $23.94 (three discs, manual sequence).
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Clearly a new standard is needed for evaluating overall receiver performance under real life conditions. Yamaha's new standard is called Noise-Distortion Clearance Range (NDCR). No other manufacturer specifies anything like it, because no other manufacturer can measure up to it.

We connect our test equipment to the phono input and speaker output terminals, so we can measure the performance of the entire receiver. We set the volume control at -20dB, a level you're more likely to listen to than full volume. We measure noise and distortion together, the way you hear them.

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**Component-by-Component Excellence.** By all conventional laboratory standards, as well as Yamaha's more stringent standards, the CR-2020 offers a new level of receiver performance.

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**Built-In Moving Coil Head Amp.** Today, more and more people are discovering the superior performance of the moving coil phono cartridge. While
other receivers require an expensive preamplifier or step-up transformer, which can compromise sound quality, the CR-2020 already provides for it—the same solid-state device first developed for our superlative C-2 preamplifier.

**Input/Rec Output/Pre Out Selectors.** Here’s extra convenience for tape recording enthusiasts. Record any source while listening to another. For example, copy a tape or disc at the same time you’re enjoying an FM program. When you’re in the mood to play recording engineer, you can use all the tone controls and filters to compensate for poor quality sound sources.

**Fast Rise, Slow Decay Power Meters.** The CR-2020’s large, accurately calibrated power meters, with fast rise, slow decay characteristics, make accurate readings possible from 1/10th watt to 200 watt peaks without switching ranges.

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**Optimum Tuning System.** Yamaha takes the problem of inaccurate tuning out of human hands. After you manually locate the desired station, OTS automatically fine tunes it to the single point that gives maximum stereo separation and minimum distortion. A defeat switch is provided for special applications.

**Built-In Equalizer.** Think of the CR-2020’s tone control circuitry as a small multi-band equalizer. Feedback bass and treble controls have selectable turnover frequencies. A midrange presence control adds more flexibility. Two-position low and high filters have 12dB/octave slopes. For the purist, a defeat switch removes the effect of the tone control circuitry entirely.

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Behind the Scenes

Garden production, but in the interim the scheduled Ramek, Ingvart Wixell, withdrew. DG and Covent Garden went their separate ways in replacing him, with Silvano Carroli reportedly scoring a great success in the live performances. The other principals—Carol Neblett in the title role, Placido Domingo as the outlaw Ramerrez—created their stage roles: Zubin Mehta, in his DG debut, conducted.

As noted in February, Milnes was also scheduled to record Don Giovanni, in Karl Böhm's new version to be made at the past summer's Salzburg Festival. The rest of the cast was shaping up as follows: Walter Berry (Leporello), Teresa Zylis-Gara (Elvira), Anna Tomowa-Sintow (Anna), Peter Schreier (Ottavio), John Macurdy (Commendatore), Edith Mathis (Zerlina), and Dale Duesing (Masetto).

Obraztsova in the studio. No doubt about it: Since Elena Obraztsova burst onto the American operatic scene during the Bolshoi Opera's 1975 U.S. visit, the dramatic mezzo (a rarity indeed these days) has won the hearts of American operaphiles.

The record companies, it seems, are beginning to get the message, and she is scheduled to record three (non-Russian) roles. After taping an operatic recital disc for EMI (begun in the time originally allotted for completion of Nabucco—see above), and Adriano Lecouvreur for CBS in London, she was due in Berlin in late September to sing Azucena in Verdi's Il Trovatore, a recording that grows out of Herbert von Karajan's triumphant Salzburg and Vienna productions last spring. Scheduled to re-create their Vienna roles were Leonynye Price (her third Leonora) and Piero Cappuccilli (Di Luna). Obraztsova replaces Christa Ludwig, the Vienna Azucena, while Franco Bonisolli replaces Luciano Pavarotti, who of course is the Manrico of the new Decca/London Trovatore. The Ferrando is Ruggero Raimondi, the orchestra the Berlin Philharmonic.

Next year for Deutsche Grammophon she is to be Saint-Saëns's Dalila (in which role she caused quite a stir last spring at the Met), with Placido Domingo as Samson and Daniel Barenboim conducting.

On home ground, this winter Obraztsova will be singing Santuzza in Mascagni's Cavalleria rusticana (in Italian) in Moscow, both in concert and at the Bolshoi. Undoubtedly it has occurred to someone that that would be a suitable recording vehicle for her!

Ashkenazy at the keyboard. Last month we reported on new developments in Vladimir Ashkenazy's conducting activities, but it should not be thought that he is about to abandon the piano. In addition to continuing his long-running Decca/London series of Beethoven sonatas and Chopin piano works, Ashkenazy has recorded a second disc of Scriabin sonatas (Nos. 2, 7, and 10) en route to yet another integrale. He has also taped the Schuman concerto with Uri Segal and the London Symphony, as well as two more discs with soprano Elisabeth Soderstrom: Vol. 3 in their series of Rachmaninoff songs and a Mussorgsky collection. Decca/London, we are told, is now looking for suitable repertory to continue the collaboration.

Lorengar and De Larrocha. Decca/London has paired two artists on its roster to form another happy duo. The illustrious Spaniards Pilar Lorengar and Alicia de Larrocha have recorded a disc of songs by their countryman Enrique Granados. De Larrocha, meanwhile, has recorded yet another sequel to her highly successful "Mostly Mozart" collections, featuring solo works by Mozart and Bach.

Lombard branches out. Alain Lombard's ambitious recording program in Strasbourg is going international in more ways than one. His Faust for Erato (released domestically by RCA, to be reviewed next month) broke ground in the matter of casting, bringing in such distinguished non-French singers as Montserrat Caballe, Giacomo Aragall, and Paul Plishka. Now Lombard will be moving outside the French operatic repertory, and at least one of his projects is for a non-French company.

EMU plans to record Puccini's Turandot in Strasbourg with Caballe (Decca/London's Liu last time around) in the title role. Mirella Freni as Liu, Jose Carreras as Calaf, and Plushka as Timur. On the Erato schedule is Mozart's Cosi fan tutte, with Kiri Te Kanawa (Fiordiligi), Frederick von Stade (Don Alfonso), Teresa Stratas (Despina), David Rendall (Ferrando), José van Dam (Guglielmo), and Jules Bastin (Don Basilio).

Sheriff Milnes. Milnes fans will get to hear their man in roles unexpected and expected. The unexpected is Sheriff Jack Rance in Puccini's Fragulile del West. We told you in June that Deutsche Grammophon would be making a record based on the Covent Garden production, but in the interim the scheduled Ramek, Ingvart Wixell, withdrew. DG and Covent Garden went their separate ways in replacing him, with Silvano Carroli reportedly scoring a great success in the live performances. The other principals—Carol Neblett in the title role, Placido Domingo as the outlaw Ramerrez—created their stage roles: Zubin Mehta, in his DG debut, conducted.

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tal works. But too many of them, like the flute sonatas, tend to reinforce the impression that this London (or English—or, more properly, Italian) Bach was basically a rather lightweight, however pleasant, composer.

So it's salutary to be reminded that the composer young Mozart admired so wholeheartedly did indeed create more substantial works, such as the best of his sixty sinfonias (or, on occasion and interchangeably, overtures). Three of the six in Op. 18, the odd-numbered ones, are particularly interesting in that they anticipate the coming of stereo in calling for the double orchestras. Zinnman's is, to my knowledge, the first integral Op. 18 in SCHWANN. Munchinger has recorded the set in two separate installments (1974 and 1976), and only the second disc, with the three even-numbered sinfonias for a single orchestra, has appeared so far in this country. The Zinnman album has the further advantage of including one of the relatively better-known sinfonias from Op. 9, plus an engaging if less substantial two-movement sinfonia concerante for oboe and cello. Munchinger fills out the second half of his disc with a rather standard version of Teleman's Don Quichotte ballet suite, which offers little competition to the superb Mariner/Argo recording (ZRG 836, October 1976).

The conductors' approaches differ even more markedly. Munchinger is genial and relaxed in contrast to Zinnman's nervously tense vivacity, but even London's warmest recording of the richly expressive Stuttgart ensemble's playing can't compensate for the lack of any real personality in the readings. If Zinnman sometimes rushes the livelier passages overenthusiastically, he has far more individuality, is more tenderly moving in the extraordinarily eloquent slow movements, and is given more exciting, vividly live recorded sonorities. And there is notably poignant oboe-playing by Thomas Indermühle throughout the sinfonias as well as in his co-soloist role in the sinfonia concerante. R.D.J.


The young Bartók seems to have had a pessimistic attitude toward relations with the opposite sex, to judge by the three theater pieces that are the main works of his thirties. Bluebeard's Castle maintains that it is woman's nature to kill man's love for her by probing too deeply into its motivations. The Wooden Prince that only suffers from the desire to love him for himself, rather than for his physical and social attributes: The Miraculous Mandarin (of which I read it right) that mutual love carries its own death warrant for the man. Was this choice of themes merely part of a late-Romantic Central European fashion, or did it spring from some deep need in Bartok himself? Perhaps it hardly matters, since we do not have to subscribe to the message of any of the three works in order to admire the rich (and startlingly different) music that they drew from him.

Boulez has now completed his impressive account of the trilogy with this recording of the complete score of The Wooden Prince. One can see why this ballet was left till last, since it is by all odds the least effective in theatrical terms and the most hampered by its plot. Where Bluebeard does seem to say something, primarily about human relationships and Mandarin, though its scenario has ceased to shock today's jaded audiences, still triumphs through the uncompromising vitality of its score. The Wooden Prince falls between a good many stools. Its synthetic fairytale scenario (by Balazs, the librettist of Bluebeard) is in essence as sentimental as any third-rate Victorian novel or mass-market movie, and its music (still more to the point) seems never to know quite which world it belongs to. Together with the Hungarian melodies that gives such unity to Bluebeard's Castle, extensions of Strauss and Debussy rub shoulders awkwardly with patches of the new allegro barbaro idiom that Bartok was to use so much more consistently in the Mándarin score.

Yet it is a big, abundant work that anyone who loves Bartok's music will want to have on his shelves, inconsistencies and all. And if that is so, he will probably want the whole score. As Boulez has recorded it, rather than the abbreviated version (misleadingly called a suite) that Bartok prepared in order to rescue at least some of the music for concert performance. This omits a few fairly brief passages from the early part of the score, the preparatory area leading up to the Princess' dance with the wooden doll that the Prince has misguidedly used to decoy her, and a chunk out of that dance itself. The most damaging loss of all is the whole of the action between the Prince's despair at being abandoned for a puppet and his ultimate union with the Princess: this includes the climactic passage in which the mysterious Fairy who controls the entire action persuades all nature to bring him its gifts.

For this reason there can be no direct comparison between the new Boulez and the Skrowaczewski recordings. If you are enough of a Bartókian to want the whole score, the Boulez is the only version of it currently available apart from an old Bartók Society disc, and although memory tells me that at that performance moved with a little more spontaneity in some of the narrative passages, there can be no doubt that Columbia has been able to do greater justice to the enormously lavish and elaborate orchestration, with its multiple division of...
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I don't know whether Johann Christian Bach, Johann Sebastian's thirteenth son (and eighteenth of twenty children), was a triskaideca-phobe or phile, but he certainly was startlingly different from not only his parents, but his ancestors and siblings: the first of a strictly Lutheran family to become a Roman Catholic, the first of an ancient German line to become—at least temperamentally and artistically—an Italian. A spoiled favorite of his father, he wasn't quite fifteen when the latter died and the responsibility for his musical training passed to Carl Philipp Emanuel in Berlin. But within a few years, before he was twenty, he was magnetically drawn south to Italy, where he found himself far more "at home" not only in Catholicism, but with distinctively Italian rococo musical styles and ideals. And it was these affinities he steadfastly retained when he finally settled in England some eight years later to become music master to Queen Charlotte, composer/accompanist for George III's flute-playing, and one of the first to recognize the genius of the child Mozart.

Nowadays, even though his hit operas have been long forgotten, J. C. Bach is not badly represented on records by instrumenten-
So it's a pity to be reminded that the composer young Mozart admired so wholeheartedly did not write quite as much substantial work, such as the best of his some sixty sinfonias (or, on occasion and interchangeably, overtures). Three of the six in Op. 16, the odd-numbered ones, are particularly interesting today in that they anticipate and wriggly in calling for double orchestra. Zinnman's is to the knowledge, the first integral Op. 18 in SCHWANN: Munchinger has recorded the set in two separate installments (1974 and 1976), and only the second disc, with the three even-numbered sinfonias for a single orchestra, has appeared so far in this country. The Zinnman album has the further advantage of including one of the relatively better-known sinfonias from Op. 9, plus an engaging if less substantial two-movement sinfonia concertante for oboe and cello. Munchinger fills out the second side of his disc with a rather stand version of Tellemann's Da Quichotte ballet suite, which offers little competition to the superb Mariner/Argo recording (ZIG 836, October 1976).

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R.D.D.


BARTOK: The Wooden Prince, Op. 13. Suite, The Miraculous Mandarin. Op. 19. Suite, The Miraculous Mandarin (4). The young Bartok seems to have had a pessimistic attitude toward relations with the opposite sex, to judge by the three theater pieces that are the main works with his thirties. Bartok's Castle maintains that it is woman's nature to kill man's love for her by probing too deeply into its motivations. The Wooden Prince that only suffers can teach her to love him for himself, rather than for his physical and social attributes. The Miraculous Mandarin (4) read it right) that mutual love carries its own death warrant for the man. Was this choice of themes merely part of a late-Romantic Central European fashion, or did it spring from some deep need in Bartok himself? Perhaps it hardly matters, since we do not have to subscribe to the message of any of the three works in order to admire the rich (and startlingly different) music that they drew from him.

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**The best classical records reviewed in recent months**


**BEETHOVEN:** Piano Sonatas Nos. 1, 7. Richter. ANGEL S 37266, Oct.

**BEETHOVEN:** Symphonies Nos. 2, 4. FURCZIK. HUNGAROTON SLPX 11891, 11894, Oct.

**BERLIOZ:** Symphonie Fantastique. MUCHA. HUNGAROTON SLPX 11842, Oct.

**BRAHMS:** Ein deutsches Requiem et al. KARAJAN. ANGEL S 3836 (2), Sept.

**BRAHMS:** Orchestral Works. Abravanel. VANGUARD CARDINAL VCS 10117/20, (4), Oct.

**CHOPIN:** Piano Works. Zimerman. DG 2530 826, Oct.


**DUSSEK:** Piano Sonatas, Vols. 1-2. MARVIN. GENESIS GS 1068, 1069, Sept.

**GERSHWIN:** Porgy and Bess. Dale, Albert, Smith, Deman. RCA ARL 3-2109 (3), Sept.


**HAYDN:** Piano Works, Vol. 4. RANKI. HUNGAROTON SLPX 11825/7 (3), Oct.


**HINDEMITH:** Organ Sonatas (3). BAKER. DELYS US 026, Sept.

**IVES:** Concord Sonata. Kalish. NONESUCH H 71337, Sept.

**KHACHATURIAN:** Gayane Suites. Tjeknavorian. RCA RED SEAL CRL 2-2262 (2), Oct.

**SCHUBERT:** Symphony No. 8. HAYDN: Symphony No. 104. Karajan. ANGEL S 37058, Oct.

**STRAUSS, R.:** Burleske; Violin Concerto. Frager, Hoelscher, Kempe. ANGEL S 37267, Oct.

**TCHAIKOVSKY:** Symphony No. 4. Abbado. DG 2530 651, Oct.

**BAROQUE CONCERTO IN ENGLAND:** Black, Bennett, Dobs. CRD 1031, Sept.

**HEINZ HOLLIGER, AURELE NICOLET:** Works with Oboe, Flute. PHILIPS 9500 070, Oct.

**PETER HURFORD:** Chorale Variations for Organ. ARGO ZRG 835, Oct.

**WILHELM KEMPFF:** Bach, Handel, and Gluck Arrangements. DG 2530 647, Sept.
strings and its rich panoply of winds (including two saxophones) and percussion. Comparing this with the sound Cantilene has provided for the Minnesota group is instructive, though, and by no means entirely in Columbia's favor. Though there are minor discrepancies of balance between the two versions, the Cantilene recording, made in Minneapolis' highly praised Orchestra Hall, gives a slightly rounder sound, particularly to the strings, with no loss of detail.

As for the interpretations, there too it is a matter of swings and roundabouts. Boulez is the more nuanced, with a more conscientious attempt to follow Bartók's very precisely indicated rubato; Yet sometimes the relatively unsuitable Skrowaczewski can sound more natural in his choice of tempo, and certainly he gets more unanimous playing from his orchestra in the strongly rhythmic allegro sections than Boulez does from his—and this applies to his account of the Mandarin suite as well as to that from The Wooden Prince. In general Boulez does greater justice to the music's sensitivity. Skrowaczewski to its animal vigor. So the choice depends almost entirely on whether you feel you can afford two full-priced records for the complete scores (plus the Dance Suite on Boulez Mandarin disc, M 31368), or whether about two-thirds of each combined on a single budget-priced disc will meet your needs.


The London-based Gabrieli Quartet—violinists Kenneth Sillito and Brendan O'Reilly, violist Ian Leven, and cellist Keith Harvey—play with no lack of drama; indeed, the group's special attention to such characteristically Beethovenesque dynamic distinctions as that between forte and fortissimo adds immeasurably to the vivid vitality of both performances on this resonantly realized disc. I also admire the precise ensemble, the crisp articulation of passagework, and the unusual prominence of the viola and cello as microphone'd. Interpretively, both performances are bright-eyed and unassuming, urging the music onward but rarely slighting the rapt poignancy of such introspective movements as the celebrated Adagio affetuoso of the F major Quartet (taken somewhat quickly but without any feeling of either rushing or casualness).

On repeated hearings I did begin to feel that some of the playing, for all its clean lines and good musicianship, is a bit hurried and shapeless, particularly when measured alongside such structurally perceptive interpretations as the Végh Quartet's in the outstanding and much more expensive Telefunken set (36.35042). The running finale of Op. 18, No. 1, and the first, third, and fourth movements of Op. 18, No. 2, are cases in point. But I don't want to exaggerate. It is high praise to say that the Gabrieli is fully competitive with the excellent budget Op. 18 sets by the Budapest (Odyssey 32 36 0023) and Hungarian (Seraphim SIG 1085). Indeed, it provides worthy credentials regardless of price, and the prospect of a Gabrieli Beethoven cycle is a pleasant one.


Brendel's new Op. 31, No. 3, is fine, but in my opinion less so than his earlier version for Vox (in SVBX 5418). I once characterized that reading as his best Beethoven sonata recording, and it still seems so, now along with the fine Philips remakes of the Waldstein, Op. 110, and Andante favori (all on 6500 762, August 1976). The new performance, while still lively and characterful, is a bit more disjointed rhythmically, and the distant microphone placement, though it results in more vibrant and colorful sound than the close-to Vox's, robs the performance of forceful bass. Only in the last movement, now an appropriately fiery presto, is this account preferable.

The new Pathétique is less stolid than the old one (in SVBX 5428) but also less steady rhythmically. The Grave introduction seems particularly lumbering and ambiguous, but in this instance the added color and vibrancy of the Philips sound is a vast improvement over the thinny, boxy Vox. Brendel's way with Op. 49, No. 1, remains essentially as it was before. No other pianist has managed as Schnabel did to go beyond the decorative surface of this juvenile and yet potentially affecting little essay. The Philips sound does add refinement to Brendel's rippling outlook. The pianist's own notes are characteristically informative and thoughtful.

**BEETHOVEN: Songs, Vol. 1. Peter Schreier.**

Many of the Romantic composers created in the shadow cast by "late" Beethoven, and there are few performances that make the connection as apparent as it is here. The Alla marcia of Op. 101 is, of course, the precursor of such Schumann inspirations as the F major Novelette and the second of the viola piano Mühlenbilder in the same key. Ashkenazy's performance stresses the kinship. His tempo is on the leisurely side, and his rhythm is full of an exaggerated spring and snap with stressful (some may think overstressed) inflections at the endings of large phrases. A similar kind of bright incision pervades the lugubrious of the finale.

The first movement of Op. 101 and most of Op. 109, on the other hand, foreshadow Chopin, and Ashkenazy's playing, while thoroughly scrupulous about following Beethoven's detailed requests, does have a definite Chopin cast to it. The rhythm is slightly languorous and rounded off, the sound clear and contrapuntal enough but still a bit blandly pianistic (a hard thing to describe, but compare Kneifl's more plangent—and, I think, more idiomatic—sonority in the same works). On the whole, these are large-scaled, effective, and valid readings that add interesting commentary to the subject of interpreting both pieces.

The Kingsway Hall acoustics are a trifle overblown but not injurious to the polyphony of either composition.

tenor, Walter Obertz and Gisela Franke*, pianist. TELEFUNKEN 6.41997, $7.98.

For VEB Deutsche Schallplatten in East Germany, Peter Schreier has recorded three discs of Beethoven songs, and this is the first American release from that series, which is comparable in extent (though not precisely equivalent in content) to Fischer-Dieskau's set, first issued as DG 139 218/8 and also as part of the Beethoven bicentenary series Of the latter, however, only the first disc remains available (DG 139 197), while from the baritone's still earlier two-disc mono Beethoven project for Electrola only a single disc (the original E 90005 plus a few songs from E 90006) is now listed as an import (IC 053 01138).

Beethoven's songs are a less than consistently sublime aspect of his output, mixing a few unquestioned masterpieces with a modicum of conventional settings and some early trivia. (The opus numbers are often misleading: e.g., both Opp. 52 and 75 contain songs dating back to 1783.) Thus an extensive recorded survey is probably more than most listeners will want—while those with a comprehensive bent would probably like to have everything there's at least another record's worth not included in either the Schreier or Dieskau series.) What we presently lack is a good single-disc selection of the best Beethoven songs. Say, *An die ferne Geliebte*, the eloquent, archaicizing Gelieret settings, the best of the Goethe songs, and a few others. Naturally, these plums have been well distributed over Schreier's three discs, and the two available Dieskau singles (which duplicate only four songs between them) still omit some fine things.

Be that as it may, Schreier does well with this material. Now and then the voice verges on a Karl Erb-ish dryness that one has not previously noted in his singing, but it is manipulated with more elegance and dynamic consistency than Dieskau managed—a particular benefit to the many lightweight songs, which labor under the baritone's excessive heartiness (cf. the potentially tedious *Unsere Reise um die Welt*, where Schreier also spares us five out of the fourteen verses, traversing the remainder with a more delicate humor).

This is not to suggest that Schreier is weak on the serious songs. I find his restrained treatment of 'Wonne der Wehmuth' more appropriate to the poet's resignation than Dieskau's portentous, tragic approach and he handles the melismatic return to the opening material more smoothly and expressively. The musicianly playing of Walter Obertz, though less plangently registered than DG's long Demus, is always to the point, especially his well-timed agogic accents in 'Neue Liebe, neue Liebe.'

On the debit side, one must mention a tendency for the microphone to exaggerate Schreier's sibilants, and Telefunken's inadequate presentation: only German texts (run on, rather than line by line), no translations, and no dates for the songs (important for the reason given above). A record issued for general sale in the American market at full price should do better than this.

—D.H.

**BEETHOVEN (arr.): Songs of Various Nationality, WoO. 157. Accademia Monteverdiana, Denis Stevens, dir. NONE SUCH H 71340, $3.96.**

**BEETHOVEN (arr.): Folksong Settings. Accademia Monteverdiana, Denis Stevens, dir. VANGUARD EVERYMAN SPV 356, $3.98**


The folk-song settings that the Scottish dilettant George Thomson commissioned from Beethoven may not be ethnomusicologically sound, but the instrumental preludes, accompaniments, and postludes are covered with the master's fingerprints: inventive textures (for piano, violin, and cello), striking harmonie turns, ingenious melodic developments.

Some of the tunes are familiar indeed—"God save the King," "Auld lang syne." "The Minstrel Boy" (to new words as "The Soldier")—but the interest is primarily in their surroundings, especially as these professional, brightly and sensitively articulated performances give equal weight to voices and instruments. The singing is not as assertive, as self-conscious as in some earlier, now unavailable recordings (notably those involving Fischer-Dieskau). and this is all to the good. Since Beethoven apparently composed many of these settings without knowing what the words would be (in many cases they were still being written, by poets also under Thomson's commission) he didn't go in for much finely detailed word-painting.


These are, objectively considered, fine performances—cleanly played, judiciously paced, idiomatic as to sonority and phrasing, and devoid of eccentricity. But the one ingredient conspicuously missing is, at least for this reviewer, an important one: Davis' account of the symphony never conveys the lightness of touch (which can fully coexist with solid weight) and the soaring lyricism that provide needed foil for the fierce drama. Indeed, for all the strength and integrity, the playing hardly gives the impression of being on the verge of bursting into flame. The deficiency of humor and intensity is missed less in Leonore No. 3, but other accounts (Solti's, to cite one of the more recent) have conveyed a stronger sense of the theater, more lashed call and in the introduction, more blazing excitement in the finale.

Phillips gives us a compact, classically apt, beautifully balanced sound with plenty of rugged bass, and Davis observes the repeat in the symphony's first movement.

—H.G.


Although Schelomo is generally taken as an invitation to interpretative license, an impression from several conversations with the composer is that he held a different view. My feeling that he imagined a rhapsodic (but controlled) solo cello juxtaposed against a somewhat less intense orchestra is borne out. I think, by the score itself. Expressive markings for the soloist are much more numerous and precise than those for the orchestra.

Both Rostropovich and Bern stein are known for placing a highly individual stamp on everything they perform. And in the cello's case, at least, I was interested to note how scrupulously Bloch's directions are followed, not so much literally as with expressive intensification that falls just short of exaggeration. Moreover, he holds these details together in an extremely impressive total conception of the piece. Bern-
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stein's orchestral conception, however, in a sense turns it inside out, as he tries to outdo Rostropovich's already intense reading. The result, to my ears at least, is a garish orchestral performance that completely throws the piece out of focus. There is even a time, in the piu vivace section between Nos. 31 and 33, when Bernstein whips the orchestra into something like a 1930s Hollywood version of 'Oriental' music.

Much as one may be swayed by Rostropovich's tempi for this performance, I feel there is another way to proceed. One could play it in a more thoughtful way, with less emphasis on the orchestration and more on the solo part. In fairness, Ohlsson frequently reconsiders and conducts himself to an extent that only the most ardent fans could tolerate.


Ohlsson's most recent recordings have given evidence of rapid and considerable growth, both pianistic and interpretive. While these demanding compositions like-wise document his development—especially in the realms of greater tonal subtlety and rhythmic suppleness—I am afraid that, when measured against the best previous recordings (Fleischer, Solomon, and Petri in Op. 24; Arrau and Backhaus in Op. 35), these sturdy, craftsmanlike interpretations leave much to be desired.

There is less to fault in Ohlsson's treatment of Op. 35. These variations on Paganini's famous Twenty-Fourth Caprice were originally conceived as technical exercises (they go considerably beyond that of course), and Ohlsson's technique permits him to use very little sustaining pedal, with resultant gains in clarity and articulation. He is particularly impressive in clarifying the typical Brahmsian themes against fues, and his octave glissandos have impact and focus. Yet he has much more scope and interest Arrau (Philips 9500 066) brings to the same patterns without losing one iota of virtuosity. In these finger-twisting miniatures, Arrau's rhetorical theatricality works like a charm, and his sonority also has more weight and diversification. Backhaus' 78-rpm account was more like Ohlsson's in its straightforward approach to the notes, but again there was a degree of tonal noise and sheer effortlessness apparently beyond Ohlsson's present reach.

The Handel Variations may pose less of a problem for an over-all performance. James Starker's reading of the first movement of the Schumann concerto, both cellist and conductor indulge themselves to an extent that only the most ardent fans could tolerate.

Bruch: Concerto for Violin and Orchestra, No. 2, in D minor, Op. 44; Scottish Fantasy, Op. 46. Itzhak Perlman, violin. New Philharmonia Orchestra, Jesus Lopez-Cobos, cond. (Suvi Raj Grubb, prod.) ANGEL S 37210, $7.98 (SQ-encoded disc)

Bruch's still infrequently played Second Violin Concerto has amassed all of three recordings (though the Third has yet to receive its first!), but these are extremely uneven, but it doesn't necessarily follow that the most obscure works are the least worthy. After Heifetz revived the virtuoso unperformed Scottish Fantasy in the late 1940s, it rightly came to rival the First Concerto in popularity. The recently unearthed two-piano concerto (Angel S 36997, September 1974) similarly turned out to be a work of substantial value and eloquence.

My enthusiasm for the D minor Violin Concerto, however, can be expressed as "modified frustration." The work begins promisingly enough with a dark, brooding introduction that carries the mood of the G minor Concerto to even greater emotional range. As has the promise been kept, and before long the first movement runs afoot on an idea that seems a virtual cribbing of the main theme of the C major Concerto. And whereas the G minor's finale provides a sustained dramatic capstone, that to the D minor is lamed by repetitiveness and its end comes more as a mercy than as a fulfillment. Of the three recordings, this new one is a solid and successful compromise between the tense, glutinous (and harshly reproduced) Heifetz mono effort (RCA L M 331) and the broader, more musically sympathetic but violinistically somewhat rough Hewn Menuhin edition (Angel S 369920). Menuhin and Roult, even granting the soloist's occasional pinched tone and awkwardness, play with the most conviction and thus make the strongest case for the work. Perlman's smooth, creamy fiddling, however, is adroitly seconded by his conducting and richly recorded.

The same may be said for the oversize Scottish Fantasy, a stover and agreeable performance in which Perlman's lush approach provides an especially persuasive language to the introductory phrases. My favorites for this piece remain the dark, bur-
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Espana is of course done to death by every virtuoso conductor, but what foreigners, even Spaniards, can match the elasticity, vibrancy, and proud grace of an idiomatically French reading like this one of Mari's? And it is primarily from native interpreters that foreigners can learn the true flavor of Chabrier's other orchestral pieces—not only the brilliantly feisty showpieces, but also such enchanting mood and scene evocations as the Habanera and the "Idyll" and "Sous bois" from the Suite pastorale (orchestral versions of four of the ten Pièces pittoresques originally written for piano solo). The only other recent all-Chabrier program by a French conductor (Louis de Froment's Turnabout TV-S 34671) lacks both the vivacity and refinement to offer any real competition to this characteristic Chabrier program, which wholly excludes those works like the Gwendoline Overture, where he had momentarily succumbed to the lure of Wagnerism.

Ilitzhak Perlman and Jesus Lopez-Cobos—Smooth, creamy fiddling adroitly accompanied however delightful. Symphony on a French Mountain Air.

CIMAROSA: II Matrimonio segreto. For an essay review, see page 95.


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CIRCLE 43 ON READER-SERVICE CARD
This warm, refined reading of Dvořák's most Brahmsian symphony is a fascinating foil for the equally fine but utterly dissimilar Philips recording by Colin Davis and the Concertgebouw (April 1977). Each has a distinct interpretive flavor and points of superiority that balance and counterbalance. In this case an "ideal" performance—i.e., one that synthesizes the merits of the two—does exist, in the form of a recent broadcast performance by Giulini and the Concertgebouw, superior to either of these commercial recordings.

Gulini, who seems of late to have entered a new phase of his career, presents a sunny, plastic, subtly wrought interpretation that nevertheless moves along with a firm kind geniality and keeps a firm eye on the overall architecture. He secures responsive, suave playing from the London Philharmonic, and the reproduction, sleek and resonant, lets the lines sing while putting detail in a slightly soft-focus subordinate position. Switching to the Philips recording, one is immediately struck by the sharper, more direct sound and by the tougher, harder (and, save for the Poco adagio second movement, faster) outlook of Davis. Time and again, Davis resolutely urges his players past a detail or episode that Gulini lovingly caresses, and the darker, grittier sonority of the Concertgebouw adds to the muscle of Davis' reading. One is forced to assess the strength and firmness of Davis' way as opposed to the gentler, but hardly languidly, hand of Gulini.

Gulini's Concertgebouw performance, however, was a little freer rhythmically than the LPO recording, and he utilized the gorgeous dark sonorities of the Dutch orchestra with an imaginative resourcefulness that Davis' more matter-of-fact treatment eschews by its very nature. Moreover, the broadcast performance unearthed a wealth of instrumental detail (and, I admit, a few horn bobbles!) unheard in either of the records under consideration. Were that account available to the general record collector, it would be my clear favorite; since it is not, I must reaffirm the excellence of the Davis record and confess a preference for Gulini's more humane, rhapsodic approach. I would also urge a sampling of the Gulini disc in an imported version: Experience tells me that European EMI records are often masterful with more bite, brilliance and dynamic range than their American counterparts, while nothing about the Angel pressing is unpleasant to the ear. I suspect that there may well be more color and detail in the master tape than I have yet heard.


Tape: • 3300 823, $7.98.

Comparisons: Du Pré, Bruch: / N Y Phil. Berganza, Ansermet/Suisse Romande, Col. M 33970, Lon. CS 6224

This triply promising Tricorne turns out to be a three-cornered disappointment. Teresa Berganza, who sang the two brief solos so well in the famous 1961 London version conducted by Ansermet (who had led the original Ballets Russes production in 1919), now shows more than she sings, with little trace of the ideal suavity and there is no suggestion at all that her second ("Cuckoo") air comes from an off-stage source.

Still worse, Ozawa's reading is more brutally than balkily energetic, often rhythmically stilted or even stiff, and it gives scant indication of genuine personal involvement in or relish of the music. Perhaps most disconcerting of all, both the tonal-color range and the sonic warmth of

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Andrew Davis—Grieg conducting bordering on melodrama

the Bostonians’ playing are unconscionably handicapped by ultrarobust but not particularly vivid recording (in the well-processed cassette as well as the disc) in the constricted acoustical ambience of what seems more like a studio than an auditorium. Presuming that the recording was made in Symphony Hall, this is a technical feat—and error—of no mean order.

The Berganza/Ansermet/London version is still available and still magical. But for the score’s full timbral scintillation and rhythmic intoxication, for a hauntingly evocative mezzo-soprano soloist, and for arresting vivid recording—even when the completely spellbinding enhancements of quadrophony aren’t available—the DeGaetani/Boulez/Columbia version (August 1976) is unmatched.

**FAURE:** Elégie—See Lalo: Concerto for Cello and Orchestra.


This enticing Grieg program includes not only the sung version of Solveig’s Song, but also her rarely heard Lullaby in the secondPeer Gynt Suite. And for extra good measure Elisabeth Soderstrom adds—also in Norwegian—three familiar and two unfamiliar Grieg songs, a repertory sadly neglected nowadays. Given artists of such distinction as Soderstrom and conductor Andrew Davis, and the essential inclusion of both Norwegian texts and English translations, this is unquestionably a valuable release, enhanced by extremely vivid recording.

Nevertheless, I must note that I enjoy Peer Gynt, and indeed most of Grieg’s music, only when it’s done wholly straightforwardly in simple, folksish, open-air manner—as by such native Norwegians as Fjeldstad and Gruner-Hegge or, more recently, as in the salty-fresh Vox versions by Altvanned. And I stubbornly cling to the possibly illusory memories of Norena singing the great “From Monte Pincio,” Frithjof singing “I Love Thee,” and Flagstad singing a variety of Grieg songs. By such criteria Davis’ readings seem often excessively mannered, overvehement, even verging on the melodramatic: the bewitching Stidstrøm’s brilliant voice too often lacks taut vibrato and intensity control.

**Handel:** Sonatas for Oboe(s) and Continuo. Ronald Roseman, oboe; Edward Brewer, harpsichord. [Marc J. Aubort and Joanna Nickrenz, prod.] NONESUCH H 71339, $3.96.

Sonatas, Op. 1: No. 6, in G minor; No. 8, in C minor (with Timothy Eddy, cello). Trio Sonatas (Halle) No. 2, in D minor; No. 3, in E flat (with Virginia Brewer, oboe; Donald MacCourt, bassoon).

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slightly more familiar solo oboe sonatas from Op. 1, for which the harpsichordist’s continuo partner is wisely shifted from basso continuo to cello. The readings are in good present-day baroque-revival style, theperformances deft and persuasive, the recordings admirably clean and unmuddied.

There are just two minor catches. One is that Roseman’s tonal qualities and executant authority are so distinctive that he tends to overshadow his colleagues, the overrehected harpsichordist in particular. The other is that Handelians already have admirable versions of Op. 1, No. 8, in the present-day baroque-revival style. The per-

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KHCATCHTURIAN: Piano Works. David Dubal, piano. [Robert F. Commagere, prod.] Gen-

Although not as well known in this country as larger scale works such as the Gayane ballet suite or the violin and piano concertos. Aram Khachaturian’s solo piano music has a definite attractiveness, and it is well represented on this Genesis release. Like much contemporary piano music, it tends to stress rhythm, open harmonies, and sonority, with sometimes harsh against-hand configurations winning out over the harmonically oriented melodism characteristic of much Romantic piano music. There is also a rather Les Six-ish side to Khachaturian that can be heard in the brand-new Pavane of the openings to the 1961 sonata and the 1965 sonatina, as well as in the 1926 Dance in G minor. Yet a warmth, simple lyricism, with its roots in the folk music of the composer’s native Armenia, also turns up, most apparently in the slow movements of the sonata and sonatina.

Unfortunately, David Dubal’s pianism is nowhere nearly as attractive as the repertoire. His articulation in the numerous sections calling for fast passagework lacks evenness. Even worse, he jumbles everything into an unvaried mishmash so that the separate musical elements never get a chance to assert themselves. In the 1932 Toccata, the recording’s best-known work, Dubal sloughs off the exciting, heavily accentuated syncopations at the opening; he also makes little attempt to give tonal definition to Khachaturian’s rich chords. Throughout most of the other works as well, Dubal captures little of the pulse so characteristic of the composer’s best efforts.

The disc is nonetheless nice to have because of the works it offers: and the high-register piano sonorities, in which Khachaturian composes almost to excess, have been well reproduced. Excessive surface noise, however, detracts from my enjoyment of the music.

R.S.B.


This is the record debut of a young (only twenty-four) but surprisingly mature Austrian cellist. Heinrich Schiff, who has only recently jumped into the spotlight of the European concert world. And, rather surprisingly for an interpreter who first won fame (substituting for Rostropovich) in a contemporary work, Lutoslawski’s cello concerto, he turns out to be one of the increasing number of virtuosos distinguished by powerful Romantic sympathies and affinities. Probably that’s the reason he doesn’t hesitate to risk comparisons with the reigning masters in such staples of the late-nineteenth-century cello repertory as the Lalo and Saint-Saens First Concertos and the ever-popular Faure Elegie—the same programming as that of the well-nigh definitive Rose/Ormandy of 1971, on Columbia M 30113, to say nothing of the Cassadó/Perlma Vox disc (STPL 510 320) of 1960 and, minus the Faure, the Navarra/Munch version for Erato, originally (1967) on Epic and currently available from Musical Heritage Society (MHS 3023).
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I'd hesitate as yet to rank Schiff with the best of his rivals. Rose in particular, but he makes a generally favorable impression and displays exceptional assurance for a youngster. He is open to criticism mainly for the somewhat excessive contrasts between the virility of his bravura passages and the heartfelt fervency of his lyrically expressive ones. In any case, Schiff is not the only attraction here. I don't think I've ever heard the orchestral accompaniment of these works played and recorded with more dramatic force and conviction than conductor Mackerras and engineer Naegler provide.

R.D.D.


The latest contender in the increasingly fierce Resurrection rivalry sets a few world records as it were. One is for softest string playing: Abbado proves that it's really possible to get from ff to ppp in some six bars (before No. 16) only to reach a discernibly distinct ppppp with muted on after No. 24 later in the first movement. Another's a passing feature is the off-stage brass in the finale. Farther away than ever before on discs and almost unnoticeable if you're paying less than complete attention. Finally, the Chicagoans take the prize for underplaying the sehr zurückhaltend at No. 11 (marked noch etwas langsamer), the certmaster just before the mezzo's "Ach nein! Ich Hess mich nicht uhweisen" in the "birdsong" episode. Likewise, the two vocal soloists, while competent and pleasant to listen to, do not scale the heights of many of their competitors.

The set has a prominent sonic problem as well: the extremely low level of its mastering. Some of those awesomely quiet passages have to compete with surface swish. Moreover, the cutting (with exceedingly- and visibly-variable groove spacings) may pose problems for some pick-ups, especially in the quiet passages. Otherwise, the release is impressively engineered in terms of delicately filigreed play of light and shade. This is a less immediate and enveloping acoustic than we heard in DG's last Chicago Mahler recording, Giulini's Ninth (2707 087, July). A.C.

MOZART: Quartet for Oboe and Strings, in F, K. 370; Quintet for Clarinet and Strings, in A, K. 581. Lothar Koch, oboe; Gervase de Peyer, clarinet. Amadeus Quartet (Günther Breest, prod.) Deutsche Grammophon 2530 720, $7.98.

There have been some outstanding performances of this music on records, but the present coupling compares favorably with the best of them. Both soloists, in fact, have essayed their respective works on disc before; though the venerable Amadeus—long associated with Mozart—seems to be represented for the first time.

Gervase de Peyer's new reading of the clarinet quintet improves upon his Angel reading with the Melos Ensemble (S 36241). There is a darker ensemble color from the strings and a greater sense of personal involvement than can be heard in that excellent account, and though the renowned British clarinetist favors a flatter, more restricted type of sonority than Guy Deplus (with the Danish Quartet, in Telefunken 56.35017) or Harold Wright (with a somewhat loose-limbed Marlboro string ensemble on Columbia MS 7447), there is insignifying lift, profile, and character to his phrasing. Another point of interest is De Peyer's interpolation of a small roulade just before the finale to the last movement: a detail that I have grown accustomed to through several of his live performances of the work. (Its authenticity, according to De Peyer, is established by an early edition—and without checking it out, it sounds fine to me.)

The oboe quartet is perhaps the finest of those works Mozart composed during that decade when he withdrew from the string quartet proper, and obbist Lothar Koch makes an excellent "first violinst." He negotiates all the roulades and adagios in his bravura part with consummate pizzazz and virtuosity and (in contrast to the superb but idiosyncratic Pierre Pierlot, with Grumiaux et al., Philips 6500 924) produces a lush sound without any annoying vibrato. I haven't heard his earlier version with members of the Berlin Philharmonic for some years, but my impression is that the collaboration with the Amadeus is a bit tighter structurally and more economical.

DG has discreetly miked the Amadeus at a moderate distance. As a result, it sounds suaver, and clearer, than it has for some time on records. A superb release. H.G.

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Having complained a year ago about the recent neglect of "ballet metamorphoses" (November 1976), I'm pleased to welcome new versions of both the most popular work in this genre and another recorded only once in the past.

Angel's new Gaîté parisienne immediately wins high ranking in the sizable current discography—partly as one of the relatively few versions that include the complete score, partly as the first new recording in some five years and the first in quadriphony, but mainly for bringing back to records the reading of the score's co-creator, Manuel Rosenthal (who was once heard in a highly unsatisfactory 1955 mono version for Kenmont). And, apparently appropriately, the orchestra Rosenthal uses is that of the Monte Carlo Opera, as close as possible to that of the Ballets Russes of Monte Carlo, which commissioned the work and first performed it under his direction in 1938.

Not surprisingly, Rosenthal's performance—plated by a sparkling quintessentially Offenbachian overture, that to La Fille du Tambour-Major—is distinctive for its balletic authority as well as personal verve, while the recorded sonics are vividly and robustly up to date. (Quadriphony adds some expansiveness, but there is no significant loss in stereo.) The main handicaps are the tonal and executant deficiencies of the Monte Carlo players, who, even under Rosenthal, can't match the color and precision of truly first-class orchestras. Hence, my all-round preference remains the still well-nigh ideal, quite unfaded Munich version for London (SPC 21011). And of course both the best-selling 1954 Victrola and 1959 RCA Fiedler accounts (the latter available in two different couplets) remain unique for their vivacity.

But this still leaves an important place—especially among balletomanes' libraries—for the arranger's own version. Its producers deserve our gratitude for jacket notes that not only summarize the ballet’s "story," but specify the twenty individual musical sections. The notes include Rosenthal's account of how he came to write the score (as a substitute for the originally designated orchestrator, Roger Desormez) and how it was first turned down by Massine until Stravinsky's praise for it changed the choreographer's mind.

Hershy Kay's ballet built on Sousa marches and operetta excerpts has had a different history. Still alive and well on the stage, it has been recorded only once before, as far as I know—by Fiedler and the Boston Pops Orchestra for RCA Victor in 1958, the year of its first stage production: that more idiomatic performance is currently available in a Gold Seal reissue (AGL 1-1271). Lewis is an able operatic and symphonic conductor: but neither he nor his British orchestra seems to have any sense of how some of Sousa's best music should sound and swing. It certainly never should sound as brutally blatant and heavy-handed as it does here (except momentarily, as in the superbly smaltzy pas de deux cornet-euphonium duet). And even all the sensational thunders and lightnings of Phase-4 technology can't deafen one to a persuasive tonal and interpretive coarseness. Well, the disc's unexcelled as a lease-breaker.

There's still an aching need for a more satisfactory version of the Sousa-Kay ballet and for new recordings of the Gottschalk-Kay Cakewalk, Scarlatti-Tommassini Good-Humored Ladies, the Boccherini-Francaix Scuola di Ballo (if the missing 1958, the year of its first stage production: that more idiomatic performance is currently available in a Gold Seal reissue (AGL 1-1271). Lewis is an able operatic and symphonic conductor: but neither he nor his British orchestra seems to have any sense of how some of Sousa's best music should sound and swing. It certainly never should sound as brutally blatant and heavy-handed as it does here (except momentarily, as in the superbly smaltzy pas de deux cornet-euphonium duet). And even all the sensational thunders and lightnings of Phase-4 technology can't deafen one to a persuasive tonal and interpretive coarseness. Well, the disc's unexcelled as a lease-breaker.

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likewise concertos. Kyung-Wha Chung seems more at home in the more exuberantly lyrical D major than in the starker, more propulsive C minor, with its heavier domination of chordal writing, its more jagged melodic line, and its often louder goings-on in the orchestral part. In purely technical terms the G minor seems to require no less than three concertos at any price.

My preference among all couplings of the two concertos at any price.

movements of the D major there is much playing that is affecting and characterful, but in the blazingly sonorous conclusion of the G minor her romantic temperament—her shading of tone and use of portamento and rubato—is better suited to the D major.

In general, Chung's work here confirms earlier impressions. In the intimate m

rubato-is better suited to the D major. In the intimate mo-

duration suggested in the score). In addi-

ightly separated the swirling inner notes from which have a greater control of the over-all line and a kind of casual command that eas-

fiev concertos. Kyung-Wha Chung seems

with what frequently appears to be a more lacoicn approach, often seems to be taking faster tempos, but this is largely the result of spacing and accentuation rather than mere speed. Both artists present sympathetic views of this problematical (and extremely difficult) music. Askhe

the (more important) melody. He doesn't nely separates the swirling inner notes from which have a greater control of the over-all line and a kind of casual command that eas-

and magnificent virility that Rachmaninoff

for example, to the startling twenty-minute

her voice spreads uncomfortably and in the latter work she and Prevín, even more than Stern and Ormandy (Columbia MS 6635), fragment structure by exaggerating Prokofiev's indicated tempo changes for contrasting themes. The LSO provides ex-

and magnificent virility that Rachmaninoff

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Both recordings are well made.  H.G.

SAINT-SAËNS: Concerto for Cello and Orchestra, No. 1—See Lalo: Concerto.


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Elaine Comparone is a Massachusetts-born Fulbright fellow who has studied with Ahlgrimm in Vienna and since 1970 has established herself as an active solo and ensemble harpsichordist. She commands impressively strong-fingered, crisp articulation and dynamic variety. It has a distinctive technical feature in its use of "Delria" jacks and plectra, which provide markedly strong string-plucking action—a characteristic that makes for exceptionally clean-cut and full-bodied tonal qualities. And first-rate, ungimmicked recording, not too closely miked and hence freer than usual from extraneous mechanical noises, makes the most of these distinctive sonics. R.D.D.

SCHUMANN: Concerto for Cello and Orchestra—See Bloch: Schelomo.


Prepared by West Coast Scarlattian Gilbert Van Vranken, of over 100 unrecorded Scarlatti sonatas, for no less than five of the twelve pieces played here are drawn from this list and are hence firsts. (The closest competitor in this respect is Colin Tilney with three other firsts in his Argo ZK 5 of a year ago, so far available only in England.) Comparone's new five are all good ones, too: the cheerful K. 12, the inventionlike K. 25, the ceremonial K. 118, the striding balladlike K. 187, and the jolly swaggering K. 409.

The instrument used here, built in 1968 by William Dowd on the model of a 1730 N. François Blanchet harpsichord, is not a particularly brilliant one, but it is of the proper size (not too big) for Scarlatti, while still being capable of considerable registration and dynamic variety. It has a distinctive technical feature in its use of "Delria" jacks and plectra, which provide markedly strong string-plucking action—a characteristic which makes for exceptionally clean-cut and full-bodied tonal qualities. And first-rate, ungimmicked recording, not too closely miked and hence freer than usual from extraneous mechanical noises, makes the most of these distinctive sonics. R.D.D.

Arrau's way with the Papillons miniatures is broad, spaciously relaxed, genial, and affectionate. He eschews some of the sparkle and contrast heard in Richter’s rather over-drawn interpretation (Angel S 36104) and subdues some of the sarcastic humor of Cortot’s (EMI Odeon 1C 147 01544/5). Nor does Arrau favor the crystalline lightness of touch that Perahia brought to this youthful music in concert (his recording for Columbia is due for release soon) or the spontaneity heard from Novaes and Kempff. In its open-hearted, gracious style, though, Arrau offers a masterly account.

The three Op. 28 Romances are even more impressive. Nos. 1 and 3 are swirling and brooding (note the cryptic, phantom-like emphasis he brings to the shadowy second trio of No. 3), and even in the popular No. 2, so often treated as another Schuerrt impromptu, Arrau finds all sorts of psychological implications in his more abrupt, detached, but very intense reading. The usual flow gives way to an arresting, quirky angularity, and there are many instances of impressive voicing and color contrasts.

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disrupted by constant emphases and adjustments, and the sonority is much too ample—ever, at times, prosaically heavy.

The long, lyrical lines of Blumenstuck are sympathetically savored, though Arrau ample—even, at times, prosaically heavy.

The very existence of this score was unknown to me until the disc landed on my doormat, so in writing about it.

The actual bar-to-bar course of the music seems all too often to be dictated by a succession of images that we can only guess at.

Then, EMI's sonics—at least as heard on my.

It gave

As a teenager in Leningrad, he had had the formative experience of playing piano accompaniments to silent films, but it was not until 1928, just after his brilliantly satirical opera on Gogol's The Nose had attracted attention, that the chance to compose a score of his own came his way. It was commissioned by the avant-garde directorial team of Grigori Kozintsev and Leonid Trauberg, whose group (known as FEX, an acronym for Factory of the En
centric Actor) was part of the lively wing of Russian creative life that had not yet succumbed to Stalinist realism. A specially composed orchestral score was something of a prestige item in the days of silent mov

And there are one or two patches of that tender lyricism, usually in waltz-time, that nostalgia for times past would regularly induce. (The waltz, surely, in Soviet music is as much a symbol of the present as the minuet had been of the eighteenth-century aristocracy.)

It is, I think, for this predictable but utterly individual mixture of ingredients that anyone interested in Shostakovich's personality and music will want the record. The actual bar-to-bar course of the music seems all too often to be dictated by a succession of images that we can only guess at through the notes' brief but helpful description of the movie. The score apparently lay unrecognized—or, at any rate, ignored—in the Lenin State Library in Moscow until shortly after the composer's death in 1975. Would he have sanctioned its publication and performance in this unabridged form? I rather doubt it. I must say, since his "abso

But I am glad, for all that, to be able to explore the origins of so much that is individual in his later music—particularly in this stunningly well performed and recorded version. The natural balance of the small ensemble, with its highly individualized timbres (including a "lute" music, even at its most diffuse, ob


Comparison—symphony

Davis/ Boston Sym. Phil 9500 140

After Colin Davis' symptomatic first (June 1977), this new issue has a few disadvantage.

The Bournemouth Symphony, though possessed of a fine first clarinet and darkly imposing low brasses, lacks the polish and virtuosity of the Boston Symphony. Then, EMI's sonics—at least as heard on my Seraphim pressing, which in heavily scored
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passages sounds like mud splattering from a bog—lack the sparkling translucency of Philips. And Berglund is less concerned than Davis with nuances of tempo and dynamics.

Nonetheless, the present reading has a sense of impassive authority, a kind of brooding inevitability. Berglund, though some two years younger than Davis, leads a performance of the kind often associated with an older man—not so riveting in detail, nor ardent in affection, but strong in its sense of deep identification, of organic rootedness. The fast sections of the scherzo and finale may go along almost stolidly, but the grand sweep of the symphony as a whole carries its own involving excitement.

At the Seraphim price, this is a compelling version. The first (Op. 25) set of Scènes historiques is an attractive and substantial coupling, though Jalas (London CS 6856) offers the Op. 66 set as well, for the complete Sibelian—albeit Op. 25 is less appealingly played and recorded than Berglund's. A.C.

Sousa: Stars and Stripes (ballet; arr. Kay); Marches (arr. Rogers)—See Offenbach: Galápariense.


“Sousa: Stars and Stripes (ballet; arr. Kay); Marches (arr. Rogers)—See Offenbach: Galápariense.”

Arthur Fiedler
Another Strauss treat for Fiedler fans

Here's what I—and I'm sure many other Fiedler fans—have been waiting for: not only another of the too rare Bostonian Strauss releases, but one that, unlike last year's otherwise outstanding London Phase-4 waltz program (SPC 21144, August 1976), dips back into the unfamiliar repertory the conductor pioneered in bringing to American listeners' attention. Except of course for the high-voltage Tritsch-Tritsch Polka and the great Emperor Waltz (which Fiedler takes more briskly than anyone except Boskovsky and which he endows with more resplendent sonics than anyone, period), the present selections are heard all too seldom nowadays, at least outside the Viennese Light Music Society's specialized catalog. Yet, believe it or not, apparently only Father Johann's chipper Chinese Gallop and the son's opulently colored Tales from the Orient Waltz were not recorded by Fiedler for RCA Victor back in the '30s, '40s, and early '50s. It's good to have them—the unjustly neglected New Vienna Waltz and the sonic-spectacular Im Krupfenwald'I Polka-Française in particular—in typically exuberant Fiedlerian performances now given expansively big, vividly incandescent, yet almost palpably solid recorded sound in an unmistakably authentic Symphony Hall reverberant ambience.

Now, how about new life for one of the earliest Strauss/Fiedler novelties: the Op. 364 Wo die Zitronen bluhn Waltz and the still unfamiliar works in the celebrated "Mr. Strauss comes to Boston" program of 1954?

R.D.D.

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R. D. D.

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At her best, as she frequently is on this disc, Ilana Vered has a natural expressiveness, the ability to “sing” a melody adaptably, to “float” a phrase with easy tonal beauty. Her way with the Satie Gymnopédie No. 1, though removed from the deadpan, “idiomatic” French style, is quiet, serene, and altogether lovely in its outgoing directness. I also found her staccatissimo account of the Schubert F minor Moment musical full of engaging personality, and the concluding Ben-Haim Toccata pianistically impressive (after that horrid xylophone-accentuation induced by the recorded sound in the opening repeated notes). The Bach-Hess Jesu, joy of man’s desiring, whose benign repose would seem...
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temperamentally at the opposite pole from Vered’s sensationalistic approach, is a bit too broken up and extroverted but not unappealing.
Vered has the talent and temperament to succeed without London’s crude promotional hokum, which carries over into the engineering (the Rachmaninoff C sharp minor Prelude, for example, emerges with beefed-up, sensual bass and glassy, shark-tooth treble) and into the playing (the Liszt Hungarian Rhapsody No. 2 is fitfully egocentric, the Schumann “Traumerei” so faint that many of the left-hand chords fail to register properly). For all that, much of this recital is affecting as well as affected—incomparably better than the dull, petulant, small-scaled Tchaikovsky First Concerto and Stravinsky Petrushka scenes (SPC 21148, November 1976). H.G.

JONATHAN WOODS: Battle Imperial (Spanish Harpsichord Works). Jonathan Woods, harpsichord [Philip Greenspun, notes] London CS 7046. $7.98 Tape CS5 7046, $7.95.

In this record debut, Texas-born Jonathan Woods goes all out to demonstrate dramatically that he is not just another rookie in the fast-growing ranks of harpsichordist/musicologist youngsters. Backed to the hilt by Peter Borchard’s ultrabust, vividly close, and realistic recording, Woods not only flogs unmercifully his big 1964 Rutkowski & Rubinette instrument, but exhausts its elaborate timbre, pitch (including a 16-foot stop), and sound-effects potentials—along, inevitably, with volleys of mechanical-action noises. The over-all result, especially in the only too realistically depictive title piece and even at drastically reduced playback levels, is what is probably the most sonically spectacular harpsichord recording to date. One sure to be a demo staple in high fidelity shows and audio dealers’ salons.

The emphases on sheer sensationalism—to say nothing of Woods’s own blazing digital virtuosity and seemingly inexhaustible, almost frenetic energy—unfortunately tend to distract from more substantial but quieter musical attractions, most of which (with the exception of Cabanilles’s Bataille Imperial and perhaps Soler’s apochiesis of the Fandango) call for a much smaller and less powerful harpsichord than the one used here. Woods is indeed capable of more delicate, even graciously lilting playing, as he proves in a few, all too rare moments.

It’s only too easy, however, to overlook the likelihood that several composers may be represented for the first time on discs: the obscure fifteenth-century Francisco de la Torre and such no less obscure seventeenth-century worthies as Dr. Jose Bassa and Bartolomeo Olague. It’s also easy to forget that the present harpsichord versions of the Cabezón Variations on “El Canto del caballero”—illuminating new facets of the work, usually heard only in organ performances—and one is even likely to underestimate the incalculable Soler masterpieces that occupy the disc’s full second side: the lengthy improvisatory Fandango, fiercely bravura B minor Sonata (Marvin 16, Rubin 10), and nobly eloquent D minor Sonata (Marvin 18, Rubin 10), and nobly eloquent D minor Sonata (Marvin 18, Rubin 10), and nobly eloquent D minor Sonata (Marvin 18, Rubin 10), and nobly eloquent D minor Sonata (Marvin 18, Rubin 10). For that matter, the eponymous battle piece is not without historical interest as at least one of the less naive and vulgar examples of its century’s popular didactic genre. It’s been recorded before, but only (I believe) in organ versions, like that by Ortiz in the all-Cabaniilcs program. Musical Heritage MHS 3089. If you’re militantly minded enough to take more of the same, there are no fewer than nine battle pieces played on the organ by Haselbock on Musical Heritage MHS 1790 by Cabanilles (Batalha II), Banchieri, Bull, Cabezón, Frescobaldii, Jimenez, Krell, Krieger, and Löfotbficz.

Finally, this endlessly provocative re-release raises technical questions of another kind when one turns to the cassette edition. Normally, nowadays, disc and cassette editions of the same recording are close if not exact sonic, spitting images. Here, however, they scarcely could be more different if they represented different takes with different microphone placements, which I’m assured is not the case, since only one master tape went to English Decca from the originating Pavane Productions in New Jersey. But the British tape editor can’t have listened to his disc colleague’s work. The cassette’s frequency-spectrum balance is markedly different from the disc’s, with less brilliant highs and markedly more percussive quality. The tape is technically effective in its own way, but it’s surely less authentic sonically.

R.D.D.

A BRIDGE TOO FAR. Original film soundtrack recording. Composed and conducted by John Addison [John Addison, prod] United Artists LA 7624. $7.98.

You can take the bounce out of the film (when is the last time you saw a war movie end a Seventh Seal?), but you apparently can’t take the bounce out of John Addison. A Bridge Too Far deals in a fragmented, rather anti-British, and fairly uncompromising manner with one of the Allies’ costliest failures during World War II. Yet Addison, who actually took part in the operation on which Bridge is based, could find nothing better as a main theme than a catchy little stiff-upper-lip march that sounds like filler music for a soldiers’ revue.

Most of the best moments come in the unthreatening mood-sustaining sequences. But the main theme keeps intruding with a vengeful and thinly veiled alarmism. Boston Popish aubade that should raise the score. Fans of jaunty tunes, of course, may find much of this thumpily recorded album just their dish. But as music for a Bridge Too Far, it just does not work.

R.S.B.

Continued on page 134
"SPECTACULAR"

and other comments from audio critics about the new Ohm L:

From The Complete Buyer's Guide To Stereo/Hifi Equipment:

"Ohm Acoustics is an adventurous speaker company known for turning mathematical theory into fine sound. They perfected the Walsh driver, and the resulting speaker is one of the finest available at any price.

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"In summary, the Ohm L...is easily good enough to meet the sort of critical standards usually applied to much larger and considerably more expensive speaker systems."

"The upper mid-range and high frequencies were virtually perfect."

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CIRCLE 41 ON READER-SERVICE CARD

November 1977


PROVIDENCE. Original film soundtrack recording. Composed and conducted by Miklos Rozsa. [Philipp Dussart, prod.] EM ODEON 2C 066 14406, $8.98 (distributed by Peters International).

Unlike many film directors, Alain Resnais, considered part of the French New Wave, has often had to rely on a talented composer to accompany his films. Consequently, he has covered a widely varied musical range with his seven feature films. Last Year at Marienbad has a spooky organ score quite different from the music called for by scriptwriter Alain Robbe-Grillet. Je t'aime is a musical meditation, the sound of church bells (dubbed by Krzysztof Penderecki) and for Stavisky (RCA ARL 1-4065) Resnais music's conception of the movie led him to Broadway composer Stephen Sondheim.

For Providence, the director's first English-language film, he turned to Miklos Rozsa, a name inevitably associated with the typical Hollywood productions of the Forties and Fifties. It is only when you see the film that you realize what Resnais had in mind by enlisting Rozsa's services. Within its space-and-time-out-of-mind perspective—an aging author (John Gielgud) in the typical Hollywood productions of the 1940s, 1950s, and 1960s—his music adds a temporal dimension that is deliberately out of sync with the story's other time layers. The score is also out of sync with the action. Except for the romantic piano-dominant Prelude; Nocturne; Deportation Scene. The seven scores excerpted on this third disc in Polydor's distinguished Rozsa series have solved the paradox of his profession: to successfully documenting a different side of the composer's art, are therefore doubly welcome. The Rollercoaster album offers a mixed bag. For starters, the main theme, heard for the last time on the disc in a soaring, beautifully recorded calliope arrangement, has a captivatingly off-center quality that is due to a clever use of a complex modulation. The score also includes rock, small-group blues (used for the theme of Harry, the principal good guy, big-band jazz, a Charleston, and some classy suspense music.

The latter is based on a nervous, two-minute prelude ingeniously taken from a string-quartet movement played as part of a scene in which the nameless bad guy appears for the first time. Although there is something disturbing about the film's association of homicidal psychosis with one of the most "highbrow" forms of music, the rollercoaster, with its classical harmonies and its Ravelian grace, adds an important dimension to the disc.

Unlike Rollercoaster, Schifrin's Voyage of the Damned, score, which was nominated for an Academy Award but lost out to Goldsmith's The Omen (Tatton III, 3 1009; MCA 4275), is a straightforwardly macabre score. It is, furthermore, unified by a single theme, a mildly acerbic melody with icily chromatic contours that often clash with the sustained chordal harmonies.

Although the theme is heard in almost every sequence, Schifrin presents it in such varied instrumental and harmonic contexts that there seems to be no repetition at all. In fact, the final cut its character is transformed into a Nino Rota/Fellini-esque fox-trot, putting the film's only partially happy ending in a rather ironic light.

Considering the Jewish tragedy involved in Voyage of the Damned, the score contains surprisingly few Semitic modes or theme patterns. Precisely because it does not make constant allusion to the film's narrative, the music, with its subtle, close dissonances and its transparent instrumentations, seems to blend in and become part of the movie. And it benefits greatly from Entr'acte's fine recorded sound, which has depth and balance, as opposed to MCA's more pop-oriented, if spectacular, sonics. Both discs should belong in any self-respecting film-music buff's collection, and I suspect that strictly "classical" listeners will find much to like in Voyage of the Damned. R.S.B.

RÓZSA CONDUCTS RÓZSA. Royal Philharmonic Orchestra, Miklos Rozsa, cond. [Brian Culverhouse, prod.] POLYDOOR (Great Britain) 2383 440, $8.98 (distributed by Peters International).


The seven scores excerpted on this third disc in Polydor's distinguished Rozsa series span thirty years of the composer's fruitful career and document how successfully he has solved the paradox of his profession: to perpetuate a distinct stylistic identity and personal artistic development while always keeping in primary regard the musical re-
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It is unfortunate that Polydor has chosen an anthology format for its Rozsa series. This bits-and-pieces approach seldom allows a score's full breadth and scope to come across to the listener. But until more complete recordings become available, these brief excerpts will remain mere morsels to treasure.


John Williams' score for director George Lucas' space extravaganza Star Wars is not at all the type of music I had expected. Instead of the trappings commonly associated with such films—electronic walls and screeches, bizarre avant-garde effects, quasi-atonality—he has concocted a thrilling Korngold-style adventure-film score. (The Sea Hawk and The Private Lives of Elizabeth and Essex are the obvious inspirations.) Since Star Wars is technically not science fiction, but a blend of romantic fantasy and swashbuckling adventure, a conventional science-fiction score would have been inappropriate: a lavish Romantic adventure score—wit, gusto and vibrant sparkle—is a revelation.

Williams, a leading proponent of the current trend toward eclecticism in movie music, has composed a fine assortment of lush themes and motifs for the film's principal characters. A rousing and triumphant tondo-dominant statement by the brass heralds Star Wars' hero, Luke Skywalker: an equally noble and spiritually soaring theme identifies Luke's mentor, Obi-Wan Kenobi; and the metaphysical, all-powerful entity of the universe he represents, known as the Force; and for Princess Leia. Williams has composed an ethereal little nocturne that suggests Luke's enchantment with her. There are suitably ominous fanfares and rumblings for the villains and an amusing bit of competent artistry in how an all-alien cabaret band might interpret 1930s swing.

This is all music on a grand scale and easily the versatile Williams' most elaborate effort to date. A generous seventy-four minutes of the full ninety-minute score performed by the London Symphony (particularly worthy of praise is the brass section, which gets quite an exhausting workout), is presented on two superbly recorded discs, making this one of the few double-LP soundtracks ever issued. In compiling this album, Williams has tried to present the score in a more listenable concertlike format. Though by rearranging cues far out of their original sequence and combining cues from different parts of the film he has foreclosed a listener's attempt to maintain continuity.

My one reservation about this music is its lack of a genuine Romantic sensibility to substantiate the borrowed Wagnerian form. This comes some of the music to wear a little thin after a few hearings but does not negate its absolute effectiveness in the film and its immediately engaging qualities. In fact, Star Wars may well be one of the great rarities in recent years: an instant film music classic.

R.F.
The first Barclay-Crocker orchestral reels inaugurate a new-era Vanguard series with two programs appearing for the first time in the open-reel format and another, given arrestingly improved processing over its 1963 Ampex version. All three have been produced with the high-quality characteristics that distinguished the initial B-C Musical Heritage Society releases noted last August: Dolby noise reduction, low-speed duplication, handsome labeling and annotation. The full progress represented is perhaps evident only when one directly compares Vanguard/B-C D 0275, $7.95, with the long-out-of-print VTC 1073 version. Color, frequency, and power ranges have been markedly expanded; transparency, glitter, and transient response are notably refined. Best of all, the musical selections are ideally suited to display the original recordings belatedly realized potential. Morton Gould’s Latin American Symphony comprises symphonic-pops rumba, tango, guacharaca, and conga apostochees. Gottschalk’s superbly evocative Night in the Tropics combines a sensually romantic Andante with an intoxicatingly rhythmized Allegro moderato. And if Hershy Kay’s orchestration of the Gottschalk Grand Tarantelle is largely nineteenth-century tastian, it does provide a bravura showpiece for piano soloist Nibley, Abravanel’s Utah Symphony, and Vanguard’s recording engineer.

The other two reels, also $7.95 each, are less sonically spectacular but generally more substantial musically: the Dvorak/Albeni Mahler Fourth Symphonies (D 10042) and Haydn Symphonies Nos. 90 and 91 by the Esterhazy Orchestra under David Blum (D 10044), both from 1969. The former, the first recording of the Fourth to use the critical edition of 1963, was taped earlier in a Cardinal/GRT cartridge version (“Tape Deck,” May 1976), but the new one not only avoids any mid-movement break, but does fuller justice to the warmth and pianicity of the master tape. The Haydn program is especially valuable for its delectable Symphony No. 90, a work otherwise unavailable in any tape format.

...and more Heritage chamber programs. Barclay-Crocker’s series of reel editions ($6.95 each) of Musical Heritage Society recordings is extended by three releases of largely specialized interest. But two of these are of very special value. A Gluck program (C 1973) couples the familiar mellifluous Trio pathétique with the first (I think) recordings of six piano pieces reflecting the influence of John Field, played to perfection by Thomas Hynkiv, who is also the pianist with clarinetist Lamneck and bassoonist McGraw in the trio. The other (C 3047) is seemingly for Kodalians only, but if you’ve never heard the poetically eloquent Duo, Op. 7, or fabulously bravura unaccompanied Cello Sonata, Op. 8, these works—appearing for the first time on tape in admiringly recorded performances by violinist Leonard Posner and cellist Paul Olefsky—proffer novel yet incalculably rewarding experiences.

Members of the Soni Ventorum wind quintet give their zestful best to a Poulenc/Villa-Lobos program (C 3187), and they are given vivid, close-up recording in a rather dry studio ambiance. But the Frenchman’s clarinet/bassoon sonata and clarinet/bassoon/piano trio are already outdated Parisian vogue-music. And while the Brazilian’s oboe/bassoon duo and clarinet/bassoon/piano Fantasia concertante have solid substance, they too are of strictly limited appeal. (Mail orders only: to Barclay-Crocker, 11 Broadway, New York City 10004.)

But somebody must love them! If the choice of open-reel releases is still lamentably limited, that of music-cassettes is now bewilderingly wide. So as I rule I tend to select for discussion those cassette programs that promise the best returns on one’s monetary and listening-time investments. But there also are seemingly attractive releases that turn out to warrant warnings rather than recommendations. Two major opera enterprises are conspicuous examples: London’s Flying Dutchmen (OSA 3119, boxed, $23.95), even though it stars Norman Bailey with Solti and his Chicagoans; and Philips’ Rhenish (7699 045, boxed, $23.85) although it stars Evelyn Lear and Frederica von Stade with De Waart’s Rotterdam Philharmonic.

It’s less surprising that the Hamline University/Twin Cities forces under William L. Jones should sound amiable in Britten’s charming St. Nicholas cantata (Musical Heritage MHC 5484, $6.95 list, $4.95 to members), especially to anyone who remembers the 1955 composer’s version. But it is startling to find such relatively little dramatic conviction in a generally well sung and recorded Berioz Requiem with Bernstein conducting a French chorus and orchestra in Les Invalides (Columbia MT 34202, $7.98). And they have neither notes nor texts.

Elsewhere, others may be less concerned than I am by what I consider to be weaknesses in the readings of two great Byrd Masses (Argo KZRC 858, $7.98: no notes but no texts) and the Siegel/Slatkin performances of Gershwin piano and orchestral works (Vox CT 2122, $4.98). Both programs are very well sung or played and recorded, which well may be enough for many listeners. (Slatkin’s Cuban Overture is true magic!) But I’m most aware of the lack of airborne flow in Preston’s often arbitrary Byrd treatments and of the lack of rhapsodic force in the Gershwin concerto, rhapsody, and variations.

Expectedly/unexpectedly reliable. What a relief it is to turn to the realization of promised rewards and to serendipitous joys for which one is wholly unprepared. My standards for the heavenly Schubert Ninth Symphony and Dvořák’s still too seldom heard or appreciated Seventh scarcely could be higher. Yet my most exorbitant demands are not merely met but prodigiously exceeded by their latest—and, for me, best—recordings from Philips, both by the Amsterdam Concertgebouw, conducted by Haitink (7300 510) and Colin Davis (7300 535), respectively.

Then, no one familiar with the old Rostropovich Russian recordings of Bloch’s Schelomo and the Schumann cello concerto could fail to expect something extraordinary from up-to-date versions with Bernstein, no less, conducting the French National Radio Orchestra. And if their magnificently big and rich approach is just a bit too much for the Schumann, it makes the most of the kaleidoscopic scoring. And if their magnificently big and rich approach is just a bit too much for the Schumann, it makes the most of the kaleidoscopic scoring and Old Testament grandeur of the Hebrew rhapsody (Angel 4X 37256, $7.98: no notes).

On the other hand, I had no high hopes for the now somewhat rundown D’Oyly Carte company’s recording of The Grand Duke, the least successful commercially of all the G&S operettas (London OSA 5206, boxed, $15.95: notes but no texts). And practically all I knew about Montemezzi’s L’Amore dei Tre Re was that it was just another Italian verismo opera (RCA Red Seal ARA-1394, $7.98 each: no notes or texts). How wrong can one be? The former is only competently sung, but it contains some of Sullivan’s best music outside Princess Ida. And even in excerpts only, the latter—starring Moffo, Domingo, Siepi—is a thrilling revelation of theatrical eloquence.
Steely Dan Sans Sarcasm
by Sam Sutherland

Steely Dan has been insinuating their mordant, pop-noir sensibility into the American musical mainstream for over five years now, and from the outset they've smartly chosen to conceal their weapons rather than brandish them foolishly. They conceive their darkly comic vignettes and edgy, oblique confessions as pop songs with snappy choruses, crisp instrumental hooks, and ensemble settings that integrate bebop, Chuck Berry, and Ellingtonia seamlessly, without disrupting the flow of the music or its sleek aural finish. Eclecticism, both verbal and musical, never impedes the sheer momentum of their songs.

Walter Becker and Donald Fagen, whose songwriting collaboration led to the invention of the Dan as a putative rock band, don’t break pop conventions when they can warp them, and this they do with disarming ease. As popular music’s thematic range in the '70s continues to contract to a time-honored preoccu-
A lot of people really don't give a tinker's damn what you're singing about, and we're aware of that. A lot of people really don't give a tinker's damn what in particular you're singing about, and we're aware of that. So it should work that if, theoretically, some portion of our audience didn't understand the English language to any significant extent—which may be true for all I know—these things would actually sound good.

Yet Becker and Fagen continue to invest their work with ideas that clearly don't stem from contemplation of the Top 40. The songs invert rock's cult personality, contradicting the Dan's own celebrity. The band's presence is shadowy, its identity subject to chameleon change. Instead of providing a familiar voice that mirrors a hip status quo, it exploits the multiple viewpoints of fictional narrators encountered on the brink of hysteria, despair, or bloodlust. Their fables are encoded in vivid language that transforms street patois, pop clichés, and dialogue into symbolist props, and Becker and Fagen themselves remain ciphers.

Their history reinforces that anonymity. When producer Gary Katz first heard their material at the turn of the decade, Becker and Fagen were still trying, with little success, to write pop songs for mainstream performers. The collaboration had begun at Bard College during the mid-'60s, where the pair was involved with a series of bands that somewhat prefigured Steely Dan in the leaders' insistence on driving players beyond the musical devices and instrumental techniques of rock and blues. After Bard, they headed down to New York to push their songs, working at one point with Jay & the Americans as supporting musicians.

"Before we had Steely Dan, we wrote what we felt were very respectable pop tunes that your average B flat female vocalist might be honored to do," Becker recalls. "But we could never find any average B flat female vocalist who felt that way about them. And it was obvious because there was always some element of this fatalistic mentality that crept into the lines and the tune.

"Back when we were working with Jay & the Americans, we tried to disguise this to whatever extent was possible. "Course, we were never very successful—it's amazing how efficient your average pop culture artifact vocalist is in detecting the slightest degree of weirdness or perversity in what is supposed to be essentially a love song."

Katz was equally efficient in detecting the duo's underlying point of view, but his reaction was far more enthusiastic. His belief in the partnership extended beyond the songs to a conviction that Becker and Fagen could come up with good records on their own. Although while under contract to ABC Music they still had little success in placing "hits," Katz persuaded ABC Records to sign them to a recording contract. "When I first convinced Jay [Lasker, then president of the label] to let me sign Donald and Walter as artists, I said to him, 'Forget about it for a year or two or three. It's gonna take a long time for people to listen to this.'"

Thus was born Steely Dan, not out of B-movie dreams for fame and glory but out of two songwriters' need for a vehicle for their material. The band assembled for the first album sessions was composed primarily of other East Coast musicians who, like Becker and Fagen, had come to Los Angeles. enticed by its growing importance as a production center. The preliminary quintet could have easily been mistaken for a rock band: drummer Jim Hodder, guitarists Denny Dias and Jeff Baxter, Becker on bass, and Fagen playing keyboards and singing most of the lead vocals as much by default as by design. A sixth member, vocalist David Palmer, was added near the completion of sessions for the first album. "Fagen and I found out our manager was booking gigs on the road for us, and there was some feeling that maybe it would be helpful to have a singer out front," says Becker. Although Palmer did complete the first tour, Fagen's vocals had already begun to leave their stamp, and Palmer was dismissed prior to sessions for the next LP.

Steely Dan used electric guitars and a powerful rhythm section, but in nearly every other regard "Can't Buy a Thrill" took a very unusual approach. After the '60s, the idea of a rock band was predicated to some extent on improvisation, with the extended solo the coin of the realm. By contrast, the Dan built their arrangements into the songs, so that, while their records featured solo work, the material was more tightly structured, with melodic ideas dictated by the arrangement rather than simply built over the basic chord progressions.

The debut album was released in the summer of 1972, and it proved that Gary Katz's only miscalculation was his timetable for recognition. FM programmers started playing the moody, Latin-tinged opening track, Do It Again, with enough regularity to force the release of an edited single version. The song was a hit, as was a second single, the even more impressive Reeling in the Years.
The next album, “Countdown to Ecstasy,” brought their interest in jazz styles, as well as their bleak perspective, more than the customary step forward. The songs were longer, the imagery blacker, and the attitude toward rock mythology more explicitly caustic. Perhaps those developments accounted for its far cooler reception and, to a lesser extent, prompted the briefer, more conventionally pop-styled songs on the next album, “Pretzel Logic.” That brought the group their next—and thus far last—hit single. Rikki,

Their continued dislike for California and... rejection of the hip elite only enhanced their mystique as... mean-spirited misanthropes.

Don’t Lose That Number, a love song of sorts that was as melancholy as it was mysterious.

“Pretzel Logic” was the final album recorded by Steely Dan in the guise of a formal band. With the sessions for “Katy Lied,” the follow-up, Becker (now playing guitar as well as bass), Fagen, and producer Katz handpicked musicians for specific tracks (as they had already done when using additional “specialists” for the first three albums), enlisting six guitarists, two keyboard players, two bassists, and a roomful of singers and percussionists. Their choices were illustrative of their goals: On the one hand, they added crack pop and rock performers like Rick Derringer, Elliott Randall and Jeff Porcaro, on the other, veterans like Victor Feldman (senior member of the Dan auxiliary, having played on all the albums) and Chuck Rainey made their interest in jazz more apparent than ever, which they capped by Phil Woods’s stunning alto sax solo on Doctor Wu.

Steely Dan had emerged as what Katz calls a “floating workshop,” not a band. And its two project leaders were thus irresistibly cast as auteurs, a role they filled more naturally than most pop creators who are viewed in that light. Their continued dislike for California and a corresponding rejection of the hip elite only enhanced their mystique as reclusive, sometimes mean-spirited misanthropes, attracting a core audience who concentrated more on the Dan’s corrosive lyric sense than the music framing it. Critical profiles also gravitated toward the songs’ arch wit and underlying fatalism, diverting attention from the allusive, intelligent arrangements. The tension between musical confidence and psychic anxiety, which is the heart of their style, thus became a line of demarcation dividing their fans.

“Tradition and experimentation reign side by side,” observed Tristan Fabriani (a Dan nom de plume) at one point in the liner notes to “Can’t Buy a Thrill.” Although intended as a parody, the slogan rings true of Becker and Fagen’s musical views. Becker recalls his earliest songs, written in high school years before he met Donald Fagen, as “altered blues.” They began with conventional modal harmonies and then moved into other directions, “not unlike some of the things we’ve done lately.” Such transformations are seldom abrupt. Even their fastest, hardest numbers don’t rock as much as swing. The drummer breaks up the beat with fluid fills, or skips across it to drop lightly into a new time signature; guitars climb slowly from familiar rock motifs, unraveling a blues line until it winks into ringing, angular chromaticism light years away from kilowatt rock. Piano chords chop against the rhythm in laconic syncopation, blocking out wry harmonic comments on the melody, while a sax obbligato surfaces to whirl through hard-blown but lyrical turns before diving back under the oncoming vocal chorus. The chorus may change key every few bars or

more verbally oriented fans sometimes miss.

While Fagen simply calls it “a wide range of listening experience,” his partner is more explicit. “We’ve always written in the context of rock & roll writers.” Becker claims, “and clung to the pop song form, to bridges and choruses and things like that. But expanding the harmonic context a little bit was also something that we always did, and it grows from a number of things... from jazz, and from traditional popular song form.”

Accordingly, Steely Dan songs are concise extensions of familiar harmonic patterns. Becker recalls his earliest songs, written in high school years before he met Donald Fagen, as “altered blues.” They began with conventional modal harmonies and then moved into other directions, “not unlike some of the things we’ve done lately.” Such transformations are seldom abrupt. Even their fastest, hardest numbers don’t really rock as much as swing. The drummer breaks up the beat with fluid fills, or skips across it to drop lightly into a new time signature; guitars climb slowly from familiar rock motifs, unraveling a blues line until it winks into ringing, angular chromaticism light years away from kilowatt rock. Piano chords chop against the rhythm in laconic syncopation, blocking out wry harmonic comments on the melody, while a sax obbligato surfaces to whirl through hard-blown but lyrical turns before diving back under the oncoming vocal chorus. The chorus may change key every few bars or

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Firsthand testimony reveals a near-obsessive demand for precision in the studio. Their own small-ensemble jazz arranging techniques, along with their use of crack outside arrangers to polish some horn charts, compels the pair to guide more rock-oriented players beyond their usual frame of reference. "Talk to any guitar player we've worked with," suggests Becker. "Donald and I have been busting guitar players' humps for, oh, five and a half years now. That's easy to verify."

Accordingly, Elliott Randall will reminisce about six-hour sessions devoted to polishing twelve bars of rhythm guitar, while Jeff Baxter, now with the Doobie Brothers, calls them the most intelligent pop writers and arrangers he's worked with. The Dan studio legend includes stories of entire band tracks scrapped because of a single unsatisfactory phrase in an otherwise flawless performance—even though they could easily overdub the entire part, or punch in over the earlier take.

Because they rarely tour (a tentative fall tour, if it materializes, will be their first live exposure in over three years), their economic situation is far less bullish then their gold credentials might suggest. "Our record budgets are large, and our record sales are moderate," says Fagen. "These days we probably spend maybe half what the profit is." Their next album will be their last for ABC and, like the last few, will pay a higher royalty than their original agreement. Still, the sessions for their new LP, "Aja," were among the costliest to date, and even though the contract with Warner Bros. is said to be much more advantageous both creatively and financially, they remain stubborn in their refusal to tailor their schedule to record company stratagems if it would mean threatening the music in any way.

So Walter Becker and Donald Fagen are, in Katz's words, "resigned" to the recurrent technical gremlins that have plagued the final stages of nearly every album. They can't even listen to "Katy Lied," which they say was "damaged" by a faulty noise reduction system during the final mix. In the same way they're resigned to their "modest" popularity, which after all enables them to keep making these arch, idiosyncratic rock albums. They're resigned to their California exile, living amid what they see as the revival of "gay Fifties culture" in the West Coast of the '70s. They're even resigned to the perfectionism that prevents them from being able to enjoy their earlier records or to use what Katz says are "some terrific songs" left over from earlier sessions, because they sound dated to the Dan's ears. And they're resigned to accept the overserious cult worship of listeners who hear the fatalism of their music but not its humor.

"We do think these songs are pretty funny, by and large," Becker remarks in his laconic fashion. "In fact, we have a hell of a time writing these lyrics, whooping it up over how hysterically comical we think it is. It may not be as funny once it's all assembled."

"It's just popular music," Fagen offers. "I can be listened to at any level."

You'd almost think they were just making rock records.

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"The Dan studio legend includes stories of entire band tracks scrapped because of a single unsatisfactory phrase."
Mix to Master to Mother to Disc: Manufacturing a Record

by Howard Cummings

The pictures on these pages were taken at the Capitol Records cutting studio and pressing plant in Hollywood and Atwater, Ca., respectively. The author's descriptions of the processes involved in cutting a record are based on his observations of these two facilities.

After mixing down from 24 or 16 tracks to 2, adding equalization and echo-reverberation, compressing the dynamic range, placing the instruments in the stereo image, balancing the levels, etc., the final stereo mix is ready for the disc-cutting studio. This may be associated with a record company, as is the one I recently visited, or it may be one of the many independent operations that serve clients from aspiring songwriters to independent record companies. At the cutting studio, the pair of signals from the two-track 1/4-inch master is processed through a tape-to-disc transfer console for final level adjustments. From there it goes to the cutting lathe (which looks something like a 2001 turntable) where a high-precision stylus cuts a continuous groove into a lacquer disc. Lacquer is basically composed of cellulose nitrate, solvents, a castor-oil plasticizer, and dyes, all of which are deposited onto a thin aluminum substrate plate and then carefully dried so that surface irregularities do not develop.

Once a blank has been chosen and carefully inspected for any deformities that might damage his precision cutting stylus, the engineer cuts a reference lacquer for review by the producer. Simple changes, such as overall reverb, eq., or limiting-compression, can be accommodated in-house with the engineer re-cutting to the producer's specifications. Problems beyond these—such as instrument balance or too much reverb—generally result in a step backward to the recording studio mix room.

When the ref is finally approved, "master" lacquer blanks are chosen, this time with ruthless scrutiny since a flaw at this stage will affect all successive stages, right through pressing and packaging. Blanks used for 12-inch LPs are 14 inches in diameter while 45s are cut on 10- to 12-inch discs; the extra size not only provides a banding sample to check signal-to-noise and groove geometry, but also facilitates easier handling in plating (the next step).

Due to the wear and tear of the plating process, several masters are usually cut simultaneously. The
The exact number is finally determined by sales forecasts. Linda Ronstadt may need a dozen, while a newcomer would need only one or two. Masters are then shipped to one of the hundreds of pressing plants in this country, where they are coated with a thin layer of metallic silver, making them electrically conductive. Silver has been found to be the best conductor that will adhere to lacquer, accept a nickel coating, and separate easily from nickel.

The silvered lacquer is then electroplated to a carefully measured thickness in a pure nickel solution bath. This forms a negative image "metal master," which is removed from the solution, separated, and inspected for imperfections. If none are found, it is washed in distilled water and a scrubbing solution, cleaned, and polished.

The positive-image "mother" is made from this negative master, again by means of immersion in a nickel solution (above 100 degrees) for about an hour. After cleaning, it goes to the "mother tester," who plays it through complete. If he finds any defects, a high-powered microscope is called in to determine when the flaw occurred—in plating or in cutting. If in plating, and if it is superficial enough, jeweler-type precision "pricking" tools can be used to remove it. If that doesn't work, it may be necessary to go as far back as the cutting studio.

Once the mother tester has given his okay, the mother goes to production control to be made into a stamper. It is played through completely after every sixth stamper is made (the stamper's life-span is also limited) to make sure that no damage has occurred along the way. The stamper is processed much the same way as the mother but takes less time in the plating cycle and has a thinner nickel coating. Once stampers have been made for both sides of the record, they are positioned facing each other on the record press to achieve a waffle-iron effect on the "batter," polyvinyl chloride. PVC, which originates in a clear granular or powdered form, is shipped in bulk loads to the plant, where it is pumped through a silo, a blender, and then to a "closed-tube" system to avoid any chance of contamination. It is then combined with other materials, including chemical stabilizers—for stiffening and heat tolerance—and carbon black, which gives records their characteristic appearance. Black is used for a number of reasons: It makes track location easier, covers cosmetic defects, and—significantly—costs about half of what other colors do.

What about adding antistatic agents and extenders? (An extender is a clay-type filler that is compatible with, but less expensive than, vinyl and is often the source of surface noise.) Capitol's response: "Our records are 99 per cent pure vinylite [stabilizers mak-
ing up less than 1 per cent of the vinyl]. We don't add extenders because they hurt the quality of the product. As for antistatic agents, some have been tried, but they've never proven 100 per cent effective. We feel the added cost doesn't warrant it."

To get back to our "batter," the PVC and any additional ingredients are loaded into an extruder—which looks something like a meat grinder—where they are heated for softening and, in a matter of seconds, they reach the press in biscuit form, ready for stamping.

The pressing itself is accomplished by a hydraulic air and water system controlled through air-operated valves and a heating-and-cooling process. The stamper dies are steam-heated to 350 degrees to allow the PVC to flow into every groove. Then the PVC biscuits, approximately 2 by 3 by 1 inches in size, are preheated to 300 degrees and inserted into the press [7], either manually or automatically. Through compres-

sion molding and steam injection, a flat record is formed in approximately 30 seconds under a pressure of 60 tons per square inch. Just before the press opens, cold water is pumped in to chill the die to 95–100 degrees, making the finished disc rigid and easier to remove. Labels are applied and the holes punched during pressing. Flash, or excess vinyl, is trimmed off after the record has come off the press and been inspected visually. A seven-inch circular punch trims 45s in one go, while a high-speed edge trimmer eliminates the excess on LPs [8]. The record then drops to a spindle and is transferred to the testing areas. Here it is inspected for bad labels, scratches, pits, dirt, rough edges—anything that might detract from its physical appearance. Next it goes to quality control, where approximately 10% of the day's total production is inspected for master numbers, sequence and number of songs, and again for surface blemishes. One disc per box of twenty-five is then weighed, checked for defects that may have occurred in pressing, and played for surface noise check [9].

If either aural or visual examination reveals a problem, a "stop order" is written and the stampers replaced before any further production takes place. If not, the record is inserted into a white bleached inner sleeve. When I asked about using plastic-lined sleeves as they do in Europe, I was told that the cost of five cents more per sleeve was the reason we don't see them often in this country.

The album cover, inserts (posters, etc.), record, and inner sleeves are collated, and the package proceeds via conveyor belt first to a plastic shrink-wrap area and then to a 300-degree tunnel where the excess wrap (about 1/2-inch all the way around) is shrunk to the final dimensions.

The albums are then packed, twenty-five to a carton, and delivered to the shipping department for their journey to various distribution centers around the country. The total time elapsed in the pressing plant varies greatly, assuming normal scheduling, six to eight weeks for a forecasted million-seller; for a projected 300,000, three to four weeks. However, if an album has been held up in the recording stage and is long overdue, as little as twenty-four hours has been known to elapse from lacquer to shipping dock!

What with all the product that is released these days and the tight playlists, there are a great many LPs that never get beyond the racks in the record stores. So what about recycling all that unsold vinyl? According to one plant manager at Capitol, "Almost every company uses a certain percentage of remilled materials—we use maybe 20 or 30 percent." The process? "The labels are removed with a wetting agent to penetrate the paper so it comes off easier. Afterward, the material is ground up, delivered to the press, and then heated."

No one will say how widespread this practice is. But there are frequent cries that quality is "going down the drain" and that records are "too high-priced for what you get." Nonetheless, sales are healthier than ever and will continue to increase; only the audiences will change. For if you like the artist, it's the only game in town.
Fender Super Twin Reverb Amplifier. The Fender Twin Reverb has long been a favorite of guitarists in the industry due to its durability and clean, accurate sound reproduction. In an effort to gild the lily, Fender has announced the release of its new Super Twin Reverb, which adds distortion controls, a five-band equalizer, a presence control, and many pounds to its predecessor. (The new amp weighs close to 100 pounds. Fortunately, it comes with a set of casters.) Front panel controls include volume, which when pulled out activates a BRIGHT switch, TREBLE, MIDDLE, BASS, DISTORTION, OUTPUT FOR MASTER VOLUME control—and a five-band equalizer. The usual two inputs and pilot light appear to the extreme left of the front panel next to the AC (power) and standby switches, both of which have been conveniently moved from the back of the amp. Located on the back panel is the LINE/RECORDING jack (which will feed a PA system, tape recorder, or direct box in a recording studio). HUM BALANCE, an accessory AC outlet (250 watts maximum), and a three-position ground switch.

The Equalization and Harmonic Balance section is composed of separate controls for 2,300 Hz, 1,250 Hz, 485 Hz, 235 Hz, and 100 Hz. It works extremely well and cleanly and can be switched in or out with a supplied footswitch. PRESENCE comes in handy when you thought you had your sound just right but suddenly can’t hear it over the rest of the band. The equalizer footswitch also houses an on/off distortion switch and a switch labeled DST for volume boost when distortion is engaged. A second footswitch is supplied to control reverbération. Footswitch and AC cables are heavy-duty and should last a long time, as should their respective connectors to the amp. Even the RCA plugs feeding the reverb spring to the electronics are housed in heavy plastic.

We field-tested the Super Twin with guitarist John Stowell, who subsequently decided to use it on his forthcoming LP for Inner City. The sound was clean and he was able to get what he wanted. The variety of sounds available—what with the five-band equalizer, the distortion controls, etc.—is an obvious plus, as is having 180 watts coming out of an amplifier of that size. As we were hauling it into the studio, Stowell remarked that the case left something to be desired. Apparently the “pre-CBS” Fender amps used heavy plywood for the case panels that run lengthwise across the back of the amp. The Super Twin uses thin composition board instead. This may have kept it from weighing over 100 pounds, but it seems scant protection for the speakers and all those expensive vacuum tubes.

Overall, this is a very good instrument. Personally, I’m not convinced that it has the warmth of earlier Fender amps, but it’s a versatile, powerful, and well-built tool. Retail price is $745.

Shure Model 50 AC Telephone Acoustic Coupler. Occasionally, a record producer will call the studio to check out how the rough mixes sound. Or the artist may call to see how the edit went. One way to appease their curiosity is to hold the phone up to the speaker and shush everyone who comes into the room. What the producer hears is an uneven stereo balance, room ambience, and people tip-toeing around shushing each other. Add to that the band tuning up in the studio, the delivery boy’s arrival with lunch, and the bass player’s sudden coughing attack.

In a spectacular stroke of beneficence, Shure has provided a way to wipe out all those little annoyances with the 50 AC Acoustic Coupler: a small speaker, cased in molded rubber, with a chord that attaches to the output of your cassette recorder (or whatever you adapt it for). The speaker fits perfectly over the telephone mouthpiece and can be strapped onto the handset so that you needn’t hold it there. Frequency response is designed to match that of the microphone in your telephone. The casing is sturdy, and the coupler weighs all of 4 ounces.

Now the producer won’t panic when he hears a noisy playback. And, when you’ve been up all night dictating the Great American Novel into your cassette machine, you can play it back to your brother in Minneapolis while you go back to sleep. Whatever use you find for the 50 AC, it’ll do the job well and costs only $28.50.

Petillo Model 20 Guitar Pickup. Petillo is a small family-run company that until recently was known only for its handmade guitars. Work with James Taylor on guitar pickups and with jazz giant Tal Farlow on a new guitar has led to several new acoustic pickups, one of which is the Model 20. It’s about the size of a quarter, and is enclosed in a mother-of-pearl shell. The lead wire terminates in a female mini-connector, which can be adapted to a standard guitar cable. It uses no battery or preamplifier and is mounted just behind the bridge with pressure-sensitive tape (supplied). The sound is clean and even, and the reproduction good. As with other pickups of this type, it is sensitive to other noises coming from the guitar, such as string sliding and thumps.

The Model 20 is simple to use, and although I’ve never been a fan of doublesided tape to hold a pickup on a guitar.
its $45 price tag puts it in a different category from the more elaborate Polytone or D'Armond pickups, both of which attach with a little more security. Its size precludes any danger of its getting in the player's way.

CIRCLE 123 ON READER-SERVICE CARD

Altec Model 19 Speaker System. At the studio where I spend all my days and some of my nights, we monitor commercial recordings on Altec 604s. So when the 19s came out, I had to hear them. We brought a pair to the studio to compare them A/B style with the 604s. After somehow managing to get them up the stairs (they measure 21 inches deep by 30 inches wide by 39 inches high) we gave them a pink noise test, which involves playing back random noise through the speaker and measuring the frequency response with a calibrated microphone. The curve showed a fairly flat response, which is to say there were no peaks or dips that might significantly color the sound. Overall, the sound was very pleasing although somewhat on the bright side.

Originally designed for high-end home audiophile use, the 19s will be marketed for professional recording as well. I found them a bit overwhelming as control-room monitors, but then I'm used to my Acoustic-Voiced 604s. Rock, jazz, and classical sounded equally good, indicating that the 19s make an accurate all-round system.

The new element here is the 802 8G driver, which when combined with the standard 15-inch woofer (416 8B) and 811 B horn yields a very high quality speaker. The Dual Bank Eq. Crossover permits some tuning of the system to suit your particular listening conditions. Connections from the amplifier are located under the cabinet. There has never been an ideal or standard studio monitor—there probably never will be. The Model 19 isn't one either, but it is quite a nice sounding speaker, and I'd love to have a pair at home. Retail price is about $660 per unit.

CIRCLE 124 ON READER-SERVICE CARD

Barcus Berry Model 1336 Mixer. Barcus Berry, long known for its musical instrument pickups and more recently for its stage amplifiers, enters the PA mixer arena with Models 1334 and 1336. Designed to fill the needs of a low-cost PA setup, the 1336 is versatile and well put together. Each of the six inputs—three for magnetic or acoustic-instrument pickups, three for high-impedance microphones—has the following set of controls: BASS and TREBLE (offering 10 and 20 dB of boost or cut, respectively), REVERB/EFFECTS, and VOLUME. Separate LEDs for each indicate overload.

The output section has two more LEDs for battery supply status and level overload, a low-cut (100 Hz) filter, REVERB (return), MONITOR (send), and MASTER VOLUME output. Standard 1/4-inch phone jacks accommodate inputs on the front of the mixer; the back-panel jacks include MAIN and MONITOR output (each fed to separate amplifiers), and SEND HI, SEND LOW, REVERB for patching in external equalizers, tape delays, or whatever. IN and OUT coupling jacks permit attaching to other 1336 mixers for more input capability, and a jack marked FS is provided for a footswitch (not supplied) to control reverb externally.

The bass and treble controls work fine and, in addition to being wide-range tone controls, can be very handy in controlling feedback. The inclusion of a low-cut filter and LEDs for overload is a sensible move. All pots operate smoothly and are virtually free of noise. Connections have been made for most standard external connections. Perhaps the most bothersome feature is the fact that the master monitor control has no separate volume pots to feed it. It's nice to be able to feed your monitor system with a different overall level than is fed to the room, but that's all you can do—you're locked into the PA mix. You may want the audience to hear the lead guitar louder than anything else, but your primary concern in monitoring should be the rhythm section. The 1336 is a good, flexible mixer and unquestionably worth the money, but I'd have been willing to pay the extra for a little more freedom of choice. Frequency response of the 1336 is said to be within 3 dB from 100 Hz to 25 kHz, signal-to-noise ratio is 83 dB, and the mixer uses four 9-volt cells. It weighs only 5 pounds—a definite advantage—and measures about 12 by 9 inches. Suggested list price is under $160.

CIRCLE 125 ON READER-SERVICE CARD

FRED MILLER

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What’s Out
In Semipro Consoles
by John Woram

Tapco Model 6000R
This is a six-in/one-out mixer with built-in reverberation. Each input has a rotary gain control and a two-section equalizer, offering ±15 dB bass and treble control. Above the equalizer section EFFECTS controls the signal fed to the reverberation unit’s input. Patch points in the rear panel allow the effects section to be used in conjunction with other external signal processing devices, with or without the reverb.

All inputs and outputs are 1/4-inch phone jacks. Three-pin professional-type microphone jacks may be specified as an option. Price of the 6000R is $365.

Teac Model 2 Audio Mixer
A surprising amount of flexibility has been packed into this six-in/four-out board, with each input controlling either a microphone or line-level signal, depending on the position of an input-selector switch. Above each input slide fader is a series of four pushbuttons, a rotary potentiometer, and high- and low-frequency cutoff switches. The pushbuttons route the input signal to any combination of outputs, while the potentiometer allows panning between odd- and even-numbered outputs. The master fader controls all four output levels. The Model 2 sells for approximately $325.

Quantum QM-8A
Here is another four-out console, this one with eight inputs. In addition to the basic input/output control functions, the Quantum Audio 8A features an 8-track monitor system, talkback and headphone mixing facilities and echo send/return controls. Professional three-pin...
Tangent 3216

connectors are located on the back.

A two-section equalizer offers high- or low-frequency cut or boost of up to 12 dB. Equalization is switchable between 3 and 10 kHz in the highs and 50 and 200 Hz in the lows. The unit sells for $2,695, with an optional 104-point patch bay costing $749.

CIRCLE 128 ON READER-SERVICE CARD

Sound Workshop 1280B

This versatile twelve-in/eight-out board has a three-band equalizer that offers up to 15 dB of shelving equalization at 100 Hz and 12 kHz, and ± 15 dB of peaking equalization at 3.7 kHz. Output levels are indicated by a two-color/three-LED readout on each of the eight channels, and a mute switch is included on each input channel. Back-panel connections are three-pin jacks for the balanced microphone inputs and 1/4-inch phone jacks or RCA pin jacks elsewhere.

Options available include “Super EQ,” featuring three-band equalization with five selectable center frequencies on each band (all are rated at ± 15 dB), and an 8-track meter bridge that fits across the top of the console and has eight internally lit VU meters (cost is $850).

The basic 1280B retails for $3,200; with “Super EQ” on eight of the twelve inputs, the price is $4,000. A twelve-input expander costs $2,500.

CIRCLE 129 ON READER-SERVICE CARD

Tangent 3216

The Tangent model is 16-in/16-out with ± 15 dB three-band parametric equalization on each channel. There are two cue lines for headphone monitoring, and each of the two echo-send lines provides a two-position switch offering pre- or post-fader echo send. A phase reversal switch is also included in each channel, and the board is equipped with phantom powering. A rotary potentiometer permits panning between odd and even channels, and recording levels are indicated by means of a vertical row of seven LEDs. The 3216 sells for $7,950. Options include 24- and 32-channel mainframes, and a 156-point patch bay.

CIRCLE 130 ON READER-SERVICE CARD

Allen and Heath Syncon Series

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Linda Ronstadt


With the platinum sales success of "Heart like a Wheel" three years ago, Linda Ronstadt became the most influential female vocalist in Seventies pop and Peter Asher joined Richard Perry and Arif Mardin in becoming one of the decade's three most sought-after producers. Today, that album still stands as the definitive LA recording. Aurally impeccable, it embodies the old-time Hollywood ideal of a "class" product with big box-office appeal, due to its brilliant mating of star, material, and production. Ronstadt's honeyed soprano with its throbbing edge and sensual pliability was perfectly suited to the material. She handled folk, country, and even r&b with equally stunning facility, displaying for the first time in her career her full range and dynamic control.

The time was also right. Her voice was more lyrical and technically assured than Carole King's, less theatrical than Streisand's. And her approach to album-making conformed to Hollywood's long-time self-image as cultural melting pot and dream factory: She was the natural-born culture heroine—the Arizona-bred Miss America of pop. Her success opened the way for a whole school of distressed women singers like Emmylou Harris, Jennifer Warnes, and, recently, Karla Bonoff (see review on page 151).

The next two albums, "Prisoner in Disguise" and "Hasten Down the Wind," duplicated the formula, while trying to expand it. They were somewhat weakened by the inclusion of songs that were beyond the singer's emotional reach. Ronstadt was only partially successful in coping with the momentous r&b of Heat Wave, and her flings with reggae came off as pathetically brazen attempts to be "with it." Yet each LP offered at least two pop masterpieces, and like "Heart" each featured brilliant arrangements and performances by Andrew Gold, her band's lead guitarist and musical director who subsequently embarked on a promising solo career (see "Breakaway," February). Gold brought a remarkably eclectic ear to Ronstadt's versions of "oldies," reprising the salient virtues of the original arrangements while giving the songs a wholly contemporary depth, precision, and clarity.

With "Simple Dreams," Ronstadt tries to break out of the magic formula and falls flat on her face. Some of the cuts—most notably Warren Zevon's Poor Poor Pitiful Me and Carmelita—are spectacularly wrong for her. His autobiographical slices of LA lowlife are depicted in the sardonic, jaundiced language of a Ross MacDonald character; yet Ronstadt performs them straight, with the usual air of heartbroken valor. So when she sings about a man who "really worked me over good/Just like Jesse James" without a trace of humor, she suggests a Janis Joplin-like infatuation with degradation wholly inappropriate to the context. These perform-

Linda Ronstadt

Ronstadt—the missing link is Andrew Gold

A lot of people badmouth Chet Atkins as being reactionary, but I'll tell you this: There is more subtle talent in his hands and mind than most of country music's new breed will ever be able to appreciate. Atkins was the creative force of Elvis Presley's Heartbreak Hotel, one of rock & roll's most glorious moments. I only shudder to think what such a record would sound like at the mercy of most modern Nashville producers. ("Let's have Charlie overdub some harmonica, then we'll bring the strings up a few db.s.")

This album, like most of Chet's stuff, isn't the sort of thing that hits you across the brows: no loud jukebox hicks, no growling rhythm. But it's fine music. His


Karla Bonoff's songs are already part of LA's pop mythology. Her neatly drawn meditations on the conflicts between personal freedom and romantic tradition may center around the oldest of themes.

Chet Atkins—talent of the hands and mind

work is rarely forced or arty, and virtuosity is never out of context. The material ranges in source from James Taylor to Jerry Reed to Cole Porter. But the songs have been chosen simply because Atkins wanted to record them, not because they're likely to ravish the charts. How much more interesting, how much better than being pressed to visit Ol' Waylon's Luckenbach.

Atkins—talent of the hands and mind

Country music is not in essence an inferior music (there are Lefty Frizzell records that make the Rolling Stones sound like the Osmonds), but stuff like this is almost a parody of itself. Moe Bandy is one of the greatest country artists alive today. He should be making great music, not running lightly in Lynn Anderson's shadow.

Karla Bonoff—writer/singer confidence

his country cliches: Cowboys Ain't Supposed To Cry (how far is this sort of thing from Tears of a Clown?), She Just Loved the Cheatin' Out of Me, All I Can Handle at Home.


Moe Bandy came to prominence early in 1974 with a record called I Just Started Hatin' Cheatin' Songs Today, a hard-edged tale of whiskey and wrath. It became a hit at a time when country music was going through one of its most severe sugar-and-poignancy phases. Here, many thought, is the savior, the man who will whip-whip country back to life. And the savior fought valiantly; more records like the glorious first one followed.

Now I sit here listening to this album, and must admit to myself that it is not the stuff of saviors. Why are the Jordanaires here, drowning every cut in sterile, cloying cuteness? Why are the songs as unimaginative and full of stale metaphors as I Just Started Hatin' Cheatin' Songs Today was fresh and raging? The titles read like a list of high-school po-
several listens, one becomes more aware of the difference in stance than any structural resemblances.

Someone to Lay down Beside Me, which opens the album, serves as a graphic demonstration: The piano arrangement is nearly identical to Ronstadt's version, but a rougher, sparer feel to the ensemble work, highlighted by Waddy's alternately tense and lyrical electric guitar, combines with Bonoff's cooler, more resigned delivery of the lyric to carry the song into new territory. What became a dramatic tour de force for Ronstadt is scaled to more human dimensions here; if Ronstadt's interpretation is genuinely thrilling, Bonoff's is more disturbing, for it preserves the bittersweet intelligence and underlying erotic tension of the lyric more effectively. She lacks Ronstadt's sweeping vocal power, thus her stylized phrasing and basic melodic sense offset those interpretations handsomely.

"Karla Bonoff" does offer more conventional romantic moments (Isn't It Always Love and If He's Ever Near), as well as folk-flavored songs like Rose in the Garden and Falling Star. But if point mass Bonoff's link with longtime friend and former performing partner, Wendy Waldman. But the album's best songs describe an emerging feminine consciousness with a clarity and precision that is matched by the writer's confidence as a singer. S.S.

Eric Carmen: Boats Against the Current. Eric Carmen, producer, Arista AB-4214, $7.98. Tape: 3S01 4211. $7.98. Tape: 8S01 4214, $7.98.

The title of his second solo album notwithstanding, Eric Carmen seems to be drifting. Several songs on "Boats Against the Current" are about coming of age and discovering one's true identity, but the former leader of the Raspberries has miles to go before he can afford to drift. His talents as a singer, musician, and melodist have yet to coalesce in a distinctive style other than pastiche. So here we have big Barry Manilow ballads, a Beach Boys imitation, and a Rod Stewart vocal over a Rolling Stones rhythm track.

If Carmen were still able to pay homage to his influences with Raspberries' humor and ebullience, this album would not be so disappointing. But it's a ponderous effort that never cracks a smile. The vocals often gasp and strain (before recording some of them, he screamed his lungs out to roughen up his voice), and the overbearing orchestration suggest that Carmen, producing himself for the first time here, doesn't know how to display his songs to their best advantage. Many of these arrangements aren't foils, they're fudge. Run Away, for instance, probably the most beautiful tune on the record, is mucked up by elaborate pianistic interludes which one forgets what would otherwise be a most memorable melody.

Still, he remains a superb tunesmith. The refrain of Run Away, nowhere to hide, and Love Is All That Matters are lovely. If only, having written a good song, he had a better notion of what to do with it. K.E.


Big-time record reviewers, like yours truly, receive with their bootie piles of other stuff like biographies and photos. According to the Warner biography, Cher is "recognized as the personality who has the most influence on the dressing style of the young women in America. . . ." Which, come to think of it, goes a long way toward explaining why so many high school girls are wearing Bob Mackie knockoffs this season.

The biography does not credit Cher with influencing anybody's singing style. That's true but it's surprising for a vocalist who has been so visible for so long. There must be a reason.

After a brief flirtation with artsiness by way of a fine if ignored collaboration with Jimmy Webb, Cher is back with the producer responsible for such hits as Gypsies, Tramps & Thieves, Dark Lady, and Half-Breed. While "Cherished" is certainly more commercial than her last couple of albums, much of it isn't the kind of thing that anyone involved should take any pride in. Most of Side 2 sounds as though it were written, arranged, recorded, and manufactured within a six-hour span.

The first side holds some interest, however. There's a powerful story-song, Pirate, which is cleverly arranged in the style of her earlier hits: a strong-ballad. He Was Beautiful, and a peek inside the disc biz called She Loves To Hear The Music by Peter Allen and Carole Bayer Sager. The first two will probably appear in Cher's next Greatest Hits album. If there is one, you might as well wait for it. T.E.

David Allan Coe: Tattoo. Ron Bledsoe & David Allan Coe, producers, Columbia PC 34870, $6.98. Tape: $5.34870. $8.34870. $7.98.

You either love or hate David Allan Coe for his excesses of word and voice. I love all those manic things in his records: the forced melodrama, the egomania, the stark arrangements, the dedication to archetypes, the crescendos out of nowhere.

His own liner notes set the tone: "And to those that see me, let them tell their children they have witnessed a miracle." Megalomania becomes schizophrenia: the songs of the album alternate between hard, old-line country stuff -- such as Play Me a Sad Song and Daddy Was a God Fearin' Man -- and hallucinations seen through a wildman's eyes, like the pompous Maria Is a Mystery.

Coe is a more interesting singer and writer than most, and his audacity is as much to credit as his talents. That audacity and that talent are what make "Tattoo" infinitely better than the current releases of a hundred other, more popular country artists.

When the medicine show again becomes part of American culture, David Allan Coe will be its prince: baring his tattoos, speaking in tongues, selling Coe's Elixer, and singing them good ole country songs, sideshow-style. N.T.


Changing personnel without skipping a beat, the Doobie Brothers have been dependable and potent rockers for so long that they're probably bored stiff by what they do best: "Livin' on the Fault Line" is an understandable and interesting change of pace for the hardy hit-makers, but it's an unexciting album. Not that there's anything wrong with mellowness, but in the Doobies there are certainly entitled to add strings and horns if they want to (though surely they could have come up with less hackneyed arrangements). But neither Michael McDonald nor Patrick Simmons is accomplished enough as a songwriter to command attention when you're simply sitting and listening and not on your feet dancing. Their vague though pleasant melodies tend to blur into each other.

Continued on page 156
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CIRCLE 11 ON READER-SERVICE CARD
The Dwight Twilley Band: British Rockabilly Comes of Age
by Ken Emerson

"We're just a natural progression," Dwight Twilley declares. "From Elvis to the Beatles to Twilley." But in fact the Oklahoma band whose second album, "Twilley Don't Mind," has recently been released evolved ass-backwards—from Beatlemaniacs into rockabillies.

Twilley and fellow Tulsa Phil Seymour met eight years ago at a matinee showing of A Hard Day's Night, and their mutual infatuation with the British beat made them fast friends. Soon they were playing together (Twilley on guitar and piano, Seymour on drums and bass) and even recording in a makeshift studio, disguising their drawls with English accents. It wasn't until they ran into Ray Harris, a producer who had been present at the creation, so to speak, of rock & roll (he had worked at the Sun label with Jerry Lee Lewis, Roy Orbison and the like), that they learned that rock hadn't begun with the Beatles. "Y'all sing like pussies!" Twilley remembers him shouting. "Throw bricks at cars! Tear down telephone poles! Get funky!" They didn't turn into hoodlums, but they did Twilit), and Seymour—"kids cutting loose in the studio"—turn on to Elvis. "Ray just pounded that Elvis/Memphis-rock & roll scene into our heads. There we were in the middle of the country, freaked out by the English thing and at the same time getting pulled into the very cradle of rock & roll. It put in the rough edges that we needed, and then we really had both sides. Which has made some people label our music 'British rockabilly.'" "Twilley Don't Mind" and last year's "Sincerely," the band's debut album, burst with the exuberance of kids cutting loose in the studio and discovering the tricks of their idols' trade: the slapback echo of old Sun records, the fat Beatleish sound of nine overdubbed guitars. One moment Twilley is hiccupping to beat Buddy Holly, the next he and Seymour are harmonizing like the Fab Four. Twilley is "looking for the magic," as one of his songs goes, and the joyful passion of his search suffuses his music, which never sounds coy or calculated the way Badfinger's and the Raspberries' emulations of the Beatles often did. They still play the majority of instruments themselves, and despite the laborious overdubbing, their sound is spontaneous because they are perfectly at ease in the studio. "It's just such a natural thing to us," Twilley says. "It's like brushing our teeth—there's no effort at all."

If Twilley's music seems anachronistic, it's partly because his devotion to melody is out of step with the generally tuneless rhythms of contemporary disco and hard and/or punk rock. Almost every song he writes has a hook you can hum forever, and unlike those of the run-of-the-mill Top 40, his catchy choruses gladden rather than nag. Moreover, his musical nostalgia dovetails with his lyrics, many of which are couched in the past tense and recall youthful love affairs. The dreamy romanticism and regret of such songs is balanced by lusty rockers, and Twilley's sentimentality is held in check by Seymour's punching drums, which are mixed way up so that they virtually duet with the lead guitar or keyboard.

"Twilley Don't Mind" pounds harder than "Sincerely," exchanging some of its predecessor's bovish charm for a mature maturity. Due to contractual difficulties (their original label, Shelter, has dwindled from a record company to a production outfit), the band has had more than enough time to hone its craft, and another album is in the can. Twilley is reluctant to release that one, fearing it may sound dated, but his band's music is far too vibrant ever to sound old hat.

The Dwight Twilley Band: Twilley Don't Mind. Bob Schaper and Oister, producers. Arista AB 4140, $7.98. Tape. £5.98.
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Continued from page 152
and the uniform textures make it harder still to tell the tunes apart: McDonald’s electric piano (which dominates most of the tracks) and the smoky vocals are as unvarying as the tempos. As a result the record fades into the background—a far cry from the Doobies of the past.

It’s admirable, however, when so established a group jettisons a successful formula and experiments with new ideas. And one of these, the title song, pays off: A fleet foray into quasi-jazz, Livin’ on the Fault Line is enlivened by guest star Vic Feldman’s vibes and some galvanizing guitar work. If the Doobies want to strike out in a new direction, they should follow this up and forget about easy listening.

K.E.

The Grateful Dead: Terrapin Station.
Keith Olsen, producer. Arista AL 7001. $7.98. Tape: 8301 7001, 8301 7001. $7.98.

If a head count were to be taken a few months after this album’s release, I’d wager the Grateful Dead constituency would show some shifts in membership. Not that the ranks would be thinned out any by “Terrapin Station.” Producer Keith Olsen has enforced a new economy and radio-consciousness, suggesting that the Bay Area psychedelic patriarchs also could prove appealing to martini drinkers. But his cast of supporting musicians—among them Tom Scott and orchestrator Paul Buckmaster—coupled with the sleek, spacious production finish are inevitably going to strike some of the more devout Dead heads as rock heresy. It’s as if Max von Sydow turned up in a Ross Hunter movie.

Less doctrinaire listeners probably won’t care, though. If Passenger sounds a little too close to Olsen’s first major project, Fleetwood Mac, and a new version of Martha and the Vandellas’ Dancing in the Streets verges on disco, there is still enough loping, cyclical surrealism to remind us where the band started out. On the opening track, Estimated Prophet, the producer’s hand is lightened to mere cosmetic detail: The arrangement hews to the sort of slow-rolling syncopation and slightly drowsy melodic development central to the band’s records since the late ’60s.

For long-standing fans, though, the real test will be the title piece, a conceptual suite that takes up the second side of the album. Terrapin Station Part I begins encouragingly enough with guitarist Jerry Garcia (once the band’s focal point but increasingly withdrawn from the vocal solo work) on Lady with a Fan, a typically convoluted Garcia melody with some nice contrapuntal piano and guitar. As the suite unravels, however, Olsen adds the Martyn Ford Orchestra, with its Paul Buckmaster string and horn charts, and the English Chorale to develop the main theme, which surfaces midway through and reprises at the end. Somehow, the symphonic scale underscores the motif’s similarity to Jethro Tull’s Aqualung, providing yet another note of incongruity.

“Terrapin Station” thus emerges as the most accessible Dead album since “American Beauty.” Yet with its disparate pop styles, it seriously challenges the group’s earlier sense of their own mythology. Once electric folk eclectics, the Dead now sound more like pop eclectics, a shift that draws them closer to the mid-’70s mainstream than either they or their followers might have expected in the brave days of the Haight.

s.s.


Freddie King was perhaps the greatest of the last generation of electric blues guitarists, combining the roots feel of Muddy Waters with the flow of B. B. King (no relation). He also was a fine singer, with the power and drive of the Kansas City shouters and the flexibility of the soul artists. King stood at the crossroads of many styles, and he made them all his own.

Despite the title, this album is not a retrospective of King’s music; but a selection from four RSO recording sessions (1974–76) and one Texas concert. Most of the participating musicians are British blues addicts, guitarist Eric Clapton and drummer Steve Ferrone among them.
T'Ain't Nobody's Buisness If I Do, perhaps the album's high spot and one of the great pop/blues tunes, is a perfect vehicle for the Kansas City style. Both Jimmy Rushing and Jimmy Witherspoon have recorded it. King does a masterfully job with it, taking the slower and more effective Witherspoon pace and backing it with organ, piano, and rhythm. Sweet Home Chicago is a heavy 1950s Chicago blues-band number with some magnificent guitar solos in the late blues fashion that comes from T-Bone Walker via B. B. King. TV Mama, which was recorded by Big Joe Turner during his rock & roll period, gets a beautiful eight to the bar treatment that shows what early rock was like without the camp. The long (almost nine minutes) Gambling Woman Blues becomes an excuse for a vocal, with King using the immense dynamic range that the later soul/blues singers borrowed from the church. In the punchy Pack It Up, his tight, growling, almost choking delivery is at times reminiscent of a Bubber Miley trumpet solo. Shake Your Bootie—an easy, strutting, sexy number over a loose funky walking bass—and Woman Across the River, with its constantly shifting rhythms, remind us where funk came from.

The album is a good sampling, though nowhere near being a definitive memorial to an important product of a time when blues, r&b, and soul all met. J.S.R.

Patti LaBelle: David Rubinson, producer. Epic PE 34847, $7.98. Tape: PEA 34847, $7.98.

Patti LaBelle has more style than voice, and she's at her best in uptempo numbers. Her getdown talents are, for once, more than adequately matched by her backing. Her tough cookie singing on Don't Me is supported by many of the more joyous qualities of r&b's past thirty years: wowie guitar, lovely stomping piano, fine brass riffs out of the Wynton Harris era, and even some swing clarinet and soprano saxophone. It's an authentic celebration of the life force—or something—to which the judicious critic can respond only by deserting the typewriter to dance along.

Funky Music has the lift of a trampoline. It's the standard funk number and a superior getdown, with its sheer craftsmanship and constant small touches also making it a joy to listen to. You Can't Judge a Book by the Cover mixes classic Fats Domino-type acoustic piano, more fine brass, shouting backup singers, marvelous blues harmonica, and Patti wailing heavy.

The ballads are another story. In You Are My Friend, her voice, which has edge but not much bottom, is not enough to carry her intelligent and dramatic interpretation. But that cut is better than

Continued on page 159
BY TODD EVERETT


The Midwest’s answer to Boston—with snappy playing, top-notch lead and harmony singing, and imaginative songs rooted in the late Sixties—is here with their second album already. Even if these guys didn’t try so hard to look peculiar, they’d still have a strong shot at becoming stars.


On the one hand, we can hardly expect Donovan to continue singing Mellow Yellow. Hurdy Gurdy Man, and Young Girl Blues for the rest of his life—though it would be nice. On the other hand, it’s still all but impossible to explain to current generations that Donovan used to be really good. Could it be that he was a man of the time and that the time has passed? There is some worthwhile listening here: Brave New World and Maya’s Dance.


The Munich-based engineer/producer/keyboard whiz (sounds like a Teutonic Todd Rundgren, doesn’t he?) plays for disco dancing. Moroder plays all instruments on the album, and they’re all keyboards. Warning: The title track and I’m Left, You’re Right, She’s Gone aren’t the songs you may think they are.


Scruggs, his three sons, and various friends play the kind of music that the Nitty Gritty Dirt Band, the Byrds, and dozens of other have been trying to do right for years. Their eleven—so far—albums are consistently fine, and “Strike Anywhere” is typical. Included are a couple of nifty instrumentals, a few more than passable originals, and glittering remakes of some oldies. An uptempo You’re Really Got a Hold on Me positively sparkles. If you want country rock, this is as close as you’re going to get.


Greg Evigan and Paul Shaffer are producer/song publisher Don Kirshner’s latest stab at creating a new Monkees. They’re basically teen idols who do what they’re told, don’t talk back, and in return are given some hot material to record. Most of that hot material is published by Don Kirshner. Amazing coincidence. eh? There’s quite a range of rock to pop/rock here, making the LP at least suitable as a souvenir for fans of the TV show. He’s a Rebel is mixed down to mono, but anybody who understands the inside reason is probably too old for this album.


Resurfacing after a bout with pills and such, Thomas has a hit record in Don’t Worry. Baby despite his use of the wrong (i.e. Tokens-composed) lyrics to the vintage Beach Boys tune. He relays a bit too much on his producer for new songs, but the old voice is still in there throbbing. Overall, though, this album is only for the most devoted of fans; others should look first for “Billy Joe Thomas” in cutout bins.


Titus is probably best known for her composition with Eric Kaz called Love Has No Pride. There’s a version of that here. Other tunes, performed in a voice that sounds like a cross between Maria Muldaur and Carly Simon, include Kansas City, Miss Otis Regrets, and the Titus/Hirth Martinez The Night You Took Me to Barbados in My Dreams. Have this album on your turntable constantly, and no one will ever question your good taste. Or, for that matter, your trendiness.


This album pretty well exhausts Columbia’s stockpile of songs recorded by Tucker under the expert supervision of Billy Sherrill. (She’s been on MCA for about a year now.) It’s the kind of material that brought Tucker her greatest fame, and it doesn’t look like she’ll be doing anything better for some time. This is not bottom of the barrel by any means. The title cut and David Allan Coe’s I Still Sing the Old Songs rank with her very best.
Since I Don't Have You and Do I Stand a Chance, whose sunrise-over-the-Sierra horns and general portentousness introduce further examples of the worst excesses of the Producer's Revolution. A pity, because buried under the fatty deposits are a couple of lean and sinewy vocals. One whole chorus of Since I Don't Have You, when everybody but the rhythm section is out for coffee or something, is a real, though passing pleasure. Of the ballads, the midtempo Think About You works best. Though it's no more than respectable than the rest because Patti's chest tones lack richness, it's saved by her ability to wail. "Patti LaBelle" simply and successfully blends newer and earlier r&b strengths. It does so most obviously in its mix of classic vocals and horns with tight, driving 1970s funk rhythm lines, but also—especially in Dan Swit Me and You Can't Judge a Book by the Cover—in ways too subtle to disentangle.

Charles Mingus: Three or Four Shades of Blue. İlhan Mimaroğlu, producer. Atlantic SD 1700, S$6.98. Tape: ●● SDC 1700, ● SDT 1700, $7.97.

The volatile career of Charles Mingus, in which cycles have revolved within cycles, seems to be coming out of an unwontedly long, complacent period and moving toward the kind of creative peak that Mingus achieved in the Fifties. "Three or Four Shades of Blue" gleams with the lights and colors that were characteristic of Mingus in his heyday. He is not as exuberant and flamboyant as before, but he exhibits a deeper, possibly even stronger feeling.

The comparison between the vital creative force of the Fifties and the contemporary Mingus is easily made via new versions of two early successes, the gospel-based Better Git Hit in Your Soul and his tribute to Lester Young, Good-bye, Porkpie Hat. The textures are decidedly different from the earthy originals because of the emphasis on the guitars (Larry Coryell and Philip Catherine)—instruments that did not figure prominently in the earlier Mingus. The result is a lighter, less propulsive Git Hit. But Porkpie, a very moving piece originally, becomes even stronger with Catherine's deeply felt acoustic solo, full of Django Reinhardt references, and a lovely singing solo by Mingus on bass.

Charles Mingus—a new kind of creative peak

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CIRCLE 56 ON READER-SERVICE CARD
ROH

BY JOHN STORM ROBERTS

James Brown, producer. Polydor PD 1-6111, $6.98. Tape: • CT 1-6111, • 8T 1-6111, $7.98.

After the obligatory obeisances to the Father of Funk and the Guru of Getdown, what's to say? Ecology has replaced ethnic pride. Summertime is this year's Everybody's Doing It. and "ugh yeah OW sounds much the same in '77 as it did in '67. The mixture as before.

Keni Burke. Keni Burke, producer. Dark Horse DH 3022, $6.98. Tape: • M5 3022, • M8 3022, $7.97.

Keni Burke was a member of those former doo-woppers the Stairsteps. His album has the right ingredients for a real nice listen. but the proportions are all wrong. Too much glaze and too little salt yields all gloss and no flavor.

Eddie Hazel: Game, Dames and Guitar Thangs.
Eddie Clinton and Eddie Hazel, producers. Warner Bros. BS 3058, $6.98. Tape: • M5 3058, • M8 3058, $7.97.

Funkadelic's scarily guitaristic comes off as one of the most serious rock guitarists around on this solo outing. Unfortunately the stoned chantings of the Funkadelic backup singers, Bootsy Collins' bass and all, water down any attempts to break away from the Parliamfunkadelicism.

Millie Jackson: Feelin' Bitchy.
Brad Shapiro & Millie Jackson, producers. Spring SP 1-6715, $6.98. Tape: • CT 1-6715, • 8T 1-6715, $7.98.

The label advises radio stations to listen before programming, because there are Naughty Words on the album. Millie Jackson sings superbly. and the lyrics say only half what other peoples' eyebrow-raising lyrics say, though less coyly. The LP is not only sexy, but sentimental, loving, witty, and —within the limits of r&b—wise.

Michael Henderson: Goin' Places.
Michael Henderson, producer. Buddah BDS 5693, $6.98. Tape: • BDC 5693, • BDT 5693, $7.98.

The man can sing, though he leans too heavily on the sexy falsetto. Trouble is, middle-class polyester soul-like the old Blue Eyes-type pop it's descended from—has to be really well written. Which most of this, save the first cut, just isn't. One song has backup vocals from Roberta Flack, but overall it's still just superior wallpaper.

Rose Royce: In Full Bloom.
Norman Whitfield, producer. Whitfield WH 3074, $6.98. Tape: • M5 3074, • M8 3074, $7.97.

Rose Royce has a good lead singer, Gwen Dickey. Otherwise, it's basically a creation of former Motown producer Norman Whitfield, with every detail of watusspinnin down pat. The foreseeable problem is that producer creations have a tendency to die on the vine around their third recording. while their Svengali goes on to hipper happenings.

Sister Sledge: Together.
Michael Kunze & Sylvester Levay, producers. Cotillion SD 9199, $6.98. Tape: • SDC 9199, • SDT 9199, $7.97.

Silver Convention producers Kunze and Levay have managed to give Sister Sledge a commercial gloss without turning them into Convention-type plastic giveaway souvenirs. The best tracks are Wonder's As and Kathie Sledge's salsa-based Can't Mess Around with Love. The rest throbs with craft and simplicity. and the sound is both tight and free-wheeling.

The Whitney Family: Airways.
Jerry Stein, producer. United Artists UALA 734G, $6.98.

What with Isleys and Staples and Sledges, this has shaped up as R&B Family Month. With the exception of a couple of blah tracks, the Whites are fresh, joyous, and bubbling with the kind of zest that no amount of slick professionalism can replace.

The Staples: Family Tree.
Eugene Record, producer. Warner Bros. BS 3064, $6.98. Tape: • M5 3064, • M8 3064, $7.97.

The Staple Singers were one of the few established black gospel groups to move into r&b and specialize in message songs. Unfortunately, message songs don't bring the heavy gold, so they've taken up hit-hunting, which doesn't suit them. The material here ranges from the fairly sublime in the message-type Family Tree to the family ridiculous in Let's Go to the Disco.

The Whitney Family: Airways.
Jerry Stein, producer. United Artists UALA 734G, $6.98.

What with Isleys and Staples and Sledges, this has shaped up as R&B Family Month. With the exception of a couple of blah tracks, the Whites are fresh, joyous, and bubbling with the kind of zest that no amount of slick professionalism can replace.

The Whiney Family: Airways.
Jerry Stein, producer. United Artists UALA 734G, $6.98.

What with Isleys and Staples and Sledges, this has shaped up as R&B Family Month. With the exception of a couple of blah tracks, the Whites are fresh, joyous, and bubbling with the kind of zest that no amount of slick professionalism can replace.

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Continued from page 159

a working class, repressed-by-parochial-
school minigeneration. Now the quintet
that calls itself the Dead Boys continues
the crusade, declaring that “the only
things we all have in common are Igg)
and volume.”

In recent years Iggy Pop has made sev-
eral attempts to resume his uncertain ca-
reer, with and without the original
Stooges. When reticent superstar David
Bowie took an interest in him—co-
writing, producing, and playing key-
boards in his band—Pop became access-
sible to a larger audience both live and
on record. “Lust for Life” is the duo’s
second collaboration. It retains Iggy’s
notorious disturbed and hypnotic lyrics,
but couples them with a more straight-
forward rock & roll beat. Iggy has ex-
changed the guttural cries of his Stooges
days for boyish, whispery vocals that

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trickle through and complement his band's steady rhythm tracks rather than outshine them.

He still thinks of himself as an outsider, an observer of the decadent scene that he helped to create. In Success, he views commerciality as a two-sided mirror. "Here comes success over my hill, in the last ditch I'll think of you, here comes the zoo." As if playing the part of a Greek chorus, the band (which includes Stiv Bators's talented sons Tony on bass and Hunt on drums), repeats every line of the song. Pop wanders in his haunted landscape, asking for "some weird sin to relax with" in love song to his dead girlfriend. Bowie-composed discofied movements on "Lust for Life" cloak the message, yet even in subtlety, Iggy Pop looms unsettling.

"Young, Loud and Snotty" is as unsubtle, razor-sliced, and sweat-encrusted as the Dead Boys's stage show. Singer Stiv Bators, the chief source of outrage in this Cleveland-bred band, warps his words on record, the way he dissects his body onstage. Lead guitarist Cheetah Chrome relentlessly pushes his instrument like a buzz saw, forcing Bators to howl and spit.

What may bring the Dead Boys to an unsuspecting public outside the cadre of inner-city punks is their thorough grounding in the pop tradition. All This and More sounds like a fairly normal, three-verse-and-chorus number—until one realizes that "do you know how it feels to have sex with the lights on" is the tune's opening line. The Dead Boys are direct and uncompromising. I Need Lunch is not about a trip to the automat, and Sonic Reducer has a plot straight out of the vengeful Carrie. The group won't induce sweet fantasy, but "Young, Loud and Snotty" provides a shocking insight into what yet another repressed minority considers its reality.

T.G.

The Stranglers: IV Rattus Norvegicus.
Martin Rush. producer. A&M SP 4648. $7.98. Tape. • CS 4648, • 8T 4648, $7.98.

Take a dirty, subterranean William Burroughs novel, add a healthy dose of Doors mysticism, and top it off with a Brian Ferry vocal quiver. The result is a hard-to-swallow concoction called the Stranglers, one of the first British punk bands to record for a major label. This LP, their first, actually hit the Top 10 in England last spring, and the group seems to stand a good chance of bridging the American gap between the New Wavers and Sixties nostalgists.

Older than the average British punk lineup, the Stranglers have the ability to elongate their songs, a gift of the Fillmore-era instrumentalists. "IV Rattus Norvegicus" (meaning Norwegian rat, the band's thematic symbol) is far from the auto-crash thumping associated with the punk genre. Dave Greenfield's keyboards hover over the songs like an evil angel, propelling them forward with a continuity nonexistent in the younger groups' guitar-centered covers. Like Roxy Music's Ferry and the late Jim Morrison, singers Hugh Cornwall and Jean Jacques Burnel sound alternately mean and uncertain.

The misogynistic lyrics have enraged many listeners—myself included. The general intention appears to be total intimidation, with woman-hating the obvious first step. How will Americans react to hate-drenched lyrics and skilled instrumental cover? The opening cut, Sometimes, states, "Sometimes I want to slap your face . . . beat you, honey, till you drop." It ought to be easy to reject their message altogether. But beware. You too may find yourself captivated and singing along as if such lines were everyday pleasanties.

T.G.

Sun Ra: Solo Piano. Paul Bley. producer. Improvising Arilis 1A1 37, 38, 50. $6.98.

Sun Ra's reputation as a musical iconoclast and aesthetic visionary stretches back at least as far as the mid-Fifties. Since that time he has led a series of groups that in essence have represented a continuation of the ensemble he founded long ago in Chicago. Yet through it all—the sometimes confused but usually respectful critical reaction, the gigs in tiny uptown bars and Soho lofts (I once played opposite him at an avant-garde festival on a Staten Island ferry boat)—his music has remained as direct and uncluttered by commercial considerations as it was in the beginning.

To the best of my knowledge, this is the first recording of Sun Ra performing.
as a piano soloist. It is a welcome opportunity on a number of counts: First, he simply isn’t heard as often as he should be; second, it provides an opportunity to listen beyond the theatrical overlays and extended horn and percussion improvisations that usually dominate his ensemble performances. Alone at the keyboard, he must give us the essence of his music, the heartbeat that throbs in its center. And he does. Though quite familiar with his work, I was still astonished by the clarity, single-mindedness, and simplicity with which he approaches the musical problems he poses for himself.

Three of the cuts bear familiar Ra-ean space titles: Cosmo Rhythmatic, Romance of Two Planets, and Irregular Galaxy. Two are unexpected interpretations of standards: Sometimes I Feel like a Motherless Child and Jerome Kern’s Yesterdays. The final track is an off-the-wall lyrical ballad titled To a Friend: it is the most rare piece on the album—so lovely and endearing that it may very well threaten Sun Ra’s reputation as a hard-core avant-gardist. (I’m joking, of course.)

I was less impressed by his excursions through Yesterdays and Motherless Child. Like the flinty composer/pianist Thelonious Monk, Sun Ra seems to feel uncomfortable as an interpreter. The demands his muse makes upon him are so extreme that they tend to violate the basic sense of what other writers’ material is all about.

He is much better with his own pieces. The “space” cuts are straight out of his own late-nineteenth-century, polyharmonic, multirhythmic bag. Given more technical adeptness, he might

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Sun Ra—brilliant and provocative
sound like an improvising Scrabbin. But his mechanical dexterity—again, like Monk’s—almost forces him to paint even his most complex musical pictures in shades that can be readily perceived. In places I miss the contrasting rhythmic excitement that his musicians add. (I suppose, though, that I might have said the same thing of Duke Ellington playing in a trio context.) More often I marvel at the brilliant, provocative music coming from a remarkable black American artist who is moving, with vitality and grace, into middle age and who has not yet received the recognition he deserves. D.H.


Since John Coltrane became the perva- sive model for tenor saxophonists, the dark, rugged, voluptuous sounding work of the earlier generation of tenor men has virtually disappeared. So this collection, recorded in the mid and late ’40s (except for a 1954 set by Coleman Hawkins), is an enlightening reminder of the charm, beauty, and drive of the style that preceded Coltrane.

Not all of the sides that Bob Porter has pulled together represent a pinnacle of achievement. John Hardee was a capable but relatively minor follower of the Hawkins and Ben Webster line, and his six selections do little to move out of a basic rhythm-and-blues groove. Hawkins’ seven pieces come from an obscure session on which the mike setup seems casual, the sound (except for Hawkins’ tinny and echoing, and some of the performances have the tentative sound of runthroughs. But Hawkins is indomitable; even under such dire circumstances he creates his own aura, unflappably exploring and inventing.

Webster, on the other hand, has an accommodating setting for his warm furry tone with its unusual blend of power and gentleness. Whether he is swinging gently on “I Surrender, Dear,” or stepping thoughtfully through “Kat’s Fur” or stepping thoughtfully through “Kat’s Fur,” there is an elegance to his lines, giving his playing a commanding distinction. Ike Quebec has some of Webster’s easy fluency and, although he uses a slightly heavier tone, has a sense of lightness that is complemented by Bill De Arango’s light, bright guitar lines.

The fifth saxophonist, Illinois Jacquet, is usually associated with the exhibitionistic, honking style of the Texas branch of the Hawkins-Webster school (headed by Herschel Evans), and that is the manner on display here. He is limited to some degree by that fact that the pieces, like Hardee’s, are essentially r&b riffs. But even so, he shows his ability to generate power and excitement without shitting into the obvious theatrics of his scream-and-honk style. J.S.W.


The pre-emminence of Coleman Hawkins and Ben Webster among the dark-toned tenor saxophonists of the first generation of jazz masters can now be considered a matter of record. Hawkins, the pioneer, not only established the tenor as a jazz instrument, but remained in touch with contemporary jazz developments throughout his career without abandoning any of his hallmarks. Webster, coming in his immediate wake, managed to emerge from Hawkins’ all-encompassing shadow by the sheer power of his own musical personality.

Although their musical paths rarely crossed, Norman Granz brought them together in 1957 and 1959. That first meeting might have been a cutting session, particularly in view of Granz’s fondness for setting saxophonists at each other’s throats. But if there was a challenge involved, both Hawkins and Webster accepted it as an opportunity to show the depth, color, and warmth of their own playing and the subtlety with which each could support and extend another soloist.

The first disc represents the 1957 session and is an absolute masterpiece: two superb players responding to one another brilliantly. Their performances are among the finest either has ever played individually and are unique in their mutual sensivity. Aside from a catchy piece which each could support and extend another soloist. The second disc is a good swinging set of jazz improvisations with Hawkins and Webster joined by a third tenor, Bud Johnson, and by Roy Eldridge on trumpet. Les Spann on guitar, Jimmy Jones on piquano, Jo Jones on drums, and Brown again on bass. It’s the usual solos all around but, although the players are all in good form, this session seems utterly routine in comparison to the heights achieved on the first disc. J.S.W.

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Disciple of James P. Johnson with a sideline of ragtime. Within those parameters, he has always been trying to expand his horizons: finding unlikely ragtime material in a tune such as Cole Porter's 'So in Love,' or getting into the related but relatively unexplored piano novelties of the 1920s.

On this disc, Wellstood makes his boldest, fullest, and most successful effort to broaden his natural base. The very title indicates his estimation of the album as the kind of performance he has always wanted to get on record. You know he likes it because he is free and relaxed. But it is also 'The One' because it shows the diversity of his source material and the way in which he develops it within his own stylistic approach. He goes from as obvious a choice as James P. Johnson's 'The Steeplechase' to as provocative a choice as John Coltrane's 'Giant Step,' and he makes those "steps" stride without damaging the essential context of the piece. He chooses Stevie Wonder's 'You Are the Sunshine of My Life' to swing with, and then reverses his field on Fats Waller's 'Giant Step,' P. Johnson's 'Keepin' Out of Mischief Now' by making it primarily a reflective piece.

He also tackles a Paganini caprice, which is the kind of thing that pianists of the stride school were always doing (cf. Willie the Lion Smith), but does little with it until he finds a place to open up and make it walk. It's a rather pretentious performance, which is not like Wellstood. Otherwise, he ranges far and wide on the musical scene in this collection, turning all sorts of things to his own advantage and playing with great spirit and elan. J.S.W.

Dick Wellstood

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Carole Bayer Sager: *CMC*. 10 songs. $6.95.

Carole Bayer Sager's mellow lyrics are enhanced by the contributions of her collaborators (Marvin Hamlisch, Peter Allen, Bruce Roberts, and Melissa Manchester), while Paul Anka goes it alone in his usual forthright style. His choice ballads perhaps do not require the bost- terous left hand outlined for us here, but her collection sports some dandy piano arrangements by John Dentato. Also, Ms. Sager's songs have been key-edited, thankfully, so that we don't all have to growl-along with her fragile baritone. Both folios have been compassionately delineated by two ego-free craftsmen, and home as well as professional musicians will want to partake in the goods.

The Beatles at the Hollywood Bowl. WBP. 13 songs. $5.95.

So, what else is old? The Beatles have long since separated, and now an enterprising publisher wants to separate you from $5.95. He offers yet another reprint of eight Beatles classics circa 1963-65 (She Loves You, Ticket to Ride, etc.) plus five songs of similar vintage by other early rockers. If tempted to purchase, check your folio shelves first for possible duplication.

Boston. CPP. 9 songs. $5.95.

Locality-name combos having been declared "in," we now receive a first folio offering from rock group Boston, and it's better than the corresponding recording. I could live without the book's pseudo-psychedelic candid shots, but the piano-vocal arrangements, by Bert Dovo, are clean and will not tax the capabilities of anyone who is driven to purchase this so-so material.

Fleetwood Mac: *Rumours*. CPP. 11 songs. $5.95.

I like the no-nonsense approach of this folio. The photography, layout, arranging, and editing are all coolly professional. I wish I could be as enthusiastic about the material. But the band's vocal stylings, back-phrased to the outer limits, are effective only when sung against a solid, four-beat rhythm section. Playing these anticipations and/or delays in the right hand makes it difficult to read the resulting oddly accented lyrics simultaneously, and the result is hurky-jerky. Use your judgment.

Historical Anthology of Country Music. Big 3. 100 songs. $7.95.

There are a million stories—well, at least a hundred—in the naked country, and every conceivable variety of grits-opera situation is lined out in this top-notch folio. Jilted lovers, faithless spouses, family reunions, double suicides—they're all here. The material spans the '40s, '50s, and early '60s, and most of the songs have been top sellers on the country charts.

The inclusion of concise bio/disco- graphs of twenty-one outstanding recording artists such as Patsy Cline, Eddy Arnold, and Charley Pride is a brilliant packaging idea, for which we can thank Ms. Maureen Sickler. For my money, this is the definitive pre-cross-over country collection.

Lynyrd Skynyrd Songbook. MCA. 21 songs. $7.95.

Do not be seduced by the folio's glamorous shots, nor by the deceptively simple notation. Even the combined best efforts of editor and purchaser cannot hope to re-create the sound of a heavy Southern blues band reaching for new levels of vocal and instrumental scale-bending. Furthermore, much of the group's homegrown material eviscerated from its orchestral skin is too bland, too self-consciously masculine, and too redneck for universal appeal.

The Moody Blues Caught Live + 5. TRO. 18 songs. $4.95.

If the album didn't turn you on, there is little to entice here. The dreary folio cover does not match the album jacket. The music, as printed, is puerile and uninspired, and an eighth-note ostinato left hand cannot substitute for a cymbal-happy drummer. Definitely not for those with a low tolerance for boredom.

Starland Vocal Band: *Rearview Mirror*. C.I.P. 10 songs. $5.95.

Again the Starland Vocal Band leaves me wondering if they know something I don't. This easy, two-line piano vocal simply does not come off like the richly textured recording. It is push-pull all the way. An excellent tune with commercial possibilities, *Mr. Wrong*, is transcribed so precisely that we lose its beauty while digging our way out of the overphrased vocalistic tunnels. Why are so many pages wasted on St. Croix Silent Night's already-notated choruses? The same can be asked of Norfolk, a simple folkie tune: Thirteen pages of verses and choruses stretched in and out of meter in order to produce an ear-catching sound totally unattainable outside of the recording studio. Why the chintzy black-and-white "horsing around" photos? This a best-selling group, and their public should be treated due respect, not with flakey inconsistencies. Come on, gang, clean up your act...

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