Special: Recording Technology's Quantum Leap

Superdisc Is Here!

Experts Assess
Technological Advances
From the Studio
to Your Turntable

Digital Comes to Editing
& Mastering
Why Half-Speed Cutting?
The Search for Quality Vinyl
The Impact of Music

Fleetwood Mac, Steely Dan,
Supertramp, George Benson, Al Stewart,
Others on Superdiscs... see Backbeat

Robin Williams
at the Record Plant,
Los Angeles
AND SO IS THE FIGHT ABOUT TUNERS.

At one time the struggle between amplifiers was won by the amp that had the most muscle. And the tuner that brought in the most stations also brought in the most acclaim.

Today, there's one series of amplifiers whose technology has put it in a class by itself. And now, with Pioneer's new TX 9800 tuner it's met its match.

While other tuners offer features that just sound great, every feature in Pioneer's TX 9800 helps to produce great sound.

Unlike ordinary tuners that are content with ordinary circuitry, the TX 9800 has a new Quadrature Discriminator Transformer that works with Pioneer's exclusive PA 3001-A integrated circuit to reduce distortion to 0.05% at 1 KHz and raise the signal-to-noise ratio to 83 dB. Whew!

Many of today's tuners use sophisticated low pass filters to remove the 19 KHz pilot signal that's present in every stereo broadcast. But while they're effective in removing the pilot signal, they're also effective in removing some of the music.

The TX 9800 has Automatic Pilot Canceling Circuitry that makes sure every part of the music is heard all of the time. And that distortion is veritably unheard of.

The crowning achievement of most tuners today is the sensitivity of their front end. And though it's much to their credit to bring in weak stations, it means nothing unless they can do it without spurious noise or other interference.

The TX 9800's front end has three dual gate MOSFET's that work with our five gang variable capacitor to give you an FM sensitivity of 8.8 dBf. And also make sure that your favorite music is not disturbed by what's playing elsewhere on the dial.

And while most tuners today give you one band width for all FM stations, the TX 9800 gives you two. For both AM and FM. A wide band that lets you bring in strong stations loud and clear. And a narrow one that finds even the weakest station on a crowded dial and brings it in without any interference.

All told, these scientific innovations sound mighty impressive. But they wouldn't sound like much without an even more impressive tuning system.

The TX 9800 has a specially designed Quartz Sampling Lock Tuning System, that fortunately, is a lot easier to operate than pronounce.

Simply rotate the tuning dial to your desired station. When the station is tuned exactly right a "tune" light comes on. By releasing the tuning dial you automatically lock onto that broadcast. And automatically eliminate FM drift.

By now, it must be obvious that the same thinking that went into Pioneer's new amplifiers has also gone into their new line of tuners.

So just as Pioneer ended the class struggle between amps they won the fighter between tuners. With a technical knockout.
THE STRUGGLE BETWEEN THE CLASSES IS OVER.

For years people have clashed over which amplifiers are best. Class A or Class B. Expensive Non-switching Class A amplifiers are known to offer the lowest levels of distortion. At the same time, they also offer the highest operating temperatures. And while Switching Class B amplifiers increase efficiency, they also increase distortion.

So if you’re not paying through the nose for a heat-producing Class A amplifier, you’ll be paying through the ear for a distortion-producing Class B.

At Pioneer, we believe most of today’s Class A and Class B amplifiers are pretty much in the same class. The class below Pioneer’s SA 9800.

Pioneer’s Non-switching SA 9800 offers the efficiency found in the finest Class B amplifiers. With a distortion level found in the finest Class A. An unheard of 0.005% at 10–20,000 hertz.

And while you’re certain to find conventional power transistors in most conventional amplifiers, you won’t find them in the SA 9800. You’ll find specially developed RET (Ring Emitter Transistors) transistors that greatly increase frequency response. So instead of getting distortion at high frequencies, you get clean clear sound. Nothing more. Nothing less.

Instead of slow-to-react VU meters that give you average readings or more sophisticated LED’s that give you limited resolution, the SA 9800 offers a Fluroscan metering system that is so fast and so precise it instantaneously follows every peak in power to make sure you’re never bothered by overload or clipping distortion.

And while most amplifiers try to impress you with all the things they do, the SA 9800 can even impress you with the one thing it simply doesn’t do. It doesn’t add anything to the sound it reproduces. An impressive 110dB S/N ratio is proof of it.

While these features alone are enough to outclass most popular amplifiers, the SA 9800 also offers features like DC phono and equalizer sections and DC flat and power amps that eliminate phase and transient distortion. Cartridge load selectors that let you get the most out of every cartridge. And independent left and right channel power supplies.

Obviously, it took revolutionary technology to build the SA 9800. But the same technology and skillful engineering that went into the SA 9800 also goes into every amplifier in Pioneer’s new series.

At Pioneer, we’re certain that others will soon be entering the class of 9800. And though they all may be built along similar lines, in terms of value Pioneer will always be in a class by itself.

CIRCLE 39 ON PAGE 107
What do you get when you put together...

1. A tonearm worth $150...
   (with UNIPoise patented single pivot point suspension)

2. A turntable worth $200...
   (with GYROPOISE exclusive patented magnetic suspension)

3. A cartridge worth $150...
   (Professional Calibration Standard with patented STEREOHEDRON stylus tip)

Stanton's NEW 8005 turntable system!

Stanton's handsome new low profile Turntable has unequalled features:

1. The Gyropoise platter actually floats on air. This magnetic suspension eliminates vertical friction and almost complete acoustical isolation is insured.

2. Unipoise tonearm with patented single point suspension reduces lateral and vertical friction to a minimum.

3. Automatic stop and lift-off on some models ... manual operation on others.

4. Each Turntable comes with a top-of-the-line calibrated Stanton cartridge (881S or 681 Triple-E).

5. The Universal Cartridge Adapter Head accommodates all cartridges (a free Adapter Head comes with each turntable).

6. Other features:
   a) Precision ground belt drive
   b) Tracking force and anti-skate mechanism
   c) Viscous damped cueing
   d) Die cast aluminum platter
   e) Hinged dust cover adjustable to any position

For further information write:
Stanton Magnetics, Inc.
Terminal Drive, Plainview, N.Y. 11803

"The choice of the Professionals™"
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High Technology Recordings: The Secret Ingredient

Years ago, when the motion-pictures industry was finding it hard to pull enough 75-cents customers away from their new television sets to fill its large, luxurious movie palaces, one budding group of entrepreneurs had little trouble filling small, plain movie shacks at $3.00 to $4.00 a head. The pictures they exhibited were generally low budget, often grainy, sometimes cast with amateur actors, usually black and white, and almost always subtitled. But these movies had something their fans—who preferred to call themselves film buffs—wanted, missed in Hollywood's escapist fare, and were willing to pay a premium price for: a refreshingly realistic honesty. They called these movies art films; the often ramshackle theaters, they called art film houses. When the house did not have a new art film, its manager would often rent an old but well-remembered English-language movie, one that was likely to empty neighborhood theaters but that would still fill his seats at $3.00 to $4.00 per. Soon these good old movies also became known as art films. And eventually any movie would be an art film if you could charge that much for it.

Today a budding group of record manufacturers has not only noticed a certain lack in the general mass-produced record, but feels that something can be done about it. This time it is not the artistic content of the medium they are attempting to improve, but the technical quality. In fact, the music on their recordings often seems merely one more ingredient necessary to create a superb signal-to-noise ratio.

Many well-thought-out techniques, from the studio recording through the final pressing, are being used to produce these new records, which are known as audiophile discs, and the most important are discussed elsewhere in this issue. Some of these discs' masters are cut directly, others taped with a digital process, and still others recorded via the traditional analog procedure but with extra care. Sometimes the master discs are cut at half speed, which takes twice as long but is another indication of the care that goes into the making of these special records. Some sessions are recorded with a two- or three-microphone setup, others with an enormous array of channels that some wizard (or warlock) of a producer will use to create the final musical message in a later editing session. But whatever the particular techniques or procedures, the very best products of each company are close to indistinguishable, for they all contain the same secret ingredient: Care.

Great care also goes into choosing the plastic, the electroplating facilities, and the pressing plants, and some companies, both in the United States and abroad, have developed reputations by catering to this new quality-minded industry. If many major companies' recordings sound as good as, or better than, many audiophile discs, the paradox remains that, in an industry that deals with the highest form of art, some manufacturers can command premium prices for their product simply by caring for it at all stages of production.

Will the majors follow suit? So far they show little inclination to do so; at the most, some of them are licensing a few of their recordings to audiophile companies for additional revenues. The cost to them of greatly increased quality control seems prohibitive.

But then again, it now costs about $3.00 or $4.00 to get into a neighborhood movie house to see an ordinary movie.
While our competitors were listening to Technics Linear Phase speakers, we introduced phase two.

When Technics introduced Linear Phase speakers two years ago, we took the audio world by surprise. And why not? After all, Technics Linear Phase speakers were the first speakers to actually show you waveform fidelity. Not simply with tone bursts and sine waves, but by actually comparing the waveforms of live musical instruments to the output waveforms of our Linear Phase speakers.

Now, with the 3-way SB-6060 and 4-way SB-7070 (shown below), Technics takes you to phase two. Because compared to our first Linear Phase speakers, both give you wider frequency extension, better frequency response, and even more phase linearity, which means even better waveform fidelity.

How did we make such good speakers even better? We started with BASS (Basic Acoustic Simulation System), an EM 370-based interactive computer system. With it, Technics engineers can do what they only dreamed of doing in the past: Calculate the sound pressure and distortion characteristics of transducers without physically building and measuring countless prototypes.

Next, we took these computer-derived drivers and combined them with Technics unique phase-controlling crossover network. And of course, we staggered the drivers to align their acoustic centers precisely.

It's easy to see the result of all this technology. Just compare the waveforms. On the left is a waveform of a live piano. On the right, the piano as reproduced by the SB-7070. That's waveform fidelity.

Listen to the 4-way SB-7070. What you'll hear is its smooth transition between low, midrange and high frequencies. Then notice the bass response. It's deep and tight. With much more punch, better definition and even less IM distortion than its predecessor. That's because when the upper bass frequencies are handled by a separate driver, the woofer does a much better job at handling the lower bass frequencies. You'll also hear vocals that are smooth and natural. That's because the SB-7070's high-midrange driver was designed with "free edge" construction to avoid coloration of the critical upper-midrange frequencies.

And by adding a new, smaller tweeter with improved dispersion characteristics, the SB-7070's high-end frequency response was extended to 32 kHz. Technics 3-way SB-6060 and 4-way SB-7070. For music that sounds like it was originally played, Live.
THE UNREEL DECKS FROM AIWA

You may not have heard of AIWA, but once you've heard the AD-6900U and the AD-6800, you won't forget us.

THE AIWA AD-6900U IS INNOVATIVE, PURE AND SIMPLE.

The exclusive Flat Response Tuning System (FRTS) is designed to adjust the circuitry of the deck to the precise bias level of any kind of tape on the market, so you get the flattest possible frequency response. Likewise, the exclusive 3-Head V-Cut Design overcomes the roughness, or "Contour Effect" found in the lower frequencies on most other cassette decks. Besides these innovations, we have been able to achieve a WOW and FLUTTER of only 0.04% (WRMS), a Frequency Response of 20 to 20,000 Hz, and an S/N Ratio of 68 dB using FeCr tape with Dolby on.

THE AD-6800 IS IN A CLASS BY ITSELF.

Like the AD-6900U, the AD-6800 offers its own Flat Response tuning System, and with AIWA's 38-Pulse FG Servo-Motor, speed deviation is kept to a minimum. The AD-6800 also has Double Needle Meters and proven Peak Hold facility. A WOW and FLUTTER of 0.05% (WRMS), a Frequency Response of 20 to 19,000 Hz, and an S/N Ratio of 65 dB using FeCr tape with Dolby on all mean a superior performing deck. The AD-6800's piano key controls respond smoothly and instantly to the lightest touch. The AD-6800 also features Memory Rewind, Auto Cassette Loading and Limiter.

SOUND US OUT.

If you like what you've seen at AIWA so far, ask your AIWA dealer for a demonstration. You'll really like what you hear. And you'll agree. These are the Unreel Decks.

AIWA

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About the Cover

When we first began to wonder who might best personify "Superdisc" on this month's cover (before the movie Superman broke and catapulted Christopher Reeve into the public eye), the outrageously gifted Robin Williams occurred to us as a good choice because of the otherworldly—though not precisely Kryptonian—associations that trail after his role on the consistently popular ABC TV series Mork and Mindy. It seemed convenient that the photograph be taken on the West Coast, Robin's stamping ground, and an ideal location came to our attention in the Record Plant, a busy Los Angeles recording studio that signaled its commitment to state-of-the-art sonic quality late last year by placing an order for one of the first of 3M's digital mastering recorders, soon to be delivered. So it is that Robin's "Superdisc" is caught materializing before the Record Plant's 44-in., 32-out computerized recording console, custom built by the New York firm Automated Processes.

Robin is about to enter the world of recordings himself. By the time you read this, he will have signed with Casablanca to record a comedy album, for which he will—naturally—write all the material. Though release plans are indefinite, he assures us it will come down soon. (But was there a twinkle in his eye?) And he wouldn't be Robin Williams if he couldn't pull that last surprise out of the hat for us. His principal instruction in acting took place under John Houseman at the Juilliard School in New York, where his roommate was—of all people—Christopher Reeve!

For the answer to last month's Crostic, see page 13.

ADVERTISING
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□ CIRCLE 2 ON PAGE 107

CIRCLE 1 ON PAGE 107
Introducing the newest

The first Sansui G-receivers, introduced a year ago, featuring Sansui's exclusive DC amplifier circuitry (patent pending) attained a new level of receiver performance: zero Hz (DC) to 200,000Hz frequency response, super-high slew rates, ultra-fast rise times, and consequently, a dramatic reduction of TIM distortion. The effect of this is of enormous importance to the ultimate tonal quality of the music you hear. The unique technology of Sansui's G-receivers permits extremely clean and true-to-life music reproduction, with virtually no distortion. Already universally recognized, our technology is often imitated.

Now Sansui introduces the newest G-receivers. The G-7500 and G-5500 provide all the sound and operational advantages of pure Sansui engineering and offer you the finest value of any receiver available today.

The G-7500 power amplifier circuitry is Pure DC. With no capacitors in the coupling or feedback loops, frequency response is super-wide: zero Hz (DC) to 200,000Hz. Slew rate and rise time, 60V/µSec. and 1.4µSec. respectively, exceed all but a very few of the most expensive separate amplifiers on the market today. And with the virtual elimination of Transient Intermodulation Distortion, transient response is outstanding.

Power output of the Pure Power G-7500 is an impressive 90 watts per channel, min. RMS, both channels into 8 ohms, with no more than 0.025%, total harmonic distortion from 20 to 20,000Hz. To ensure complete safety with this high power, Sansui engineers have designed dual-function, IC-based protection circuitry that prevents either overcurrent or excessive Direct Current from flowing into your speaker systems.

In the tuner section, a dual-gate MOS FET FM front end, three-stage IF amplifier and PLL IC multiplex circuit add up to high sensitivity, pinpoint selectivity and maximum stereo separation.

Human engineering makes the G-7500 a true pleasure to operate symmetrically designed front panel positions, ultra-smooth tuning knob directly below the tuning and...
signal meters, with the detented attenuator knob directly below the dual-power-output meters. The suggested retail price of the G-7500 is $620.00.

The Pure Power G-5500 DC receiver uses the same advanced technology as the G-7500, and offers most of the same features in a slightly lower power/price class: 60 watts per channel, min. RMS, both channels into 8 ohms from 20 to 20,000Hz, with no more than 0.03% THD at a suggested retail price of only $465.00.

Both the G-7500 and G-5500 are ultra-elegant, with new fine-line lettering, a soft-silver face and handsome rich-looking cabinets of simulated rosewood grain.

If your power needs are modest, but you still insist on superior performance and great value, we suggest the new Sansui G-4500 and G-3500, which deliver levels of performance never before available in budget-class receivers. Visit your authorized Sansui dealer today for a look-and-listen, because receivers this special don't come along every day.
Letters

Unauthorized Recordings

Though I find myself in basic agreement with David Hamilton about the release of unauthorized recordings ("Who Speaks for Callas?"—June 1), the question of unauthorized recordings of live opera performances is a bit more complex.

True, because of the lack of reviews in major magazines, the somewhat vague descriptions of the contents, and the sometimes misleading claims for the recorded sound, the purchaser of "pirate" discs can find himself with some pretty inadequate recordings. I assume the fact that on my shelves rest, among others, an all-star set of Le Forza del destino so distorted that it is unlistenable, a Meistersinger that captures the conversation of the audience better than the performance on stage, and an ideally cast Adriana Lecouvren that sounds as though it was recorded through layers of cotton. But live recordings have a lot to offer. They satisfy the appetite of the opera listener who finds delight in the voice and dramatic skill of certain artists. Many major and deserving performances have not been recorded in some of their most fascinating roles.

As Mr. Hamilton points out, because "record companies want to make money," there has been (and still is) a hesitancy to record lesser-known works of the opera repertoire. Columbia recently led the way in filling this gap, but the other major labels still have a long way to go. Until then, the "underground" remains the only alternative.

Live recordings capture something else that can become special for the listener: He can hear artists responding to their audiences. Yes, one also hears inaccuracies and may not have a true and complete documentation of the opera, but one often has instead a vivid testimony of the skill of the artist in performance, be it a bad day or good, with no help from mechanical gimmicks. Maria Callas believed that the true nut of her art could be found only in recordings of her stage performances as she interacted with the other singers involved in the drama and with the audience.

Finally, the underground has preserved some unique operatic moments that were either never recorded or watered down on commercial discs. To name only two: the sole Metropolitan Opera performance of Jon Vickers and Brigit Nilsson as Tristan and Isolde, and La Scala's monumental 1962 staging of Les Huguenots.

Certainly artists deserve to be paid for their recordings, the public should get what it pays for, and the underground needs to be responsible in the selection and representation of its releases. Yet, despite the regrettable occasional exploitation of performers by the pirate recording industry, it serves an aesthetic function in delivering many great treasures that otherwise might be denied us.

Dan Studer
Lincoln, Neb.

Who speaks for Callas? We assume that that great lady could speak for herself before her death. Had she been unhappy about the preservation and sale of her "live" performances, she had both the spirit and the means to put the vendors of records and tapes of those performances out of business (or at least try). The fact that she chose not to is an indication that she, like many other artists, felt "private" recordings served a good purpose. (She would not, of course, have approved the last commercial LP released.)

To be sure, a large record company might figure that every dollar a collector spends on a pirate disc is a dollar that might have gone for a modern recording if the pirate were not available. But the amount of business actually lost is so small that it isn't worth the fuss.

Frederick S. Lightfoot
Greenport, N.Y.

American Song Festival

I was amused but, even more, irritated by the article on the American Song Festival by Richard J. Pietschmann (BACKBEAT, December). I was about to enter this year's contest when it occurred to me that I might be paying the $130.50 fee to have a professional songwriter or producer spend three minutes listening to my material and then claim the basic idea for himself. The article seems to lend support to my theory.

If the judges aren't in it for the so-called lunch money, why are they? To "discover" new talent? That would mean moving out the old talent, and I doubt the old talent is willing to move. And if the ASF is such a great source for new talent, why has the music industry been pumping out such stale songs and even turning to pornography in order to sell records? I know there is better talent out there to be discovered, but I seriously doubt that the ASF is really helping it along.

Bob Gilford
East Wenatchee, Wash.

Mr. Pietschmann replies: Sure, the ASF judges are in it for the money, but they're also pros. The judges seem genuinely interested in finding good new material and then signing the song (and possibly the writer) for their publishing company. There is simply no percentage in stealing a song. Actually, the real problem is the low quality of the tunes to which they listen.

Levine and Mahler

I was interested to read Bernard Jacobson's
THE JVC RECEIVER.
Every bit as revolutionary as they look, and then some.

In our case, looks are never deceiving. Because all our new DC integrated stereo receivers combine unprecedented, revolutionary styling with unique electronic design features that reflect JVC's more than 50 years' experience in audio development and innovation.

DC Power Amplifier Design
All four new JVC receivers feature DC amplifier circuitry. They offer virtually distortion-free performance (0.03% THD) throughout the entire audible spectrum. As a result, the sound you hear is clearer, cleaner and crisper. In addition, your speakers are protected with the Triple Power Protection circuit and you can monitor output wattage with dual power meters. Choose from 120, 85, 60 and 35 watts/channel.*

SEA all the way
All four receivers offer JVC's exclusive built-in SEA five-zone graphic equalizer for more complete control of the music spectrum than conventional tone controls. You can attenuate or accentuate any of five separate musical bands, and as an added feature, we've incorporated a special button so that the SEA circuit can be switched to your tape deck.

Pushbutton Source Selectors
A horizontal panel of pushbuttons provides total control over all functions. And brilliantly illuminated LEDs instantly indicate the program source. Professional type slider controls set volume and balance. Combine all these exclusive features with high sensitivity and tuning precision, thumb control tuning wheel and accurate dual-metering and you'll see just how revolutionary the new JVC DC integrated stereo receivers are. Pay one at your JVC dealer soon. JVC High Fidelity Division, US JVC Corp., 58-75 Queens Midtown Expressway, Maspeth, NY 11378. In Canada: JVC Electronics of Canada Ltd., Ont.

JVC
AKAI's GX Head is guaranteed* for over 17 years.

What you're looking at is AKAI's exclusive GX Head.

A technical departure from any other recording/playback head design on the market today. Its composition: glass and crystal ferrite.

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That's over 17 years of continuous, superb play.

It's a head that many audiophiles feel has set the industry's performance and durability standards.

And you'll find it exclusively in AKAI cassette and reel-to-reel decks.

All of which means that to get the clean, crisp sound your head deserves, use ours. AKAI's GX glass and crystal ferrite.

For details, see your AKAI dealer, or write AKAI America, Ltd., P.O. Box 6010, Compton, CA 90224.

AKAI

You never heard it so good.
article. "James Levine on Verdi and Mozart" [December], and particularly the conductor's remarks about Mahler. Levine's broadcasts and recordings are ample proof that Mahler's admirers is as difficult to discover as those of Verdi and Mozart. Evidently he sees Mahler as a simple, direct, naive composer. The slow tempos he favors are perhaps intended to underline a heart-on-the-sleeve romanticism. Of the composer's satanic wit, of his barbed intellectualty, of his deep bitterness, of his metaphysical terrors, of his quirky and delightful sense of humor, Levine has little to tell us. He finds more menace in the introduction to the first movement of Brahms's First Symphony than he does in the entire Mahler canon.

We are the poorer that Columbia has not recorded Pierre Boulez Mahler. However, we can enjoy fine, idiomatic performances of this music by such conductors as Horenstein, Walter, Solti, Bernstein, Kubelik, Kletzki, and Haitink.

David A. Dooley
Knoxville, Tenn.

More on Sony's PS-X7

As the owner of a Sony PS-X6 turntable, I read with interest your review of the PS-X7 [December]. You correctly stated that the next model "down" (the PS-X6) does not have a carbon-fiber tone arm. It also lacks the PS-X7's viscom plastic turntable mat.

The review asserted that, in order to adjust the cartridge overhang, it is necessary to push the tone arm down against the upward force of the cueing device. The correct method of making this adjustment is to switch the turntable to Manual and activate the start switch. After the tone arm has been lowered onto its rest, turn the power switch off. This leaves the arm free so that the stylus can be positioned on the overhang template without interference from the cueing device.

Mark L. Chamberlin
Albuquerque, N.M.

Unfortunately, getting the arm of the PS-X7 to hang free with the platter stopped is not as easy as Mr. Chamberlin (and Sony's instruction manual) indicates. When the start switch is activated and the power switch turned off, the arm is lifted out of the cueing position anyway. The way to avoid this (which is not mentioned in the manual) is to stop the platter by hand as soon as the power is off. While it is hardly obvious, this solution is better than overcoming the upward force of the cueing device, which we are quite certain did no harm, in any case.

SOLUTION TO HIFI-CROSTIC NO. 42

Virgil Thomson: Virgil Thomson

I never at any time took to religion. In the Baptist view I am not even a Christian, having never experienced conversion or undergone baptism. It has nothing to do with the fact that a major part of my music has either been composed for liturgical use or inspired by hymnody.

March 1979

10

How close can hi-fi get to an authentic musical experience?

A Slip on new Audio-Technica Stereophones and hear for yourself.

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

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

And if you think that great performance can only come from heavy, bulky stereophones, get ready for another surprise. Our heaviest model is less than 71/2 ozs. and our lightest is an incredible 4¾ ounces light. Comfort that lasts an entire opera if you wish.

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

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

Model ATH-1
The moving coil dynamic stereo-phone that weighs just 4¾ oz.
$29.95
21. Functionalist Criticism

by Gene Lees

When my sister was four years old she saw Niagara Falls for the first time. She looked out over the gorge at those two overwhelming cascades, thundering their awesome power and flinging those great clouds of drenching spray into the air, for perhaps a full minute. Then she asked, "What's it for?"

She may have acquired that functionalist turn of mind from my grandfather, a Cockney ironworker and Communist who used to say, "All art is propaganda." There is a certain limited validity to his view, in that it is impossible to execute an act of artistic expression without attempting to persuade the audience of something, if only that a sunset is beautiful. Beyond this, my grandfather meant that all art should be propaganda, and that good art was art in accord with his social philosophy. Any work of art that did not serve to promote class warfare was useless and therefore frivolous and decadent. This attitude, imposed by the fiat of cultural commissars, has led, in Communist countries, to all those dreary operas, ballets, and "inspirational" pageants about lady tractor drivers triumphing over enemies of the state.

But this arid and austere view of art is not the exclusive property of the Communists. Long before Marx, the Puritans brought it here from England and, as I have noted in a previous column, even went so far as to ban music from their churches. There is, in severe Protestant circles, an underlying distrust—almost a paranoid fear—of pleasure. The puritan cannot enjoy a work of art in and for itself. He needs an excuse. The work must be "doing" something, accomplishing something, even if it is only giving him "culture." This is doubtless why "getting culture" is so often seen as a duty by Americans. If they can transform a "cultural" experience into a duty—make it just a little painful—they are free to sneak a little pleasure past the distrustful watchdog of guilt-laden conscience.

In an essay published in 1910 in The Photographic Quarterly, the brilliant German-Japanese-American critic Sadakichi Hartmann wrote:

"Puritanism is no longer a creed. It has deteriorated into an "existing condition." ... Its tentacles, octopuslike, have entangled our very customs and manners. We may laugh at its tyranny but cannot prevent it from introducing itself into our opinions ... and from curtailing our pleasures and predilections in matters of taste.

About 140 years ago, De Tocqueville pointed out in Democracy in America that the people of a democratic nation "will habitually prefer the useful to the beautiful, and they will require that the beautiful should be useful." Both puritanism and Marxism are tributaries of that functionalist stream of critical thought in this country. And who knows how many Americans have been made comfortable by Marxism because it offers a "rationalist" secular excuse for their inner puritanism?

A critic, if he cannot be wholly free of his prejudices, must at least be aware of them. Moreover, if he is going to give the art he is discussing its due, he has a duty to oppose his own prejudices and open himself to other aesthetic experiences. If he cannot do so, he should suspend judgment.

I would not make a public statement on the music of Mahler, for example, because he bores me and I respect too much the judgment of others who do enjoy him. I conclude that there is some deficiency in me, and my prejudice against Mahler is one I simply will not "fight" for.

It is precisely this kind of view of art that the functionalist critic will not take—perhaps cannot take. Such critics want a work of art to advance a cause with which they are in sympathy, and they are likely to denigrate works of art whose purposes or philosophies they disagree with or are indifferent to.

It is easy to see how functionalist criticism can be applied to verbal art, including literature in print, theater, films, and television. For verbal art expresses a viewpoint, whether explicitly, as in overtly propagandistic works, or implicitly, as in certain works of poetry. It is less easy to see how it can be applied to music, particularly instrumental music, which has no verbal dimension and uses abstract means to reach the subconscious and emotional dimensions of man's nature. But the Soviets have always been able to do it, and now so have we.

It first became conspicuous to me in jazz criticism in the early 1960s. Later it spilled over into the "new" criticism of popular music. In recent years, it has in fact become a central tenet of serious criticism in popular music and jazz—and has had some dire effects not only on American music and musicians, but on our society.

In the next issue I will examine some of these functionalist critics and the results of their writing.
When you Test-drive the best speakers from Britain
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Large presentation for hi-power system
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Controlled by 14 element dividing network with fuse protection for the treble unit
What you get is less restriction, overall balance openness with no coloration

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Our passive radiator (ABR) system gives solid bass, smooth response and dispersion, and stereo imaging. Use with all power amplifiers.
Has 3 active drive units and passive radiator.
Drive units:
FC 122 bass unit, 330 mm passive with double suspension for pure axial movement.
MD 501 mid-range with 52 mm voice coil
HF 2001 treble unit with 19 mm voice coil
Controlled by 18 element network with fuse protection for treble unit.

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Yamaha goes its separates performance,

We've never done things the conventional way. Witness our legendary B-1 and C-1 separates. These components, utilizing Yamaha-developed Vertical-FET technology, brought into being a new level of natural, accurate sound, advanced features and dramatic styling. Our new C-4 and M-4 separates follow in this tradition, while doing some precedent setting of their own.

We were determined that the performance of the C-4 should put you in touch with the outermost limits of the audio art. So it has the most advanced circuitry imaginable to give you sound so real and true, you'll swear it's live. State-of-the-art DC circuitry in the phono preamp section reduces distortion to a miniscule 0.0035% at 2V output. Signal-to-noise ratio has been tamed to the virtually inaudible level of 97dB at 10mV. Plus we've added an exclusive Current Noise Reduction Circuit to maintain this high S/N ratio regardless of varying impedances caused by using different cartridges. But the sound of the C-4 goes beyond super specs and state-of-the-art circuitry. You have to hear the sound to believe such pure, musical tonality could pass through a piece of electronics.

The C-4's features put you in total command of its superb sound. Unheard-of tone control is yours with the exclusive, continuously variable turnover frequencies for the bass and treble controls. No need to hook up an expensive outboard parametric or graphic equalizer to make meaningful tone adjustments. The C-4 gives you the best of both at the twist of a finger. And with the C-4, you don't have to settle for anything less than the absolute optimum performance from your choice of phono cartridge. Select from five ranges for both capacitance and resistance to perfectly match the amp's load resistance to your cartridges' characteristics. You also have the luxury of indulging in the beautifully transparent highs available from a moving coil cartridge, because we've outfitted the C-4 with its own head amp. It provides the boost necessary for a moving coil cartridge, saving you the expense of buying a separate head amp or transformer. Completely Independent Input and Output selectors give you the freedom of listening to a signal from one source while recording a signal from another. Features like these make the C-4 a super-sophisticated device whose possibilities and applications are limited only by your imagination. With graceful, yet bold styling, executed with ease-of-operation in mind, the C-4 is a marvel of modern technology leaving nothing to be desired but its ownership.
way. With unprecedented features and price.

M-4 Our passion for pure tonality reaches toward perfection in the M-4. To deliver the cleanest, most musical sound possible, we built it with DC circuitry in a dual mono amp configuration, each with its own signal path from input to output. The input section consists of dual-FET's in a differential configuration with a cascode bootstrapping circuit. So you get the unbeatable advantages of DC circuitry—minimal low frequency phase shift and maximum low frequency accuracy and musicality—while beating the inherent instability of DC circuitry.

The M-4's specs are nothing short of spectacular. THD takes a bow at an incredibly low 0.005% at rated output of 120W per channel into 8 ohms, 20Hz to 20kHz. Signal-to-noise ratio is, (please hold the applause) an utterly silent 118dB.

Again though, specs can't do the sound of the M-4 justice. When it comes to doing justice to amplifying a signal from a preamp (especially the C-4) we feel the M-4 deserves a standing ovation. If you love musically accurate sound coming from your speakers, you will be equally enthralled with the sound of the M-4.

And with its functional features. Visually arresting LEDs monitor your amp's power output, while overload indicators allow you to see when you're pushing it beyond its intended limits. The M-4 is a musical experience you participate in. Drive two sets of speakers independently or simultaneously with the simple push of a computer-grade switch, as well as select the DC or AC operating mode with the back panel switch.

And while you are driving your M-4, its drilled metal mesh top allows the amp to "breathe." It's just one example of the unique design philosophy of form-folls-function in styling, features and performance.

And that's what our new separates are all about. Unprecedented performance, features and styling. And price? Well, you can benefit from what we learned with our cost-no-object B-1, C-1. Without paying the price. Audition our new, rack-mountable (with optional kit), super separates, the C-4 and M-4, for yourself. It's an ear-opening experience you won't want to miss. For the name of your Yamaha Audio Specialty Dealer, check your Yellow Pages or write us.

From Yamaha, naturally.

YAMAHA
Audio Division, P.O. Box 5600, Buena Park, CA 90622
Here one second, gone the next. This is clearly a case of brutality by a low definition cartridge.

But an ADC cartridge can rescue him.

The ZLM and its unique ALIPTIC® stylus, combines exciting sound reproduction with less wear to your records and flawless stereo imaging.

Fact is, it has an ultra linear frequency response of ±1dB from 10Hz to 20kHz and ±1½dB to 26kHz, and tracks at ½ to 1¼ grams.

If you'd like the complete facts about the ADC ZLM cartridge, simply circle our reader service number on the reader service card, and we'll send you the ADC brochure and a free record care gift.

So bring back the cellist and other musicians. Invest in something that understands them, and protects them. An ADC cartridge.

Audio Dynamics Corp., Pickett District Rd., New Milford, CT 06776 • Distributed in Canada by BSR (Canada) Ltd., Ont.

ALIPTIC® is a registered trademark of Audio Dynamics Corporation.
Mid December of last year marked the beginning of regional marketing of the long-awaited Philips optical Videodisc system. Manufactured by the Magnavox subsidiary of the giant North American Philips Company, the player is sold under the name Magnavision at a suggested retail price of $695. Recorded software—a catalog that already boasts some 200 selections—is manufactured by MCA and sold as MCA DiscoVision. Prices range from about $6.00 for a typical half-hour informational program (Julia Child, Better Tennis in Thirty Minutes) to about $16 for current feature films (Saturday Night Fever, Animal House) and $20 for some specialty programs (a full-length Mikado). Following the initial introduction in Atlanta, distribution is expected to extend to other U.S. markets during 1979 and nationwide by 1980.

At the last round of announcements from Magnavox and MCA (HF, June and July 1975), the predicted player cost was about $500 and the discs—then single-sided only—were expected to sell for between $2.00 and $10 per program. Test marketing was planned for 1976, with full-scale sale commencing, it was suggested, in 1977. This is not a rebuke to the system’s backers, almost simultaneously with their 1975 announcement, RCA showed its SelectaVision disc system and said it would be available late in 1976. As Atlantans will attest, there appears to have been more substance to the Magnavision/DiscoVision plans.

As a system, it remains similar to that shown four years ago. The player is designed for connection to the antenna terminals of any television set and “reads” the disc by means of a tiny low-power laser. Physical contact with the information-carrying parts of the disc does not occur during play, which means that wear should be minimal or nonexistent. The discs have no grooves; they resemble ordinary long-playing records but appear mirrorlike because of an internal reflective coating. Playing times run a half-hour and one hour per side.

Audio is recorded on the disc in two channels that can be used to provide either stereophonic sound or such special effects as mono soundtracks in two languages. Separate audio output jacks allow the sound to be routed to a high fidelity system, bypassing the audio section of the TV set. Video information is recorded so that, in the normal mode, one revolution of the disc corresponds to one picture frame. In addition to the video standard of 30 frames per second (for North America), the system is capable of slow motion, fast motion, reverse motion, and freeze frame. Each frame is identified by its own index number and can be retrieved at random.

An alternate “extended play” mode can be used for continuous running entertainment program material, as opposed to the sort of instructional material that should profit most from non-real-time playback speeds. The extended play discs begin at “full” speed (1,800 rpm here, 1,500 for the European market) on the innermost “groove,” but continue the same linear speed throughout the disc for maximum packing density. As a result, rotation speeds approximate half the normal mode standard toward the outer edge of the disc. Though the frame-indexing continues to operate, the loss of the one-frame-per-revolution relationship prohibits slow motion, stop motion, and so on.

This is only one of two mechanisms that have increased storage capacity since 1975. The other is a bonding process by which two single-sided discs can be cemented together to double recording times on a single disc. Since the recorded information is not on the surface of the disc, but embedded within its multilayer construction, the two sides of a double-faced disc cannot be pressed at once, as they are with conventional phonograph records. First each must be metalized to reflect the laser beam focused on it from below, then covered by a protective coating. When the coatings are bonded together, the flat unrecorded sides of the original discs become the outer surfaces of the double-sided one.

Magnavox claims that the picture quality of Magnavision exceeds that of home video tape recorders. On the basis of our limited exposure to the new disc system, the claim may be justified. Certainly we have not seen many tape systems with picture quality equal to that of the Magnavision demonstration at its official debut.

The Beauty of the BEST

JVC is introducing the KD-A8 cassette deck, which, in addition to its ability to record and play metal-particle tapes, is “smart” enough to adjust its bias, equalization, and sensitivity for optimum results with any available tape formulation. The heart of the automatic adjustment system, which JVC calls BEST (for bias, equalization, sensitivity, total), is a microprocessor that controls the recording of test tones, their evaluation, and all the necessary adjustments.

All a user need do is to recognize what category his cassette belongs in—chrome, ferric, ferrichrome, or metal—set the appropriate switches, insert the cassette into the machine, and push one button. Within about 25 seconds, the system chooses the best of 32 available levels of bias current, 7 settings of recording equalization, and 15 degrees of sensitivity. Then it erases all test tones and spools the cassette back to the beginning leaving it ready for recording. Should an inappropriate switch setting be chosen (or should the cassette be of sufficiently poor quality that it cannot be accommodated), an error light flashes.

Occasionally the processor may accept a cassette for which the tape switches are set incorrectly. (For example, in JVC’s own demonstration, a particularly “hot” sample of TDK SA was accepted with the deck set for METAL.) When this happens, the adjustment made by the processor is correct and can be used, making the KD-A8 a particularly forgiving piece of equipment.

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Scott offers new receiver

H. H. Scott's 370R receiver, rated to deliver 60 watts (17 1/4 dBW) per channel into 8 ohms, 20 Hz to 20 kHz at 0.05% maximum total harmonic distortion, features dual power meters calibrated in both watts and dBW. It also has a midrange control as well as those for bass and treble. The FM tuning section has a four-gang variable capacitor and uses a MOSFET amp; sensitivity is said to be 10 1/4 dBf for 30 dB of quieting. The receiver is priced at $449.95.

Subwoofer/speaker combo from RTR

RTR Industries is offering a speaker system consisting of the DAC-1 Rhombus Subwoofer and PS-1 Pyramid Satellite speaker. The rated frequency response of the DAC-1, housed in RTR's proprietary Differential Air Coupler enclosure, is 16 to 150 Hz. The three-way PS-1, which uses the pyramid shape to smooth bass reproduction and minimize internal resonances, includes an immersion-damped woofer and carbon-fiber midrange driver. The DAC-1 costs $550, the PS-1 $295.

Audio Control's redesigned equalizer

The 520B equalizer from Audio Control, a redesign of the company's Model 520, adds a tape monitor circuit controlled by a front-panel switch. The infrasonic filter has sharpened rolloff—thanks to a computer-generated Chebychev circuit—descending at 18 dB per octave. Rated frequency response has been widened to 3 Hz to 100 kHz. The 520B retains the earlier model's four one-octave bands of equalization centered at 36, 60, 120, and 15,500 Hz and a two-octave band at 1 kHz. Price of the 520B is $119.

A Sony with auto reverse

The TC-K96R from Sony Industries is a front-loading stereo cassette deck that offers automatic reverse via what Sony calls a Roto-Bilateral record/playback head that operates in both directions of tape travel. A microprocessor allows programming of the deck for automatic operation. The feature-laden TC-K96R, which has remote control capability and mode-to-mode switching, costs $620.

Space Station echo reverb device

Designed for professional use, Ursa Major's SST 282 Space Station provides a wide variety of reverberant effects, echo, and spatial alteration through digital processing. Space Station may be used to create an apparent change in room size or movement of a signal through repetition and panning—to name but two of its "programs." All connectors are of the XLR type. The Space Station is ready for rack mounting and carries a price tag of $1,995.

(more)
We'll match the tonearm on our lowest-priced turntable against the tonearm on their highest-priced turntable.

We'd like to be very clear about what we have in mind. By "their" we mean everyone else's. And, our lowest-priced turntable is the new CS1237.

The CS1237's tonearm is mounted in a four-point gyroscopic gimbal—widely acknowledged as the finest suspension system available. The tonearm is centered, balanced and pivoted exactly where the vertical and horizontal axes intersect.

From pivot to tonearm head, the shape is a straight line, the shortest distance between those two important points. (Curved tonearms may look sexier, but at the cost of extra mass, less rigidity and lateral imbalance—none of which is consistent with good engineering practice.)

Tracking force is applied by a flat-wound spring coiled around the vertical pivot, and this force is maintained equally on each groove wall whether or not the turntable is level. The tonearm's perfect balance is maintained throughout play.

By contrast, tonearms which apply tracking force by shifting the counterweight forward are actually unbalanced during play and prone to mistracking. For example, on warped records the stylus tends to dig in on the uphill side of the warp and to lose contact on the way down.

Vertical-bearing friction in the CS1237 tonearm is astonishingly low—less than 8 milligrams. It can track as low as 0.25 gram—which means it will allow any cartridge to operate at its own optimum tracking force.

There's still more. The counterweight is carefully damped to attenuate tonearm resonances. Anti-skating is separately calibrated for all stylus types. Cueing is damped in both directions to prevent bounce. And because the CS1237 can play up to six records in sequence, the stylus angle can be set for optimum vertical tracking in either single-play or multiple-play.

To find any other tonearm that seriously matches the CS1237's, you have two choices.

You can consider one of the more exotic separates. But you'll find they cost as much as the entire CS1237. (Price: less than $180, complete with base and cover.)

Or you might compare it with one of the higher-priced Dual turntables. You'll find a few additional refinements, but no difference in design integrity or manufacturing quality. Which is why no other turntable quite matches a Dual. Any Dual.

For the life of your records
United Audio 120 So. Columbus Ave. Mt. Vernon NY 10553
4-head cassette recording is here.

(1) Erase head  (2) Record head  (3) Playback head  (4) Your head

Give us your head, we'll supply the other three. You'll end up getting exactly what you want on tape. The first time. Because our new A-300 3-head cassette deck lets you hear your recording while it's being made.

The A-300 gives you full frequency response when monitoring. Our Dolby* NR circuit lets you record encoded and monitor decoded so you hear exactly what you have on tape. And each head is designed to do only its own job. You'll get the best audio results in each mode.

To give you some creative flexibility, the A-300 lets you mix mic and line inputs. There's memory rewind for fast program location. Output level controls for easy level matching. A removable cassette compartment lid for easier head cleaning and demagnetizing. And a price tag considerably smaller than you'd expect for all this.

So let's put our heads together. And get it right the first time. See your TEAC dealer for a hands-on demonstration of the A-300. For our new brochure write TEAC, 7733 Telegraph Road, Montebello, CA 90640.

A-300

* Dolby is a trademark of Dolby Laboratories.
Kenwood’s Audio Purist tuner
New in Kenwood’s Audio Purist Group is the L-07TII FM tuner, which uses a proprietary pulse-count detector for FM modulation. The high linearity of the system is said to account for an improvement of 50% in distortion and 6 to 12 dB in signal-to-noise ratio. According to Kenwood, digital detection allows finer nuances of audio variation to be picked up, thus retrieving more of the information in the original signal than conventional designs do. The L-07TII costs $625.

Slapback echo and doubling on-stage
Electro-Harmonix’s Full Double Tracking Effect creates a signal derived from its input and partially delayed by either 50 or 100 milliseconds, switchable on the front panel. A rotary control determines the degree of blending between the original signal and the delay, providing fullness of sound and alleviating the problem of dead acoustics in small clubs, according to the company. The effect is engaged by stepping on a switch atop the device, which sells for $99.

JSH resurrects the Model T
JSH Laboratories is now ready to market the Model T, a phono preamplifier with moving-coil capability, and the complementary Model A control unit. The Model T provides selectable input capacitance for cartridge matching and LED peak indicators that help to determine the optimum gain setting. The Model A incorporates full switching facilities and parametric equalization. With either a rack-mount case or walnut side panels, the Model T costs $425. JSH expects to price the Model A near $500.

Thorens takes a cue
Elpa Marketing is now offering the Thorens Q-Up, an automatic tone-arm lifter designed for single-play turntables without automatic stop. It can be installed in minutes with double-sided adhesive tape. When the tone arm reaches the runout groove of a disc, it touches a tripping bar that activates the lifting lever. The Q-Up is priced at $15.

Hot pickups from Ibanez
The new V-2 pickups, available in the Ibanez Studio Series guitars, are also suitable for replacement use in any guitar now using large humbucking pickups. The V-2 series pickups have an extended upper-midrange response and a slight bass rolloff, intended to give the guitar a bright, cutting tone. Designed for use at high volume levels, the V-2s, the manufacturer claims, maintain their tight, punchy sound without breaking up over a wide dynamic range. Available in black or cream, the V-2 pickups cost $55.

Radio Shack goes mini
Radio Shack’s bid in the ministereo market is the Realistic System Seven, comprising the STA-7 receiver and Minimum-7 speakers. Other components can be added to the system. Rated at 10 watts (10 dBW) per channel at 8 ohms, with no more than 0.05% total harmonic distortion, the STA-7 has switchable equalization for extended bass with the Minimum-7s, as well as the normal complement of controls and inputs. The system is priced at $219.95. The STA-7 alone may be purchased for $159.95, the Minimum-7s for $49.95 apiece.
See why TDK

It's the little things you can't see that make a big difference in the way it sounds.

At first glance different brands of tape look pretty much alike. But if you look closely, you'll find there are many subtle differences. And it is these differences that make one tape stand out above all others.

Now you might not spend a lot of time looking closely at tape. But we have to—that's our business. At TDK we're committed to constantly improving our products. For years, our SA cassette has been the High bias reference standard for almost all quality cassette deck manufacturers. Yet we've incorporated improvement after improvement into SA's tape and mechanism since its introduction as the first non-chrome High bias cassette in 1975. These advances mean better quality sound for you. TDK makes this possible, by continuous attention to the little things you can't see.

**The Particles**

The lifeblood of recording tape is microscopic magnetic particles that can be arranged in patterns to store and reproduce sound. At best, they are as small as possible, uniform in size and shape; they are long and narrow (the greater the ratio of length to width, the better); and they are tightly, uniformly packed together, with no gaps or clumps.

Over 40 years of experience in magnetic ferrite technology and 25 years in developing and manufacturing recording tape, bring the TDK SA and AD cassette particle formulations as close to these ideals as current technology will allow.

The TDK SA particle is a cobalt gamma ferric oxide compound made highly stable by our proprietary cobalt-ion adsorption process. The SA particle possesses one of the greatest length/width ratios of any particle used in audio cassette recording: an amazing 11:1. These little wonders are truly "state-of-the-art," and mean higher maximum output level (MOL), higher signal-to-noise and lower noise.

The particle in TDK AD is pure gamma ferric oxide; it has been developed specifically for use in Normal bias decks—in the home, car, in portables. With a length/width ratio of 10:1, the AD particle can deliver what most conventional cassettes lack: an extended, hot high end, to capture all the elusive highs in music, from classical crescendo to raging rock and roll. It is the logical successor to the world's first high fidelity cassette tape particle, TDK SD, introduced in 1968.

Tape layers: coating (top); backing. Containing foreign matter and disruptive static charges. The high packing density that results means that the tape is prepared to handle high input level musical peaks gracefully, and without distortion.

**The Base Film**

We coat our oxides on broad rolls of supremely flexible, but nearly stretch-proof polyester film, to make sure TDK cassettes don't tangle or introduce wow and flutter.

**The Polishing**

After each roll is coated, it goes through a polishing process called "calendering." Any oxide is removed,
and the surface is smoothed to reduce tape head wear and oxide shedding. Reduced friction across the tape heads means lower noise.

The Edge
If you look closely at the edges of TDK's tape, you'll find that they are uniformly straight and parallel to a tolerance of one micron. That's because we slit our tape by pulling it across an array of precisely-positioned, surgically-sharp knives. That means the tape movement is unimpeded; and mistracking that could result in garbled stereo is eliminated.

The Hub/Clamp Assembly
TDK has met a major challenge which has always faced cassette manufacturers:

anchoring the tape to the hub without causing mechanical problems. We use a unique double clamp system we pioneered. It practically eliminates wow and flutter, distortion, dropouts and other problems related to poor winding. Some manufacturers use plastic pins jammed into notches on the edge of the hub. This system can lead to uneven winding, which causes the edges to feather, the tape to bulk unevenly, and occasionally, to snap at the anchor.

The Cleaning
Like most leader tape, ours is designed to protect the recording surface from stress, and to provide a firm anchor to the hub. Unlike most leader tape, TDK's cleans your recorder heads as it passes by.

The Splice
Our splices are firm, with leader and tape lined up exactly. Our splicing tape is specially designed not to bleed adhesive into the cassette mechanism, which could gum up the works.

The Inspection
Before any of our tape is loaded into cassette shells, it must pass a series of inspections to see if it matches up to our own rigorous standards. If it doesn't pass, it's discarded. We never compromise on quality.

The Music and the Machine
We go to more trouble than most companies do, when we manufacture our cassettes. We see to all the little details, so you can hear more of your music. Our super precision cassette mechanism delivers the tape to your heads precisely, without introducing friction, wow and flutter and other problems in the process. And we back that mechanism, and the tape within it, with high fidelity's original full lifetime warranty*, a measure of the value we have placed in our cassettes, for over 10 years.

So next time you buy cassettes, look closely at TDK, and think of all the little things you can't see that make our cassettes just that much better. TDK Electronics Corp., Garden City, NY 11530. In Canada: Superior Electronics Ind., Ltd.

*In the unlikely event that any TDK audio cassette ever fails to perform due to a defect in materials or workmanship, simply return it to your local dealer or to TDK for a free replacement.
New shapes of sound from RTR
The Rhombus Subwoofer . . . The Pyramid Satellite

Now your speaker system
can reproduce true bass.
With the new RTR DAC/1
Rhombus Subwoofer, low
frequency instruments and
deep tones emerge with
a degree of undistorted realism never
before heard in a home system.

In Rhombus, RTR engineers have created the
only enclosure which combines advantages of both
vented and acoustic suspension systems — without
their shortcomings. This is the Differential Area
Coupler* system, the first all-new enclosure design
in a quarter century.
Rhombus delivers flat frequency response from
16 Hz to 150 Hz. Below 16 Hz, the system cuts off
rapidly to eliminate modulation distortion.
Bass peaks and resonances are wiped out
by impedance leveling circuits and the
DAC* format.

Pyramidal design yields an advanced
small speaker. The RTR PS/1 Pyramid
Satellite loudspeaker solves most
problems inherent in small speakers.
Geometrically, pyramid form follows function
better than rectangular enclosures. Space for a
major woofer in a minimal package facilitates
lower frequency response and higher, undistorted
output levels. Non-parallel sides smooth bass
reproduction and curtail internal resonance.

Capitalizing on this format, the RTR Pyramid
Satellite incorporates an array of RTR components
in a dynamic 3-way speaker system. A new total-
immersion-damped woofer cone reduces sonic
coloration and eliminates breakup. Carbon fiber
impregnated soft dome midrange and soft dome
tweeter offer superlative response with wide dispersion.
All told, these are live performance audiophile
speakers in a package destined to become classic.

New shapes combine into a formidable system.
Match Rhombus Subwoofers and Pyramid Satellites.
Be rewarded with hauntingly realistic sound repro-
duction. Attack and dynamics of actual performance reproduce with smoothness, accuracy and
superb detail. This system defines new standards of
performance for all sonic parameters. Equally startling, the price is well below other state-of-the-
art contenders. Audition it soon at your RTR
dealer...and believe your ears.

RTR Industries, 8116 Deering Avenue
Canoga Park, CA 91304

*Pat. applied for

Listen . . .
you'll be hearing
more from RTR.
Cassette-deck cleaner from Allsop
Allsop Automatic's "3 at Once" cassette-deck cleaner removes residue from the heads, capstan, and pinch roller in one operation. A specially formulated solution is applied to felt pads on the cassette-shaped device, which is then inserted into the deck. The cleaning operation takes from 20 to 40 seconds. The "3 at Once" costs $5.95.
CIRCLE 147 ON PAGE 107

VHS tape introduced by 3M
Joining cassettes for Beta-format machines in 3M's video tape line is Scotch VHS video cassette tape. Designated VK-250, the tape is available in lengths for 1 or 2 hours of recording (2 or 4 hours in the slow-speed mode), costing $17.95 and $24.95, respectively.
CIRCLE 148 ON PAGE 107

ADC's universal headshell
The LMG-1 headshell, used by ADC for premounting its own pickups, is available as a separate universal mount for any phono cartridge of standard dimensions and any arm that accepts standard plug-in shells. The low-mass magnesium structure is said to provide a mounting platform of superior rigidity and freedom from internal resonances. The LMG-1 costs $14.95.
CIRCLE 149 ON PAGE 107

GRAND MASTER BY AMPEX. UNTIL NOW, ONLY THE PROS WERE READY FOR IT.

When we invented Grand Master studio recording tape, not even the most sophisticated home users had equipment that could drive tape hard enough to explore Grand Master's amazing output sensitivity. Signal-to-noise. And its low distortion.

But now, home equipment has improved dramatically. So now the time is right for Grand Master.

In cassette, 8-track, and open reel, including a specially formulated, high biased Grand Master II cassette.

You're ready for it. And it's ready for you.

GRAND MASTER BY AMPEX. WE THINK YOU'RE READY FOR IT

Ampex Corporation, Magnetic Tape Division, 401 Broadway, Redwood City, California 94063
(415) 367-8877
CIRCLE 5 ON PAGE 107
How Audio History is made.

A lot of speakers claim to be audio breakthroughs. Our new Model 14 really is. In fact, it's so unique, that before we could create it, we first had to invent a whole new family of components.

We began with a new type of horn. The Mantaray. It's the first "constant directivity" horn ever created. Conventional horns, cones and domes (including so-called omnidirectional and reflective speakers) tend to "beam," that is, narrow their angle of sound radiation at higher frequencies. This effect causes the stereo image to lose strength off the center axis and to actually wander.

Mantaray, on the other hand, delivers a clearly-defined sound wedge that keeps its strength regardless of the music's changing frequencies. You get the full spectrum of sound and the most solid three-dimensional stereo image you've ever heard. And since the sound doesn't diminish off center axis, the

Model 14 enlarges your listening area, your "stereo sweet spot."

As an extra benefit, Mantaray's precise sound focusing means your music goes in your ears—not in your drapes, walls and ceilings. Consequently, it's more likely than other speakers to sound the same in your home as it does in your dealer's showroom.

Then to give you even higher highs, we developed the first radial phase plug, the Tangerine. In contrast to conventional phase plugs with two equidistant circular slots that block some frequencies, the Tangerine's tapered slots permit a free flow of high frequencies to beyond 20 KHz.

Equally important to all this is our new Automatic Power Control System. Unlike fuse-type devices or circuit breakers, the system keeps track of the power pumped into the speaker, lets you know with a blinking light when power exceeds safe limits, and then reduces overloads automatically, but without shutting the speaker off. It's quite a system.

In addition, the Model 14 offers you super-efficiency, high-power handling capacity and exceptional dynamic range, plus a new vented enclosure with a 12-inch bass driver for a tighter, crisper low end. So that's how audio history is made. And it's all yours at a price that means the best sound value available for your home today.

For a free brochure and the name of your local dealer, write: Altec Lansing International, 1515 South Manchester Avenue, Anaheim, CA 92803.

* U.S. and foreign patents pending
For the Autophile

by Robert Angus

Excelsior! Car stereo equipment, some say, is getting better and better, as the prices go up and more motorists realize that it's possible to enjoy on the road the sound quality they're used to in the living room. It's certainly true that highway gear is getting more sophisticated.

Take the Roadstar RS-3700 in-dash stereo FM/AM radio with auto-reverse cassette deck, for example. It looks like many another car receiver, with the usual complement of tuning, balance, tone, and volume controls, and its specs are hardly impressive: power output of 5 watts per channel rms at 10% distortion, FM tuner sensitivity of less than 2 microvolts for 30 dB of quieting, system frequency response of 50-13,000 Hz. So what's the big deal, and why does the RS-3700 cost $370?

For one thing, the specs are honest and compare favorably with what other units in this price category really deliver. For another, the radio incorporates such features as automatic tuning (which searches out the next strong station on the dial), switchable AFC, a front-access antenna trimmer (for better AM reception), three-position sensitivity switch (to adjust to local, suburban, or long-distance signal), and a cassette transport designed to keep wow low. The control shafts adjust to fit the mountings in almost any car model.

MetroSound's MS-1050 preamp/equalizer also is specified in terms comparable to high fidelity components: Frequency response of 20-22,000 Hz, ±1 dB, total harmonic distortion of 0.2% at rated output, and signal-to-noise ratio of better than 65 dB. There are five bands of equalization with 12 db of boost or cut in each. The unit does not contain any amplification section: its input (5,000 ohms) can handle up to 5 volts rms. It has a muting switch, noise-reduction circuit, and loudness pushbutton. Dual meters show left and right output; LEDs indicate peak levels. The price is $177.

From Radio Shack comes a Realistic booster/equalizer, priced at $100. The booster section claims 15 watts per channel of music-power output at 1%
BUY LIKE THE WHOLESALE REFRIGERATOR

Sansui $335
AU 717 Amplifier

Dual $128
504 with Shure M95 ED Cart.

Pioneer $169
KPX 9000 Car Stereo

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THD and a frequency response of 40–20,000 Hz, ± 3 dB. The equalizer offers 9 dB of boost or cut in each of its five bands. Dual illuminated meters read output power in watts. There's a front/rear fader control for use with four speaker systems. By the time you read this, a version suitable for handling even the higher output power of General Motors' stereo units will be available.

The booster/equalizer marks the entry of the radio parts giant into a field that heretofore had been dominated by small specialty makers, with large producers of conventional car radios first appearing on the scene in numbers only last fall. It confirms that car component stereo has arrived.

As if to emphasize that point, the Mitsubishi CJ 200M stereo FM tuner specifies HIF tuner sensitivity of 2.5 microvolts, selectivity of 70 dB, distortion of 0.3%, capture ratio of 3 dB, and signal-to-noise ratio (mono, at a 0.5-milliampere input) of 65 dB. A noise-killer eliminates interference from ignition coil, spark plugs, and neon lights, and among other goodies are a muting circuit, local/distance switch, and signal-strength meter. Finally, there's a switchable stereo reception control that is said to optimize itself for receiving conditions and sound clarity.

Sounds Too Good to be Free
But it is.

See for yourself. The great catalog from Crutchfield Corporation, nation's largest car stereo specialist. Top names like Pioneer, Craig, Blaupunkt, Clarion at fantastic discount prices. Our free catalog's got it all and more: illustrated articles on installation; guides to help you choose the right equipment for your needs. Everything fully guaranteed and backed by our solid reputation for customer service and satisfaction. It sounds too good. But it is Free.

AFS/Kriket Klassik Element 0004

Component speakers. Acoustic Fiber Sound Systems (AFS/Kriket) has an assortment of drivers that includes the Element 0002 1-inch polycarbonate dome tweeter priced at $27.50, the $25 Element 0003 midrange/woofer, and a $32.50 subwoofer, the Element 0004. The 1-inch tweeter voice coil is designed to handle high temperatures and power of up to 50 watts. Crossover is capacitive with response claimed to 20 kHz. The 8-ohm midrange/woofer, which measures 5 inches in diameter and 2 inches deep, has a rated power-handling capability of 20 watts rms and a frequency range of 65–5,000 Hz. The 6- by 9-inch subwoofer, 3½ inches in depth, has power-handling capability rated at 50 watts rms and frequency response of 40–5,000 Hz.
With the graphic equalizer, you have a limited number of chances to correct an infinite number of potential problems in a recording or listening environment. You’re dealing with fixed bandwidths and fixed frequencies. You can only increase or decrease the level. When boosting or cutting frequencies, you have to settle for the nearest one or two octaves. It’s a compromise. With the parametric, you’re provided an infinite number of solutions. Bandwidth, frequency and level are each determined by you. Any musical problem can be isolated and corrected. And that’s what all the excitement’s about.

The graphic reason to buy our parametric.

At SAE, the battle has always been for complete musical control. Control that would allow you to correct for any inadequacy in any recording or listening environment.

Now the battle is over. You won.

SAE introduces the 180 Parametric Equalizer.

Actually, if you work for a recording studio, “introducing” would hardly be appropriate. You’d be working with parametrics already. Very simply, it’s a matter of flexibility and precision. And very simply, with the SAE 180, the flexibility and precision of your sound control are absolutely limitless.

We should let the parametric speak for itself.

Problem: The lead singer is overpowered by the back-up group.

Solution: Set Level control to +10dB. Sweep Frequency control until the voice is brought forward. Adjust Bandwidth control to encompass the full voice range. Tailor Level control to exact voice presence desired.

How much does a machine like this cost? How can I afford a component that can acoustically correct a system? How can I buy an electronic box that can fix a listening room and a recording at the same time?

The SAE 180 costs $250.* That’s how.

What we have is a small miracle that is also an attainable reality. Imagine: Complete, precise, musical control for the price of a common graphic.

Remember that word: Parametric. Remember that number: 180. And remember that name: SAE.

*Nationally advertised value, actual retail prices are established by SAE Dealers.
Clarion's latest is the SK-103, a three-way speaker system designed to fit in standard 6-by-9-inch mountings. It consists of an independently mounted 6-by-9 woofer plus separate 2-inch dome midrange and 1-inch dome/horn tweeter and sells for $150. Frequency response is specified as 60–20,000 Hz, ±3 dB, and power-handling capacity is rated at 30 watts. The polycarbonate mounting board is said to withstand temperatures of up to 230 degrees, which can occur on the back window ledge in summer sunshine. Screen mesh protects each speaker element.

For $35, you can adapt your stereo system to multiple speakers with the Pioneer CD-606 dual amplifier/balancer. This tiny unit contains an electronic fader for multiple-amplification applications—for example, as a front-to-back balance control—to make a multiple-speaker system easier to use without unnecessary power loss.

The Fulmer touch. Arthur Fulmer has introduced an in-dash stereo FM/AM/cassette deck that uses electronic touch buttons, instead of manually controlled knobs, to raise and lower its level and tone controls. In addition, it's possible to preprogram up to fourteen radio stations. The Ultra II Model 16-6800 uses a microprocessor to recall and center preset stations. The Ultra II claims 12 watts rms per channel, bidirectional-scan or manual station tuning, auto reverse, locking fast-forward modes, dimmable LED readout, and mono/stereo and local/distant switching. The price is $500.

Hide the evidence. Though theft of car components is not yet the grievous problem it has been for car CB and tape owners, Audiovox has made it even less grievous with its Command Module: a control box attached to a flexible arm that can be positioned at the convenience of the driver. All the rest of the electronics are hidden away in the trunk or behind the dashboard. Among the controls are electronic tuning with scan and seek modes, presets for six AM and FM stations, an LED station-frequency display, and a quartz-controlled clock that can double as an elapsed timer. It also has an automatic memory turn-on feature. The hidden electronics include an amplifier rated at 20 watts rms per channel, a four-way balance control, digitally synthesized phase-locked-loop tuning, and built-in echo/reverb. For $995, you get the Model HCGN-10, which contains all that plus a 40-channel CB radio with a choice of cassette or 8-track tape deck. For $345 less, you can skip the CB and zero in on the HCGN-20.
Free for 10 days:
von Karajan conducts Beethoven

To introduce the ultimate Beethoven Collection: all 9 symphonies plus 9 overtures including Leonore and Coriolan...50 piano, violin and cello sonatas...7 concertos...66 folk songs...18 string quartets...41 dances...6 bagatelles...7 marches...9 arias...41 lieder...Missa Solemnis...Fidelio...and much more!

Time Life Records invites you to a perfect marriage of the art of composing and performing great music: Beethoven's symphonies conducted by Herbert von Karajan.

Beethoven, the arch-romantic—his music (like his tortured soul) surging with fiery emotion. von Karajan called "the space-age maestro"—cool, precise, methodical, whether on the podium or at the controls of his private jet.

Two more different geniuses are hard to imagine. Yet the product of their "collaboration" is sheer magic—as you can now discover in a free audition of Volume I of the Beethoven Bicentennial Collection.

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In this elegant boxed set of five 12" LP stereo discs, recorded in Europe by the famous Deutsche Grammophon, you will hear the stirring Leonore Overture No. 3, as well as six complete symphonies, among them:
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Every major work Beethoven ever wrote, performed by leading virtuosos: Menuhin, Nilsson, Kempff, Fournier, Fischer-Dieskau, The Amadeus Quartet

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Yes. I would like to examine the first album of the Beethoven Bicentennial Collection. Please send it to me—for 10 days free examination and enter my subscription to the Beethoven Bicentennial Collection. If I decide to keep the first album, I will pay $19.95 plus shipping and handling. I then will receive future albums in the Beethoven Bicentennial Collection shipped at a time approximately every other month. Each is $19.95 plus shipping and handling and costs on a 10-day free examination basis. There is no minimum number of albums that I must buy and I may cancel my subscription at any time simply by notifying you.

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INTRODUCING THE EMPIRE EDR.9 PHONO CARTRIDGE.
IT SOUNDS AS GOOD ON A RECORD AS IT DOES ON PAPER.

It was inevitable...

With all the rapid developments being made in today's high fidelity technology, the tremendous advance in audible performance in Empire's new EDR.9 phono cartridge was bound to happen. And bound to come from Empire, as we have been designing and manufacturing the finest phono cartridges for over 18 years.

Until now, all phono cartridges were designed in the lab to achieve certain engineering characteristics and requirements. These lab characteristics and requirements took priority over actual listening tests because it was considered more important that the cartridges "measure right" or "test right"—so almost everyone was satisfied.

Empire's EDR.9 (for Extended Dynamic Response) has broken with this tradition, and is the first phono cartridge that not only meets the highest technological and design specifications—but also our demanding listening tests—on an equal basis. In effect, it bridges the gap between the ideal blueprint and the actual sound.

The EDR.9 utilizes an L. A. C. (Large Area Contact) 0.9 stylus based upon—and named after—E. I. A. Standard RS-238B. This new design, resulting in a smaller radius and larger contact area, has a pressure index of 0.9, an improvement of almost six times the typical elliptical stylus and four times over the newest designs recently introduced by several other cartridge manufacturers. The result is that less pressure is applied to the vulnerable record groove, at the same time extending the bandwidth—including the important overtones and harmonic details.

In addition, Empire's exclusive, patented 3-Element Double Damped stylus assembly acts as an equalizer. This eliminates the high "Q" mechanical resonances typical of other stylus assemblies, producing a flatter response, and lessening wear and tear on the record groove.

We could go into more technical detail, describing pole rods that are laminated, rather than just one piece, so as to reduce losses in the magnetic structure, resulting in flatter high frequency response with less distortion. Or how the EDR.9 weighs one gram less than previous Empire phono cartridges, making it a perfect match for today's advanced low mass tonearms.

But more important, as the EDR.9 cartridge represents a new approach to cartridge design, we ask that you consider it in a slightly different way as well. Send for our free technical brochure on the EDR.9, and then visit your audio dealer and listen. Don't go by specs alone.

That's because the new Empire EDR.9 is the first phono cartridge that not only meets the highest technological and design specifications—but also our demanding listening tests.
A "Loaded" Front-Loader


What would you choose as the most desirable "extra" features in a cassette deck? Aiwa's AD-6900U, the top of its line, probably has them all: three-head format, electrically operated controls with remote capability, timer operation in either the recording or play mode, memory rewind, memory play, user-adjustable bias and Dolby calibration, defeatable multiplex filter, mike/line mixing, and dual metering modes. And, should you have an Aiwa turntable with the special sync mechanism, the AD-6900U can be connected to it to start recording automatically when the tone arm descends onto the disc.

The metering system is exceptionally versatile. Each of the recording meters is actually two meters in one: A short pointer indicates the average signal level on a VU scale that extends from -20 to +5, and a longer needle displays the peak signal level on a second scale calibrated from -40 to +10 dB; the two pointers operate independently, so both readings are available simultaneously. In addition, the peak-indicating element can be operated in a PEAK-HOLD mode in which the pointer will maintain its maximum previous reading for approximately thirty minutes. You can preview a program, establish the absolute peak level that will occur, and adjust the recording controls accordingly. If the bouncing of two pointers within the same meter confuses you, either of them can be shut off at the touch of a button. We find the double indication useful and generally keep both in operation.

Mechanically, the AD-6900U operated flawlessly during our use tests. Lab measurements reveal unusually low flutter on this two motor deck. The speed accuracy, while somewhat dependent on power-line voltage, is within acceptable bounds. The PAUSE does not respond instantly but is reasonably fast and free of burbles and clicks.

Aiwa's combination REWIND/REVIEW and FAST-FORWARD/CUE functions are somewhat unusual among high fidelity recorders. If you are in either the play or the recording mode and you press either FAST FORWARD or REWIND, the tape begins to shuttle in the desired direction at about half the normal fast-wind speed and the playback circuitry turns on (at a reduced level to avoid damaging your tweeters). Pauses in the pro-

REPORT POLICY Equipment reports are based on laboratory measurements and controlled listening tests. Unless otherwise noted, test data and measurements are obtained by CBS Technology Center, Stamford, Connecticut, a division of Columbia Broadcasting System, Inc., one of the nation's leading research organizations. The choice of equipment to be tested rests with the editors of HIGH FIDELITY. Samples normally are supplied on loan from the manufacturer. Manufacturers are not permitted to read reports in advance of publication, and no report, or portion thereof, may be reproduced for any purpose or in any form without written permission of the publisher. All reports should be construed as applying to the specific samples tested; neither High Fidelity nor CBS Technology Center assumes responsibility for product performance or quality.

Preparation supervised by Robert Long, Harold A. Rodgers, and Edward J. Foster

Laboratory data (unless otherwise noted) supplied by CBS Technology Center

March 1979
One of the key advantages of the AD-6900U is, to our way of thinking, its bias and recording-calibration adjustments (provided individually for each class of tape) and the built-in test circuitry required for their use. In the test mode—engaged by a front-panel switch—two tones are recorded simultaneously on the right channel. One of these is at 400 Hz and serves as a reference; the other is at 8 kHz and serves to show the accuracy of the bias setting.

The separate play head reproduces the two tones, with filters directing the low-frequency one to the left meter and the high-frequency one to the right. You manipulate the appropriate bias control until the two meter indications are identical and turn a screwdriver-adjusted control, concentric with the bias knob, until the meters read 0 dB to compensate for differences in tape sensitivity and thus assure proper Dolby tracking.

You must take it on faith that the two channels will have identical characteristics and be affected equally by any adjustment, since only the right channel is used in these tests. Our lab measurements suggest the faith is well placed. The differences in playback response between the channels are virtually negligible. And the response is superflat for a cassette deck—to 15 kHz with ferric (Maxell (UDXL-1) and chrome-equivalent (TDK SA) tapes, to 17.5 kHz with ferrichrome (Sony). Precise match between deck and tape is, of course, a sine qua non for achieving such uniform response; with Aiwa's adjustment capability, we see no reason why similar results would not occur with other premium tapes.

Noteworthy as well is the absence of low-frequency irregularities in response (so-called "head-bumps") due to the contour effect of the miniature playback head used in cassette recorders—especially those employing separate recording and playback heads in the same housing. These irregularities are smoothed out in the AD-6900U by the reproducing head's "V-cut" design. Once you correct for the low-frequency equalization of a standard test tape, the AD-6900U's playback response is within $+\frac{1}{4}$, $-\frac{3}{4}$ dB from 31.5 Hz to 8 kHz on the right channel and within $+0$ dB, $-2$ dB on the left.

Among the other data, signal-to-noise ratios are about average for today's better decks—a dB or so better than that in the playback mode and 1–2 dB poorer in record/play. The Dolby circuit provides its full measure of noise reduction with but a minor effect on frequency response. Erasure and channel separation are both good, and the measured harmonic distortion remains down near 0.25% throughout the frequency range at which musical fundamentals normally occur.

The meters are calibrated to allow more than average headroom, readings of $+5$ dB on either scale result from a signal at the DIN zero-reference recording level, and this should be kept in mind when recording with the AD-6900U. Peak-level indications well in excess of meter 0 result in only a slight dulling of the sound, and indeed such recording levels are required to make maximum use of the dynamic range of the deck. Aiwa suggests maximum peak indications of $+7$ dB with ferrichrome, $+5$ with LH (ferric) tapes, $+3$ dB with chrome, and $+6$ for ferricobalts (chrome-equivalents). Based
We've just improved every record you own.

Bold, creative new technology sets new standards for clarity, dynamic range, and stereo separation.

Of course the new AT25 doesn't look like other stereo phono cartridges. It's entirely different. And not just on the outside. We've rethought every detail of design and construction. All in the interest of the smoothest, cleanest sound you've ever heard. The AT25 frequency response is utterly uniform. Definition and stereo separation are remarkable. Dynamic range is awesome. Even the most demanding digital and direct-to-disc records are more spectacular, more musically revealing.

But set our claims aside and listen. The AT25 is unexcelled for transparency and clean, effortless transient response. Individual instrumentals are heard crisply, without stridency even at extremely high levels. Even surface noise is less apparent.

The cutaway view shows you how we do it. Start with the coils. Just two, hand-wound in a toroidal (doughnut) shape. A unique shape which cuts losses, reduces inductance, and lowers imped- ance. The coils are wound on laminated one-piece cores which also serve as pole pieces. Again, losses are lower. Eddy current effect is also reduced. Which all adds up to superior transient response. It's like having the electrical performance of the finest moving coil designs, but with the high output of a moving magnet. The best of both worlds!

Each magnetic system is completely independent. No common circuits. We even add a mu-metal shield between the coils to insure no leakage between channels. Which results in stereo separation which must be heard to be believed.

But there's more. An entirely new stylus assembly is held rigidly to a precisely machined surface with a small set screw. A small detail which insures perfect alignment, no spurious resonances, and simple stylus replacement.

We treat cartridge shell resonances too, with special damping material applied to the top of the unique plug-in shell. The magnesium shell even has a calibrated adjustment for stylus overhang to insure perfect installation.

The many technical differences between the new AT25 and every other stereo cartridge are fascinating... and significant. But the real difference is in the resulting sound. It's almost as if you had plugged your stereo system directly into the studio console. Every subtlety of artistic expression is intact, no matter how complex—or simple—the music, no matter how loud—or soft—the performance. It's as though a subtle barrier had been removed adding clarity and presence to every record you own.

A cartridge of this sophistication and high quality cannot be produced quickly. Initially the AT25 may be in short supply. But your patience will be rewarded with performance which will send you back through your record library to discover nuances you never suspected to hear. And you'll eagerly await the sonic splendors of tomorrow's digital recording techniques.

The new AT25 stereo phono cartridge from Audio-Technica. It makes every other component you own sound better, including the records!

Model AT25 Dual Magnet™ Stereo Phono Cartridge $275
on our experience, these levels seem to fall close to the 3% distortion point and thus can be considered the maximum safe midrange operating level. At first, instinct prompts the recordist to keep peak meter readings closer to the traditional 0-dB "ceiling"; but once you teach yourself to follow Aiwa's advice, the superb metering makes it easy to produce excellent recordings with this deck.

Our choice of tape for it, based both on listening and on lab measurements, is the ferrichrome; it extracts far more performance from the two-layer product than most decks do. But this is not to denigrate its performance with premium ferrics and ferricobalts—it's close to the best we've experienced with these tapes as well. In fact, after the simple bias adjustment, we suspect the AD-6900U will do about as well as can be done with virtually any tape.

The Aiwa AD-6900U ranks as one of the finest cassette decks we have used. It stands comparison with some of the most expensive three-head decks on the market, and its features and versatility place it almost in a class by itself.

CIRCLE 133 ON PAGE 107

Mitsubishi’s High-Class Tuner/Preamp


Like spacecraft, Mitsubishi separates often are designed so that they will “dock”—physically lock together to form larger assemblies. Thus, a preamp can dock with a power amp to form an integrated amp, or a basic power amp can dock with a set of power output meters that allow its behavior to be monitored. Not surprisingly, the Mitsubishi scheme includes dockable receivers. The key component is the DA-C20 tuner/preamplifier, which can mate with either of two basic power amps. But it is available by itself, and we tested it that way.

Since the DA-C20 follows Mitsubishi’s "dual monaural" concept (in which identical self-sufficient modules for each channel are combined for stereo), the organization of the controls is somewhat unusual. Each preamp section contains its own bass and treble controls, tone-defeat button, and output level control—the last pair serving to adjust channel balance. The attenuator (volume control), selector, and other switches affect both channels, and of course there is but a single AM/FM tuner section.

Data wrung from this product in lab testing suggest a fine performer indeed. At an output level sufficient to drive most power amps to their outer limits, all measured forms of noise and distortion are negligible, and clipping does not occur until levels are pushed almost 20 dB higher still. Frequency response is as flat as can be throughout the audio band, with signs of incipient rolloff just showing at 10 Hz and 100 kHz. The sensitivities of the various inputs appear to be well chosen to avert interface problems, and noise is very low in all of them. The built-in head amp for moving-coil cartridges stands out in this respect. RIAA equalization error is small, and both the moving-coil and fixed-coil phono inputs have generous overload margins.

The FM tuner section reaches 50 dB of quieting in mono or stereo at signal inputs that are about par for fine tuners. Stereo reception, which remains muted until approximately 40 dB of quieting has been achieved, reaches the luxurious 60-dB quieting level with an input signal strength that should be readily available in most areas. Spurious products of the multiplex decoding process (19 and 38 kHz) are well suppressed, and the ultimate signal-to-noise ratio is excellent.

The DA-C20’s FM section includes a switchable bandwidth, a feature whose popularity seems to be on the upswing. With the bandwidth set to NARROW, selectivity is adequate for dealing with all but the most pathological of reception conditions—for example, a weak distant station sandwiched by two local stations on adjacent channels. Distortion, already adequate in the narrow mode, is further improved by the wider bandwidth. Frequency response is unusually accurate in both mono and stereo; stereo separation is excellent with the NARROW bandwidth and, if anything, even more so with WIDE.
Mitsubishi DA-C20 Tuner/Preamplifier

Tuner Section

Capture ratio

wideband mode 14 dB
narrowband mode 1 1/2 dB

Alternate channel selectivity

wideband mode 40 dB
narrowband mode 72 dB

THD + N. wide

L ch R ch mono
80 Hz 0.25% 0.22% 0.12%
1 kHz 0.13% 0.13% 0.12%
10 kHz 0.80% 0.80% 0.16%

THD + N. narrow

L ch R ch mono
80 Hz 0.50% 0.50% 0.13%
1 kHz 0.33% 0.34% 0.22%
10 kHz 1.0% 1.0% 0.18%

IM distortion 0.06%

19-kHz pilot -61 1/2 dB

38-kHz subcarrier -64 1/4 dB

S/N ratio (at 65 dBF)

stereo 68 dB
mono 75% dB

Frequency response

L ch +1/2, -1/2 dB, 20 Hz to 15 kHz
R ch +1, -1 1/4 dB, 20 Hz to 15 kHz
mono +1, -1 1/4 dB, 20 Hz to 15 kHz

Channel separation, wideband mode

>30 dB, 125 Hz to 3 kHz
>28 dB, 51 Hz to 15 kHz

Channel separation, narrowband mode

>30 dB, 200 Hz to 1.5 kHz
>28 dB, 57 Hz to 10 kHz

Preamplifier Section

Output at clipping (channels driven simultaneously)

L ch 19.0 V
R ch 19.0 V

Frequency response

+0 dB, 20 Hz to 40 kHz
+0, -1 1/2 dB, 10 Hz to 100 kHz

RIAA equalization

+1/2, -0 dB, 20 Hz to 20 kHz

Input characteristics (re 0.5 V, noise A-weighted)

S/N ratio 90% dB

MC phono 0.052 mV
phono 1.3 mV 82 dB
aux 76.0 mV >96 dB
tape 1, 2 76.0 mV >96 dB

Phono overload (clipping at maximum gain)

moving-coil input 12 mV
standard (fixed-coil) input 290 mV

THD + N (at 2 volts output) <0.003%, 20 Hz to 20 kHz

IM distortion (at 2 volts output) 0.001%

Subsonic filter -3 dB at 17 Hz, 6 dB/octave

Used as the control center of a music system, the Mitsubishi strikes a good balance between flexibility and ease of operation. The tone controls, which have fixed inflection points, are indexed in 2 dB steps and are adequate without being fussy to use. The tape monitor facilities accommodate two decks and allow dubbing in either direction. The unit can accept two turntables, provided that you are willing to use a moving-coil pickup in one and a fixed-coil type in the other. Low-frequency warp signals are adequately attenuated by the subsonic filter, and the nibble that it takes out of the audible range will, in our opinion, pass unnoticed. Useful mainly when the DA-C20 is docked to a power amp, the speaker output buttons act then as they would in any receiver, to connect one or two pairs of speakers to the power amp section, when both buttons are released, there is no feed to the power amp, so they function as a muting switch when the DA-C20 is used as a separate.

FM tuning is convenient, thanks to the highly legible signal-strength and channel-center meters. The function of the latter is partially duplicated by a red LED at the left of the tuning dial, which indicates "lock," but the two seem to agree well. Although we do not find its indications a model of accuracy, the circular tuning dial is also easy to read and operates with no appreciable backlash. The calibrations on the rotating dial run "backward" (right to left), but this oddity should be easy to assimilate for most users. Stereo reception is identified by a second LED to the right of the tuning dial.

To allow the antenna to be rotated for minimum multipath interference, the instruction manual suggests that the MULTIPATH outputs on the back panel (intended primarily for use with an oscilloscope) be connected to the AUX inputs: VERTICAL to the right channel, HORIZONTAL to the left. Then, after the unit is switched to AUX and the left channel is silenced via its OUTPUT control, the antenna is rotated until the sound from the right channel is at a minimum. We found that switching to AUX kills all FM outputs, but if you substitute one of the tape monitors for AUX, the procedure works very well.

Audibly, the DA-C20 is a competent performer indeed. Both of the phono inputs seemed to match our cartridges well and were extremely quiet to the ear. The FM section, no shock at all in the narrow mode, does receive a subtle enhancement from the wide bandwidth. While the unique feature of this unit is its ability to dock with one of the Mitsubishi amps to form a receiver with either 20 or 21 1/4 dBW (100 or 150 watts) per channel, it stands well as a separate component. If its capabilities and style appeal to you and you want to purchase it, the fact that you love the power amp you’ve got should not deter you in the least.

CIRCLE 135 ON PAGE 107
Straight-Line Tracking in Unique Style — and from ReVox

ReVox Model B-790 two-speed (33 and 45 rpm) single-play tangential-tracking turntable ensemble, with base and dust cover. Dimensions: 17 ¾ by 14 ¾ inches (top plate), 5 ½ inches high, with cover closed; with dust cover open (45 degrees), 11 ½ inches additional clearance needed vertically, none at back; approx. 4-foot nonremovable signal cables. Price: $899 with Ortofon M-20E, AKG P-8E, or P-8ES cartridge; for other cartridge options, check your local dealer. Warranty: “limited,” two years parts and labor. Manufacturer: Willi Studer, Switzerland/W. Germany; U.S. distributor: Studer/ReVox America, inc., 1819 Broadway, Nashville, Tenn. 37203.

Most often, record-playing systems that drop the traditional pivoted arm in favor of a linear tracking mechanism that allows the cartridge to remain tangent to the record groove throughout play have been somewhat complex, touchy mechanisms designed, if not for technocrats, at least for the very knowledgeable. (After all, who else would understand that this would help to reduce tracing distortion to a minimum—and who else would appreciate the difference?) ReVox apparently believes that there is a significant number of (well-heeled) serious listeners who care about the subtle improvements in performance that tangential tracking offers but don’t want to trouble themselves beyond placing a record on the platter and pushing a button or two, for the B-790 labors mightily to permit the user to ignore its inner workings.

As supplied to us, the turntable was fitted with the Ortofon M-20E pickup, with which we did all our testing. But, says ReVox, any of an increasing number of pickups for which the factory has designed the necessary balancing hardware can be fitted by an authorized dealer, who is also responsible for minor final assembly. Diehard cartridge swappers will be relieved to know that ReVox plans to offer a universal mounting kit that will allow any pickup, with the exception of some of the larger moving-coil types, to be fitted by the user. Yet judging from the instructions for stylus renewal, changing the cartridge would be complicated enough to inspire second thoughts about purchasing this turntable in someone who likes to change often. Adjustment of vertical tracking force and stylus tip clearance is also more difficult than usual, but both settings are made when the cartridge is installed and need not be touched thereafter.

According to the lab data, the ReVox offers a level of performance entirely consistent with its polished image. Its rotational speed is as exact as the lab can measure at both 33 and 45 rpm and is unaffected by credible extremes of line voltage. Set in its variable mode (it is normally locked to a quartz-controlled reference oscillator), the speed can be varied a little more than a semitone in either direction. Flutter data are excellent, and, with the inward motion of the cartridge under servo control, the question of arm friction does not even arise. Similarly, because of the tangential tracking, antiskating bias is unnecessary. Audible rumble (ARRL weighted) is suppressed considerably better than our unofficial standard requires.

The vertical resonance of the factory-mounted Ortofon cartridge in conjunction with the ReVox arm is virtually ideal in its location but not very heavily damped. This works well as a practical matter, for the resonance is not close to any warp signals that might excite it. Because of its extreme lightness, the “arm” (if an aluminum mounting plate just over 1½ inches long can be called such) is almost out of the equation, leaving the resonance essentially that of the pickup alone.

In its operation the ReVox is simplicity itself. All controls are accessible with the dust cover closed, and in this machine the design of the tone arm makes it impossible for static electrical

NEW MEASUREMENT STANDARDS

In making comparisons between current reports and those published in the past, readers are cautioned to pay particular attention to the reference levels and similar test criteria cited. S/N ratios for electronics, in particular, are measured very differently now that we have adopted salient features of the new IFH amplifier-measurement standard. While we believe that the new technique (which also implies a saner approach to loading of all inputs and outputs) will result in measurements that more perfectly reflect audible, in-use effects, they cannot be compared directly to the numbers resulting from the former, more conventional lab measurements.
ReVox B-790 Turntable

Speed accuracy no measurable error at either speed for 105, 120, or 127 VAC

Weighted peak flutter (ANSI) average 0.03%
maximum 0.055%

Total audible rumble (ARLL) -64 dB

Charges to affect the tracking force. After you put a record on the platter and swing the arm carrier into place, pushing a button brings the stylus into contact with the groove. A light even goes on to let you see where the stylus tip is located. If you don’t like the spot where it lands, push the same button and it lifts off again. A second button moves the cartridge toward the center of the disc, and a third moves it back toward the outside. At the end of a side, the cartridge lifts off automatically and returns to its original position.

Especially impressive is the degree to which the ReVox is error-proof. If you try to move the cartridge in while the stylus is in contact with the disc, it automatically lifts up and returns to the outside of the disc. The stylus tip is always in contact with the disc, even when the record is played at男istic speeds.

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A Great Middleweight Amp


Hot on the heels of Hitachi’s Class G design, about which so much has been written (see our review of the SR-2004 receiver, December 1978), comes the “world’s first power-MOSFET amplifier” from the same manufacturer, represented by Models HMA-7500 and HMA-9500. The HMA-7500 provides adequate power capacity—18% dBW (75 watts) per channel; the HMA-9500 increases this by only 14% dB to 20 dBW (100 watts) per channel at a price almost three times as great. Such disparities in value testify to the newness of the power MOSFET device and the apparent difficulty in coaxing high power levels from it. For obvious reasons, we chose to review the HMA-7500.

The theoretical advantages of using field-effect transistors in power amplifiers—extremely fast switching speed and better linearity—translate into extremely low high-frequency distortion, and this presupposition is borne out by bench tests of the HMA-7500. Although rated at 0.01% THD at full power over the normal band, the amp touches that level only at 20 kHz, where the harmonics lie well above the audible range. Over most of the audio band, the THD+N averages only about one-quarter of the manufacturer’s rating.

Frequency response can best be described as “theoretically perfect,” with no sign of rolloff even at 100 kHz. The fact that this perfection is achieved with negligible high-frequency harmonic distortion at full power suggests an extremely fast response time. A choice of two modes of coupling is provided: direct and capacitor, the former suggesting response down to DC. In the capacitor-coupled mode, response is down 1½ dB at 6 Hz. In the direct-coupled mode, the HMA-7500 reproduces both low- and high-frequency square waves perfectly—a technical triumph, if not, in our opinion, a revealing criterion for music reproduction.

With both channels driving 8-ohm loads, the amplifier attains an output-power capability of 19½ dBW (90 watts) per channel at clipping and has dynamic headroom of 1¼ dB, implying the ability to handle music peaks to 20½ dBW (110 dB).
Avid’s All-Out Assault on Diffraction


In pursuit of the ethereal, loudspeaker designers have tried everything from exotic polymers to vibrating plasmas. The object has been the same: to free the sound from the confines of the enclosure so that it seems to exist, miraculously, in space. By studying the causes of “boxlike” sound, Avid has concluded that the prime culprit is, indeed, the box itself—specifically, the sharp corners that characterize typical enclosures. Sound waves traveling along the front surface of the enclosure are diffracted or bent as they reach the edge, creating the equivalent of secondary sources. Our ears interpret these diffraction patterns for what they are and superimpose the dimensionality of the box upon the sound field. Hence, Avid’s new Minimum Diffraction Loudspeaker series, of which the M-330 is the top model. Avid’s solution to diffraction is straightforward: Eliminate the sharp edges. This was accomplished by mounting the midrange and tweeter drivers within Optimum Dispersion Couplers—flared surrounds that create smooth transitions between the drivers and the grille assembly. The drivers and couplers fit snugly within cutouts in the grille frame. Except for these cutouts, the grille cloth is backed by a solid board that extends the couplers right along the front panel itself, so that the sound waves will make a smooth transition to the room, and the edges of the grille are rounded to minimize edge diffraction. Thus the grille is an integral part of the speaker design and must be kept in place for correct operation of the system.

(continued on page 47)
There are few stereophones of any kind that can match the full-bandwidth performance of the Koss Pro/4 AAA. That's because the Triple A's oversized voice coil and extra large diaphragm reproduce recorded material with a lifelike intensity and minimal distortion never before available in dynamic stereophones.

With a frequency response from 10 Hz to 22 kHz, a highly efficient element and a perfect seal for low bass response to below audibility, the Triple A lets every note blossom to its fullest harmonic growth. You'll hear so much more of your favorite music, you'll think you're listening to a whole new recording.

Unlike other stereophones, the ear cushions developed for the Pro/4 Triple A represent a breakthrough in both comfort and acoustical engineering. Through extensive studies on how stereophones are actually worn, Koss engineers were able to reduce lateral pressure with a direct contour Pneumalite® earcushion that not only offers soft pliable comfort, but also creates an ideal environment for minimizing the linear excursion of the driver. Thus, the driver is able to produce any volume level without distortion. So you'll hear all the fundamental and harmonic frequencies exactly as they were recorded.

In addition, Koss has designed a special Pneumalite® dual suspension headband that creates a feeling of almost weightlessness even over periods of extended listening. It makes wearing the Triple A's as pleasureable as listening to them.

Why not stop in at your audio specialist and see why the Koss Pro/4 Triple A belongs in a class by itself. Or write for our free, full-color catalog c/o Virginia Lamm. Better still, listen to a live demonstration of the incredible Sound of Koss with your favorite record or tape. We think you'll agree that when it comes to the Pro/4 AAA and other Koss Stereophones and CM loudspeakers, hearing is believing.
**Infinity makes a small contribution to the state of the art.**

**InfiniTesimal!**

Here’s everything you’d expect from Infinity. (Except the size, 11 x 6 1/2 inches.)

Here’s the unparalleled clarity, warmth and smoothness of our larger speakers; inner details you never heard before from favorite recordings; and imaging so accurate you could actually place where people are coughing in the audience.

**The dual-voice-coil advantage in an advanced 5-inch woofer.**

Our exclusive Infinity/Watkins Woofer uses dual-voice-coils to smooth out and extend bass response. And it lets your amplifier develop more power at low frequencies than any other mini speaker. All this — and our highly-acclaimed EMIT Electromagnetic Induction Tweeter, too!

**The end of paper cones and their distortion**

Because paper and exotic plastic cones create vibrations of their own, adding unacceptable colorations to the music, InfiniTesimal introduces a superior new cone material: polypropylene.

It adds essentially no sound of its own, being almost perfectly acoustically inert. Its low mass and ideal damping characteristics result in dramatically improved musicality.

InfiniTesimal. In total — a small, magnificent 2-way system with unusual musical warmth, focus and transient attack. At about $175 each, a mini-speaker of uncompromising quality and accuracy for your home or vehicle.

True Infinity sound. From a definitely finite space.

Manufactured by Infinity under license from Watkins Engineering, Inc.

*Suggested retail price, optional with dealers. Slightly higher east of the Mississippi.

The Avid 330 is a three-way acoustic-suspension design of modest efficiency and good music-power-handling ability. Although continuous tones drive distortion above 10% at sound pressure levels above 108 dB (corresponding to an 18 dBW, or 63-watt, input at 300 Hz), the speaker delivers much higher sound pressure levels on simulated music signals before the distortion becomes excessive.

At the most demanding levels produced by a 0 dBW (1 watt) input, the harmonic components generally remain below 1.5% from 50 Hz to 10 kHz and below 0.5% over much of the audible band. In the midbass (130 to 400 Hz), however, the distortion averages a rather high 1% to 1.5%. At a level about 10 dB higher, the less intrusive second harmonic content increases more precipitously than the third harmonic and the total harmonic distortion is 4% or less from 50 Hz to 10 kHz.

Our lab measurements are based on a nominal-impedance rating of 5.7 ohms—the minimum that occurs above bass resonance. But Avid's 8-ohm rating is justified, since the impedance remains safely above that level at all frequencies above 380 Hz. We see no reason to advise against parallel operation of pairs of 330s.

Crossover frequencies are specified as 500 Hz and 6 kHz. Lab data reveal a 3-dB hole at the woofer/midrange crossover and a 5-dB notch in the on-axis response at 8 kHz. The high-frequency depression fills in partially when the total acoustic output of the speaker is taken into account. With both of the three-position controls set at FLAT (the middle position for both), the average omnidirectional response is within ±2½ dB from 50 Hz to 40 kHz, with a gradual rolloff—averaging about 3 dB per octave—above 2 kHz.

The virtues of Avid's design should be discernible in the Model 330's tone-burst response and in its dispersion characteristics. Indeed, the tone-burst photos strike us as indicating better-than-average performance in this regard. Furthermore, the "tracking" of the front-hemisphere and omnidirectional response curves is almost ideally parallel, suggesting no beaminess, though the on-axis response does gradually diverge from the other two at high frequencies. Our listening tests confirmed an increase in apparent brilliance directly in front of the speaker but very uniform dispersion elsewhere.

In our listening room, we prefer to use the 330 with maximum tweeter sensitivity. (Perhaps harder surroundings would incline us toward the FLAT position of the tweeter switch.) And we agree with Avid that the grille should be kept in place: It seems to smooth out the highs substantially. Also attributable to Avid's Minimum Diffraction design is the fact that the 330 affords much better image depth than the average speaker.

Bass attack is very tight; drums and other low-frequency transients are handled without tubbiness or overhang. We did note a slight muddiness on continuous bass tones (bass viol, cello, etc.)—evidently due to the distortion measured in the lab, since the effect depends on the listening level.

In the higher reaches of the spectrum, the brass instruments are well handled, if somewhat piercing on certain notes. Their metallic flavor seems to tinge other sustained sounds: Violins have some steeliness to their sheen, cymbals sound more wiry than airy, and the higher voices tend to pick up a metallic or breathy tinge. This tendency toward brightness does not imply the exaggerated transients of some loudspeakers, however; indeed, the 330 hones a little of the incisive edge off the sound of the xylophone, for example.

Each speaker imposes something of its own personality on the sound, and that of the Avid 330 seems, on balance, more self-effacing than most. Far from drawing attention to itself with underdamped, boomy bass or hyped transients, it competently creates a deep, wide stereo picture with a minimum of frame.

**CIRCLE 132 ON PAGE 107**

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**The Appropriately Named Specialist Preamp**

**Source Specialist** stereo/mono preamplifier with built-in noise-elimination and expander circuitry, in metal case with wood ends. Dimensions: 17½ by 2 inches (front), 12 inches deep plus clearance for connector plugs. AC convenience outlets: 1 switched, 1 unswitched. Price: $455; Model PNS (Preamplifier/Noise Suppressor) without mono/78 features, $390. Warranty: "limited," three years parts and labor. Manufacturer: Source Engineering, P.O. Box 506, Wilmington, Mass. 01887.

It had to happen. Even in the Fifties, as the LP was sweeping up the few remaining pockets of resistance to its pre-emptive position as the modern music-reproduction medium, the murmurings began against shutting out altogether the possi-
bility of playing pre LP discs on current equipment. In the Sixties, the balance began to shift within the small group who still cherished the older discs, as diehards retired in favor of newcomers flushed with new discovery of the old; and since then the ranks of collectors appear to have been gradually on the increase. Now Source Engineering has taken a basic modern stereo preamplifier and added ancillaries designed from the ground up as state-of-the-art antiquarianism: the best, in its opinion, that modern technology has to offer to the collector of old records without compromising the playing of modern program sources. As such, the Specialist is a unique product, and one that immediately piqued our curiosity.

The genesis of the Specialist is a bit complicated. Source began with the noise-elimination circuitry. The Source Noise Suppressor, still available as the Model SNS, was accompanied by the Model UEA phono preamp/equalizer designed for use with both stereo and antique recordings. (See "Get the Noise out of Your System," HF, July 1977.) Then came the Volume Range Expander, a relatively sophisticated circuit of its type in that the user has some control over attack and release times, and if you Model PNS preamplifier, incorporating an updated version of the SNS. The Specialist is, in a sense, Source's apotheosis; in a single unit it includes virtually all the features of the previous models plus a wrinkle or two of its own. It is listed as a special-order item (four to six weeks' delivery), whereas the others should be available from stock.

The selector is divided into stereo and mono signal sources. Only the mono ones are fed via the filters and noise suppressor; of those, only the mono phono signals go via the basic equalizer, and only some of the equalizer positions feed the treble adjustment—which is part of the equalizer rather than a conventional treble control. In fact there are no tone controls in the bass or the treble. An outboard equalizer might easily be added if you design them, but the specialist presupposes that you are not one to diddle—except in one respect—when properly reproduced modern signal sources and need the adjustments only to bring nonstandard sources into line with current practice.

That one exception is the expander. While we recognize the stunning effects of limiting and compression—manual or automatic—in so much of the program material we hear, we have yet to come across an expander or peak unlimiter (Phase Linear's term) that can consistently right those wrongs and that will not, if applied unintelligently, introduce even more lurid departures from natural musical dynamics. Source acknowledges the danger; in the Specialist's manual it points out that the ear seems to be much more sensitive to expansion than to compression. Thus it has chosen to moderate a rate of downward expansion and a ratio that is only a little higher for the upward expansion. The 'break' between the two is determined by the setting of the THRESHOLD control, and an LED next to it lights whenever the signal rises above the threshold.

We find the UPWARD mode (in which there is no downward expansion) the most commonly desirable, generally with the threshold adjusted to light the LED only on the very loudest passages—thus adding a little punch to the climaxes but leaving the dynamics otherwise unchanged. For drastically compressed material (such as TV audio), the UP-DOWN mode sometimes brings life back to the dynamic mush, but its use is problematic at best: we consider it a sort of extreme uncision for monobound sound. It adds up to 14 dB to the total dynamic range, which means (among other things) audible pumping of any high-level continuous noise components like hiss or hum.

The most fascinating aspect of the Specialist is, by a large margin, its mono section. Space prevents a full discussion of all that it contains and how its various subcircuits are interrelated in use. Suffice it to say that a great deal of thought has gone into their organization and that, whether or not we agree with the designer's decisions, it is obvious that none has been lightly made. Let's begin with those with which we disagree.

There are two phono inputs on the back panel with a selector switch nearby. Since a collector is, of all users, the likeliest to need two turntables (one for modern LPs, one for antique discs), we would have preferred the switch to be on the front panel even at a noticeable increase in price. (Electronic switching might be obligatory to prevent long internal runs of the low-level wiring.) We also might have preferred to have a DEFECT switch on the noise suppressor, though this thought is occasioned by response roughness and increased distortion (both apparently attributable to the noise suppressor) in lab measurements made through the mono phono circuit with the noise suppressor at its minimum position, rather than by any audible shortcoming in this operation mode.

The switch would provide reassurance, if not sonic improvement.

Outside of these considerations, our reaction to the Specialist's specialized features is almost unmitigated admiration. The equalization options, which are broader than those in the UEA, can produce fine results with just about any oddball disc you may want to play. For 78s, there are bass curves with turnovers at 1 kHz ("A"), 500 Hz ("B"), and 250 Hz ("C"), all with treble equalization that can be varied from flat to the fairly severe de-emphasis needed for some late 78s, plus an FFRR position tailored (with fixed treble EQ) to the British Decca (and,

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**Source Engineering Specialist Preamp**

<table>
<thead>
<tr>
<th>Output at clipping (both channels driven)</th>
<th>L ch</th>
<th>R ch</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>6.9</td>
<td>7.2</td>
</tr>
</tbody>
</table>

| Frequency response*                  | ± ⅓ dB, 40 Hz to 70 kHz;       |
|                                      | ± ⅔ dB, 20 Hz to 100 kHz        |

| RIAA equalization*                  | ± ⅔ dB, 50 Hz to 20 kHz;       |
|                                      | ± ⅔ dB, 20 Hz to 20 kHz         |

<table>
<thead>
<tr>
<th>Input characteristics (re 0.5 V, noise A-weighted)**</th>
<th>S/N ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>phono</td>
<td>64½ dB</td>
</tr>
<tr>
<td>mono &quot;microgroove&quot;</td>
<td>72 dB</td>
</tr>
<tr>
<td>tuner, aux</td>
<td>80 ½ dB</td>
</tr>
<tr>
<td>mono aux</td>
<td>79 ½ dB</td>
</tr>
</tbody>
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| Phono overload (clipping point)                    | 66 mV at 1 kHz |

<table>
<thead>
<tr>
<th>THD + N (at 2 volts output)</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>stereo</td>
<td>&lt;0.11%, 20 Hz to 20 kHz</td>
</tr>
<tr>
<td>mono</td>
<td>&lt;0.35%, 40 Hz to 20 kHz</td>
</tr>
</tbody>
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<table>
<thead>
<tr>
<th>IM distortion (at 2 volts output)</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>stereo</td>
<td>0.075%</td>
</tr>
<tr>
<td>mono</td>
<td>0.45%</td>
</tr>
</tbody>
</table>

| 25-Hz intrasonic filter                             | -3 dB         |
| 140-Hz rumble filter                                | -3 dB         |
| 3-kHz high filter                                  | -3 dB         |
| 7-kHz high filter                                  | -3 dB         |

*Initial production models, measured with 10,000-ohm load at tape output. See text.

**With gain set for "1.0-volt" output. In the higher gain setting ("3.16 volts"), sensitivities increase proportionately (that is, measured numbers are approximately one-third of those shown). S/N ratios remain the same for phono inputs and decrease by about 2 dB for the high-level inputs.
Why is the Fisher ST430 one of the world's best-selling new speakers?

Probably not because of its looks (although it is unusually handsome). Probably not because of the Fisher name (although millions of people know and trust our reputation for quality). And probably not because of its reasonable $219.95* price (although you could spend a lot more and get a lot less).

No, what sells a speaker is sound, pure and simple. And the ST430 was created to sound better than any speaker in its class. How Fisher did it is the subject of this ad.

We began with our own Model 1050 10" woofer. By itself, it does a creditable job of reproducing bass. But we added our Model 800 passive bass radiator. It's computer-tuned to the woofer and enclosure parameters, and effectively doubles bass output while reducing distortion, giving the ST430 low-end "sock" rarely found in a speaker of its size.

A Fisher Model 500 high-flux cone midrange driver delivers smooth, uncolored response in the all-important mid frequencies, and the Model 301.3" low-mass tweeter provides excellent dispersion and precise transient response for brilliant, "live" sound.

But just as important as the quality of the individual drivers in the ST430 is the way they are matched and interfaced. There's no "textbook formula" for this phase of speaker design; it takes decades of experience, tireless experimentation, and hundreds of hours of evaluation with trained ears and sophisticated equipment to produce an optimum design. Most speaker companies simply don't have these resources available (which accounts for the dozens of high-priced speakers on the market that can't match the ST430's sound).

So if you're looking for outstanding value in a medium-sized, medium-priced speaker system, by all means listen to the Fisher Studio Standard® ST430. You'll find it at selected audio dealers or the audio department of your favorite department store. A few minutes of listening will show you why it's one of the most successful new speakers in Fisher's 42 year history.

*Manufacturer's suggested retail value. Actual selling price determined solely by the individual Fisher dealer.
The Bose® 901® Series IV: A new approach to room acoustics creates a major advance in performance.

It's well known that living room acoustics are a major factor in how any speaker will sound in your home. Recently, an ambitious Bose research program analyzed speaker performance in dozens of actual home listening rooms. The study showed that, while rooms vary greatly, their principal effects can be isolated to specific types of frequency unbalances.

Based on this research, the electronic Active Equalizer of the new Bose 901® Series IV speaker system has been totally redesigned. New controls allow greater capability for adjustment of room factors than conventional electronics, and make possible superb performance in almost any home listening room.

These new room controls also let us develop a basic equalization curve with no compromises for room effects, allowing still more accurate tonal balance. In addition, an important improvement in the design of the 901 driver makes possible even greater efficiency and virtually unlimited power handling.

The 901® Series IV Direct/Reflecting speaker creates a life-like balance of reflected and direct sound.

These innovations combine with proven Bose concepts to create a dramatic advance in performance: in practically any listening room, with virtually any amplifier, large or small, the 901 Series IV sets a new standard for the open, spacious, life-like reproduction of sound that has distinguished Bose Direct/Reflecting® speakers since the first 901.
later, London) 78s recorded after 1945. Switching to MICRO-GROOVE automatically increases preamp gain (to compensate for the lower recorded velocities involved) and matches bass response to the RIAA curve, though the treble remains adjustable. The range is not great enough to tame such "nasty" high ends as those of the early Oiseau-Lyre LPs, but otherwise a reasonable match can be found to the many recording curves used in the Fifties before the RIAA standardization.

There is a fixed and very steep 25-Hz filter in the mono section to suppress infrasonic rumble, plus a 140-Hz option that also is very steep and does an excellent job of excluding the often horrendous audible rumble in early acoustic discs. The treble filters—again, exceedingly steep—are (like those in the SNS) based on the noise suppressor's passbands and do a superb job on discs with lots of high-frequency noise and little high-frequency signal. The noise suppressor itself is very similar to the SNS: an "aggressive" variable-bandpass device whose filters (at 500 Hz, 3 kHz, and 7 kHz) open and close in response to program content and whose sensitivity (in distinguishing noise from signal) is adjustable. Its aggressiveness implies obvious reduction in perceived noise and concomitant obviousness of its operation—especially when it is poorly adjusted or the dynamics of the program source are inappropriate to its behavior pattern. In particular, forward recordings of solo voice or those with periodic noise (such as "swishes") may produce sharply exaggerated noise effects that are more annoying than the relatively continuous noise with the suppressor off. The time constants have been lengthened since the original SNS, making the filtering action somewhat less obvious, however, and with discriminating use the noise suppressor can give admirable results in the right circumstances—and for the right listeners.

Special mention should be made of the manual, which not only explains all the intricate workings of the preamp in admirable detail and clarity, but also provides a wealth of information about the history of recording technology that is of real value to the collector, whether or not he owns the Specialist. (The manual is available separately for $10.) Some readers may consider it opinionated on some points (its quirks include an insistence on "condenser" instead of the long-established "capacitor"), but it betrays Source Engineering's profound commitment to its chosen field.

This is not to say that the Specialist is only for specialists. It is, in addition, a competent modern stereo preamp with a few unusual features. One is a back-panel switch that increases output by 10 dB for use with amplifiers of uncommonly low sensitivity. Another is the constant-output balance control, which increases one channel while it reduces the other so that the overall loudness in the listening room will not change with the balance. (Most preamps deliver full gain in both channels at the normal setting, whereas the constant-output design reduces both by 6 dB and thus may give up as much as 6 dB in signal-to-noise ratio, depending on where most of the noise is generated.)

By comparison with standard modern preamps, the Specialist does rate a few cautions, however. Early samples (including ours) are designed to feed tape decks with input impedances of at least 20,000 (and preferably above 50,000) ohms. These figures are reasonably chosen, but the current IHF standard and the practice CBS is to load the tape outputs with 10,000 ohms to insure that any potential misbehavior with preternaturally low recorder impedances will be caught. The result with the Specialist is a slight rolloff at the extreme low end. While we do not consider it of great significance, it does mean that the preamp is not strictly within spec with this test technique, and Source has increased its output capacitance in subsequent production so that the spec will hold up even with the 10,000-ohm load.

Then there is the question of noise—which is very low in normal operation but can be compromised by the unwary. The Specialist (and the UEA before it) is unusually sensitive to external hum fields and may become unacceptably noisy if placed on or immediately below another component with inadequate or even marginal power-transformer shielding. And in our home-tested sample we judged switching transients (particularly in going between the mono and stereo portions of the selector) and volume-control noise (audible near the maximum output, but only when the knob is moved) to be less well controlled than average.

All in all, Source has shown striking individuality and inventiveness in its approach. The "standard" user will, of course, want to skip its extra features and consider, instead, the Model PNS—which, on the basis of the Specialist's qualities, should be a competent performer. But for the collector of records (or tapes, since the mono AUP makes the preamp's exceptional features available to them) whose sonic properties are less than modern, the Specialist stands utterly alone. Not only does it do a fine job in most, if not all, of the special functions it undertakes, but Source Engineering is the only company undertaking them to any significant degree. A quixotic enterprise, some will call it, but one that the Sancho Panzas who collect records can only cheer about.

CIRCLE 156 ON PAGE 107

Manufacturer's Comment

We invite rebuttal from those who produce the equipment we review. The comments printed here are culled from those responses.

Crown DL-2 Stereo Controller preamplifier system (December 1978): We would like to supply clarification on three points in your review. The moving-coil preamp and remote-control modules will not be available until mid- and late-1979, respectively.

The DL-2's interface for computer control is not dependent upon use of the virtually standard S-100 buss. Any computer that can supply the required three eight-bit programmable input/output ports is suitable.

The review contained the statement, "The MUTE (which is total) and POWER buttons function similarly and are also remotely controllable." The MUTE itself cannot be remotely controlled (as stated in the manual supplied to HF), though the same effect can be obtained by remotely setting the level to its lower limit. This activates the muting relays but does not light the MUTE LED.

R. DAVID MCLAUGHLIN
Product Line Manager
Crown International

March 1979
McIntosh

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CIRCLE 32 ON PAGE 107

Referring to John C. Simoneaux's letter concerning surface noise and your reply [August], I experienced just such an apparent increase in noise after upgrading my system with Bose 301 speakers, Kenwood KA-5500 amp, and Audio-Technica cartridge. I too carefully clean my records using the Discwasher as recommended, and I also clean the Discwasher brush. Although I can detect no residue on my stylus, I often clean it with Discwasher products as recommended. Despite all (including application of Sound Guard), the annoying surface noise is there. I believe that the noise is actually in the pressing and that my new components allow me to hear what was previously masked.

I would, of course, be delighted to be proven wrong, and my point in writing is to coax you into re-examining your answer to Mr. Simoneaux. Cleaning the Discwasher brush is certainly not the answer for me, and I doubt that it is for him.—Harry W. Minich, Rock Hill, S.C.

One way to shed a bit of light on the problem would be to take a new disc of high quality and play it before subjecting it to your usual cleaning regime—and, better yet, if possible, dub it onto a tape. Then clean it in the usual way and play it again, comparing before and after. You may find that the cleaning reduces the noise or fails to affect it. If so, the fault probably lies in the pressing. But you may find, as we have from time to time, that the cleaning is actually increasing the noise. In this case, look for a dirty brush or some error in technique that is causing contamination of the discs. Otherwise, try a crystal ball—we're stumped.

When playing my FM tuner, I experience the normal stereo effect. When I play a stereo record, however, much of the sound is distinctly heard at the left and right speakers rather than midway between them. What are possible causes for this?—Alex Soave, Plainview, N.Y.

It's possible that your phono cartridge is wired incorrectly. Try the following. Play a mono record that has not been rechanneled as fake stereo. If, when you switch from the stereo mode to mono (L + R) at your amplifier, the level of the music drops drastically, leaving mostly noise and distortion, the cartridge is connected out of phase. Check to see that the connecting color-coded wires match the color dots on the cartridge.

On the other hand, it's possible that your system is working perfectly well. Many stereo discs are recorded with a multi-microphone technique on separate tracks of the master tape. When the producer "assigns" the instruments their spatial location during mixing, he may emphasize channel separation and leave little in the center. Such "multiple mono" recordings seldom give a realistic stereo image, and this may be what you're objecting to. It may also be that your FM tuner has poor separation and you have become used to the effect—or have spaced the speakers too far from each other in trying to compensate for it.

After reading reviews of the newest version of the Shure/SME tone arm, I was led to reread closely your article "Tone Arm damping" by James Brinton (July 1975). Fascinating!

I have what I consider a crucial question to which I would appreciate simply a "yes" or "no" answer. If one were to install Mr. Brinton's device on the motorboard of an Acoustic Research turntable, would vibration from the motor be transmitted via the STP and damping paddle to the arm itself, defeating in any significant degree either the whole intent of the damping or the intent of the turntable designer with his decoupled turntable/arm T-bar?—Alva W. Bennett, Santa Barbara, Calif.

Since your "significant degree" may not be the same as ours, we must decline to give a "yes" or "no" answer. Rather, because we obviously cannot try experiments like this with every turntable under the sun, the answer is that we don't know. More to the point, however, is the fact that the article was written some time ago, and damping methods are now available that offer (at least) more convenience than does a home-brew system. Specifically, we would expect that you will get better results for less effort with a DiscTraker correctly installed, especially since this device is referenced to the surface of the disc (as are the warps) rather than to the plane of the tone arm.

I am interested in building my own speaker enclosures using the transmission-line theory. I have seen two models available as kits using 1/2 and 1/4 wavelength, but these are expensive and, since they come from mail-order companies, are difficult to evaluate. Is there any information published on Fried's studies that would be translatable by the amateur craftsman? Can you furnish addresses of high-quality driver manufacturers that might be willing to supply plans or dimensions and specs for such a project?—Guy Wentworth, Fremont, Calif.

We are not aware of any driver manufacturers that offer plans for a transmission-line enclosure to house their woofers. However, many firms, including AcustaCraft, Electro-Voice, JBL, Speakerlab, and Speakerkit, offer plans for sealed and vented systems.

We regret that, due to the volume of reader mail we get, we cannot give individual answers to all questions.

CIRCLE 31 ON PAGE 107
People who aren't using our new tape care kit should have their heads examined.

After every ten hours of recording or twenty hours of play back, you should spend a few minutes cleaning your tape heads. Because in that period of time enough dust and residue accumulate on your tape heads to significantly affect the sound that comes out of your tape deck.

So at Maxell, we've developed a tape care kit to help you get the cleanest possible sound out of your recordings.

In addition to liquid head cleaner, it has special curved probes, swabs, a brush and a mirror to help you keep even areas you can't see spotless. All of which means you'll be getting maximum performance out of your machine. Year after year.

And if that doesn't sound like a good idea, maybe you need to have more than your tape heads examined.
Mitsubishi has put big audio performance into a series of precise little packages. Microcomponents. Stereo components that are compact. But can hardly be called compacts. They have the same high-performance characteristics as our regular size components. They have to. They’re Mitsubishi.

The Micro FM tuner, for one. It’s the teeniest tuner in the world. A mere 105/8”x 23/4”x 93/4” big. However, few tuners can measure up to its standards. It has, among other things, a quartz-PLL synthesizer tuning system so sophisticated that it has absolutely no drift. Zilch.

We were no less frugal with features on our Micro Cassette Deck. It has an Automatic Spacing Pause System, Dual Capstan Drive, Separate 3-way Bias and Equalization Feather Touch Controls and of course, Dolby. Yet measures only 105/8”x 51/2”x 95/8”.

For power, the Micro Amp is unbeatable at this size. The little “direct coupled” powerhouse puts out 70 watts per channel. Total harmonic distortion is only 0.01%. For 30 watts per channel, it’s an infinitesimal 0.004%.

Our Micro Preamp is made to complement the amp. And faithfully conduct any signal source that goes through it. It has a built-in moving-coil head amplifier. With a signal-to-noise ratio of 77dB even for 100µV input and 0.005% THD, it obviously does the job better than components twice its size.

Small wonder the final touch was to finish them with Champagne Gold face plates. The new Mitsubishi microcomponents. Now bigger isn’t better. Only bigger.
THE PHASE LINEAR 700 SERIES TWO.

Over seven years ago, Phase Linear took the audio world by storm when it introduced the first truly high-power, high-fidelity amplifier: the Phase 700. Everyone was stunned at the incredible 350 watts per channel, with ultra low distortion. (In those days, popular mythology held that amps would never need more than 50 watts to a side. In fact, who had even heard of clipping?)

Naturally, the skeptics scoffed. But audio critics and music-lovers worldwide listened. And for the first time, they heard recorded music reproduced in the home accurately. No muddy rumble at the low end. No harsh, distorted clipping of the highs. The era of great power amps had begun!

Today, it's generally accepted that you need an amplifier with a massive reserve power to drive inefficient high-technology speakers and reproduce all the musical transient peaks without clipping. The amplifier with unquestioned ability to meet this criteria is the Phase Linear 700 Series Two.

GREATER POWER RESERVES MEAN GREATER HEADROOM

The Phase 700 Series Two is rated at 360 watts per channel, with distortion virtually inaudible at 0.09%. With this tremendous power, the Phase 700 can reproduce musical transients with ease, giving you almost unlimited headroom. As a result, your music sounds lively, with incredible realism. Even the deepest notes are clearly distinguishable.

INCREASED ACCURACY AND PROVEN RELIABILITY

The original Phase 700 was designed for home use, but it rapidly won the approval of the pros. Its proven dependability on the road made the 700 a favorite touring amp for super groups and sound reinforcement companies. The Phase 700 Series Two retains this legendary reliability, and improves sonic accuracy by utilizing an advanced BI-FET input stage. This integrated circuit keeps the output virtually identical to the input. Beautiful music in, beautiful music out.

The 700's instantaneous LED output meters move at lightning speed, accurately monitoring the output voltage, with calibrations for 8 and 4-ohm applications. If you're listening at quiet levels, you can activate a Meter Range Switch to upscale the meter by 20dB. You have a visual indication of output activity, in addition to the Electronic Energy Limiters that prevent damage from accidental overloads.

If you demand great performance, don't settle for less than a great amplifier.

SPECIFICATIONS:

- Output Power: 360 W, Min. RMS per channel 20Hz-20kHz into 8 Ohms, with no more than 0.09% Total Harmonic Distortion
- Continuous Power Per Channel At 1000Hz With No More Than 0.09% Total Harmonic Distortion: 8 Ohms: 450 W, 4 Ohms: 550 W
- Intermodulation Distortion: 0.09% Max (60Hz/7kHz: 4:1)
- Damping Factor: 1000:1 Min.
- Residual Noise: 120uV (IHF 'A')
- Signal To Noise Ratio: 110dB (IHF 'A')
- Weight: 45 lbs (20 kgs)
- Dimensions: 19" x 10" x 7.8cm (48.3cm x 25.4cm)

Optional Accessories: Solid Oak or Walnut side panels. E.I.A. standard rack mount configuration.
The Making of Superdisc:
Miking, Mastering, and Other Matters
An Interview with John Eargle

by Don Heckman

John Eargle—vice president of product development at JBL Laboratories, the author of Sound Recording (published by Van Nostrand Reinhold and one of the most respected books on studio technique), and former RCA Records engineer and chief engineer of Mercury Records— inhabits offices in the hard-edge, starkly modern California facilities of JBL, where I visited him last winter. Our conversation centered on the emerging digital technology and touched on other areas such as direct-to-disc recording and metal-particle tapes. I began by asking him about the current interest in the potential of video discs as an audio medium.

“A lot of possibilities there,” Eargle replied, citing those digital discs’ signal-to-noise ratio of 90 dB and relative freedom from ticks and pops. “Dust, cigarette ashes, and the like are just pushed right off the disc; you can’t scratch them; and the playing time runs to about an hour on a side.”

And the problems?

“Quite a few,” he said. “You can’t overlook the existing population of record/playback systems out there that have basically been compatible since the 1950s. Even the arrival of stereo didn’t really call for the scrapping of anything. But if we make the change to a video disc pulse-code modulation system, it’s going to call for entirely new record-guidance equipment, pickups, and digital-to-analog conversion.

“I don’t know if the public will ever go for that kind of massive change. The most attractive compromise I can see at the moment is, perhaps, the arrival of a convertor for someone’s video disc player. But even that assumes that the video disc can be made viable, and I’ve got doubts about that, too. Aside from a very few special events, how many things can you think of that you would really like to preserve for continued reuse? Even if you wanted to see Henry V or Richard III with Olivier, how many times a year would you watch it? An erasable medium—in this case, tape—makes much more sense for home video programming, and that doesn’t bode well for the audio uses of a video disc.”

Then why not, I wondered, just stick with the present analog stereo disc but provide it with digitally recorded programs?

“The analog disc,” he replied, “is really being strained by the kind of signals we can now put onto it. So are most playback systems. Most speakers can’t play all that loud, and when they can, people have to turn them down in order not to break their leases. And when they pull the level down, the music gets lost in the ambient noise level of the listening room.

“I’m probably more cautious about the immediate effects of digital technology on discs than are some of its more avid proponents. As far as most listeners are concerned, the difference in quality between a digital recording and a recording made with state-of-the-art analog equipment isn’t really all that great. You can get signal-to-noise ratios that rival each other; if you add noise reduction to the analog recording, you’re practically on a par with the digital. On an A/B basis, most people would never be able to tell the difference. And even that difference—if it is there—is lost by the time you make a normal LP out of it.

“The point is that, as long as we continue to use the analog playback disc—with all its inherent limitations—it’s questionable how much of a real in-road digital technology will make. A great deal will depend on the cost of converting studios to digital and on how trouble-free the technology is. Which brings us full circle. Things won’t really begin to change until we have a pulse-code modulation disc—a complete digital disc system—in the home. That’s when things will finally begin to happen.”

If digital-in-the-home seems so far down the pike, what about the sonics of direct-cut discs— which seems, from many listeners’ points of view, to compare favorably with digital?

“It’s hard to argue,” Eargle said, “with the prop-
"I like the fact that most of the practitioners of the direct-to-disc art are avoiding the pitfalls of multimiking."

osition that a piece of wire from the input to the output has to sound better than a wire with something in between. And the question of how close digital recording or direct-to-disc can come to that hypothetical piece of wire is something that we really don't know at this point. Many people feel there is a difference that they can hear between direct-to-disc and digital. I can't argue with that. But what we do know, in terms of the differences between the two, is that there is a great deal of value in being able to go back and remaster and remaster again, which you can't do with direct-to-disc.

"The real question, I think, is where the direct-to-disc people can go with their lathes—how much better they can get—and, though this doesn't really have much to do with electronics, whether or not they are in a position to take a bath if something really doesn't work: if, for example, a whole session is blown and its $30,000 or $40,000 cost can't be recovered. Do that two or three times in a row, and you're out of business."

What Eargle does like about direct-to-disc and the new 2- and 4-channel digital tape machines is the fact that each process demands a return to an older kind of recording technique: "The important thing to me is that it's direct to stereo. I like the fact that most of the practitioners of this art are avoiding the pitfalls of multimiking. These are people who have bemoaned the quality of so much recording—the overmiked 16- and 24-channel productions at Columbia and RCA. The audiophile producers, most of whom are people who listen carefully to music, are rebelling—rightly, I think—against that practice. They're looking for a return to a natural, musical approach to recording (which usually is a hands-off approach). You set things up carefully: You pick the right venue, you place your musicians in it, and then you just turn the equipment on and sit back and enjoy.

"I should mention, though, that if you're very careful with multimiking, you also can use it to make superlative classical recordings, as Philips and Deutsche Grammophon do. One way it can be done is to start with a basic, fixed pickup, in which left, center, and right mikes are part of a single arrangement, usually on a mike tree. The signals are recorded on two tracks as a stereo pair; other tracks are used to record individual instruments or sections for subtle mixing, enhancing, and highlighting later on."

Turning again to the underlying recording technology, I asked Eargle where he thought the greatest initial impact of digital electronics would come. "In the professional studios," he answered. "We've already seen widespread use of automated mixdown systems, which represented the first real application of digital methods to studio equipment. The early versions were fairly simple multiplex systems in which a pair of tracks on the multitrack master were reserved for encoded information that controlled all the settings of the mixdown board, from equalization to faders. They worked very well up to a point, but the present generation of systems stores the control information elsewhere—on floppy discs or another tape—and gets more flexibility and precision in the control system.

"Think of the advantages for creative mixdowns, which are to a large extent where pop hits are created these days. You set up your rhythm section, get it just the way you want it, then commit it to a microprocessor memory. Then you pull in the vocals, the lead instruments, the sweetening. Then, after you have all this assembled, you decide to change one or two bars of the vocal. It's very simple: You sit down, press in, change the vocal stuff around, press out, and you've got it. Once you had everything balanced doing it the old way—without a digital controller on the mixdown—a simple change in the vocals would require you to go back to square one and start all over. Of course, not every kind of music requires that sort of flexibility, but there's no question that just having the flexibility gives a rock or pop producer a lot more room in which to work."

Another important impact area for digital technology is tape editing. With digital equipment, the audio engineer can finally throw away his trusty razor blade. Most digital systems cannot be spliced successfully and presuppose electronic editing instead.

"Digital editing is incredibly precise," said Eargle. "When you splice an analog recording, you usually try to do it in a spot where there is a musical transition—and you can get away with a lot because there is a transition. But let's say you want to
photograph by Gary Heery

JBL studio monitor and friend
edit right in the middle of a French horn note. A splice in a sustained note is almost impossible to conceal."

With a digital recording, the engineer observes the waveforms in the vicinity of the edit point on a CRT (a tube like that on an oscilloscope or TV receiver), where they appear as dotted lines—the digital equivalent of the original, continuous waveform. A "cursor" is used rather like the hairline assembly on a slide rule to locate a point where the waveforms of two takes nearly match and have the same slope. At that point, the edited version will be able to switch from one take to the other with no detectable side effects.

"You can edit just that track alone, without touching the others if you don't want to," Eargle continued. "The next track can be edited in the same general time frame, but at a point that is best for its waveforms. When the editing decisions have been made, the two tapes that you're joining are played on two separate machines, and you make your edited copy on a third. And, since this is a digital process, there is no degradation of signal in the copying process. In digital copying, the original information is repeated without noise or peripheral sounds. This is fundamentally different from copying analog recordings, of course, in which everything—noise, pops, scratches, room tone, system hum, etc.—is copied along with your program material."

I asked Eargle about another highly volatile area of contemporary audio technology: audio tape, especially the new metal-particle tapes.

"To understand their impact," he said, "you have to get back to basics. If you're recording a 15,000-Hz tone at 15 ips, your wavelength is one one-thousandth of an inch—1 mil. If you're recording at 1½ ips, your waveform is one-eighth of that—one eight-thousandth of an inch. So there are important physical differences between professional studio recording and consumer cassette tape recording. At cassette speed, the tape has to be extremely thin, so the recording layer—I won't call it oxide anymore—also has to be extremely thin. Normal tape technology doesn't always hold up well in the face of that fact since signal strength depends upon the quality of the available recording medium: if you want a high recorded level, you've got to have a thicker recording layer. And that's why chromium dioxide, for example—which will give you high output from a thin layer—has come into use.

"Metal-particle tape is another step in that same direction, except that it's going to require new hardware. You have to have much higher bias and recording currents in order to produce a good medium for the kind of short-wavelength recording that's required on cassettes. In the studio, however, you never have to worry about short wavelengths. You have the luxury of spinning your tape at 15 ips, or even faster. So the impact of metal-particle tape is probably going to be strongest in the domestic area, and even then only if the consumer is willing to update his hardware. And that's a big if.

"In studio recording, there hasn't been any substantial improvement in tape quality in the last few years. And we may be headed—on the studio level—so clearly into the digital era that there may not be any real further development of tape for analog use."

Eargle was consistent in his belief that it was, in fact, in the studios that the first major impact of digital technology would be felt. He anticipates a lot of changes.

"The overall music equation—of which mike placement, for example, is one important part—has to be re-evaluated," he said. "We've begun to look at the microphones themselves. Some of the longtime favorites are turning out to be pretty ratty mikes. But things have improved so much that we can now begin to look at the noise levels and the overload points of these critters. The output of noise from all the microphones through a console can virtually wipe out the signal-to-noise improvement that we're gaining from systems of wider dynamic range."

"But even so," he said, "there will be a lot of respectable studios that don't rush into digital setups. It'll be quite a while before the multitrack digital tape machines we keep hearing about actually become staples of the industry. Until then, I don't think we should be too unhappy with the analog equipment we have. Let's not forget that it's been doing a pretty good job for us for a long time."

●
The Making of Superdisc: Manufacture—Delivering the Goods
An Interview with Stan Ricker
by Don Heckman

Stan Ricker—the “main man” at JVC’s Los Angeles Cutting Center—loves his work and expresses his feelings about it succinctly: “I’d stand on my head to make a better record, but then, I’m commonly known around the business as a member of the lunatic fringe.” Far from it, Ricker is very sane, indeed, about what he wants to do—and what he does—as a sort of obstetrician who accomplishes the critical transition from the conception of the studio and the gestation of the mixing/editing room to the nursery of the pressing plant.

He likes to talk while he works—or, perhaps more accurately, he prefers to work while he talks (especially if he is being interviewed). Most of our conversation about the current state of record cutting and pressing was held as he was meticulously preparing to cut disc masters for a digital recording on Telarc: the Cleveland Orchestra’s Pictures at an Exhibition. Offering occasional comments, pithy remarks, and clarifications throughout the proceedings were Telarc’s owner and No. 1 engineer, Jack Renner, and Soundstream’s design engineer, Bruce Rothaar.

I asked Ricker about the problems that might be raised by his still somewhat radical feeling that disc mastering is an integral part of the creative chain of record-making.

“In Germany and Japan,” he said, “the concept of disc mastering doesn’t even exist; the concept is tape-to-disc transfer. And this is one of the very big arguments I’ve had with the Japanese technicians at JVC. They say that a disc technician simply provides an excellent replica of what is on the tape. And I say, ‘Okay; then you give me a lousy tape, and I’ll give you a lousy record.’ The difference between the Japanese and German method of simple tape-to-disc transfer and what I do—disc mastering—is that mastering implies a creative act. It is the last chance to fix things, so to speak.

“I get tapes that have been mixed in many different studios under many different monitoring conditions, even under different psychological conditions. That is, both the sound and the presuppositions on the basis of which the mixing decisions have been made can vary widely. This leads to all sorts of errors in channel balance and, especially, in equalization. High-frequency sensitivity really seems to go out the window for some producers. So I have to listen to each cut and try to optimize it, always keeping in mind who the final consumer will be. There are things you do for a commercial pop product that, hopefully, you won’t do for an audiophile or classical product.”

Doesn’t this approach run the risk of causing conflict with a producer?

“There are several things you have to remember,” Ricker answered. “Because the disc-cutting chain, like the other audio chains, is not a straight wire with gain, there are losses—not only in the cutting equipment, but primarily in the playback of the final product. In order to make it play back the way the producer thinks he has it on the tape, there are things you have to do: limiting, compression, midband equalization, this kind of thing. That’s your job. Curiously, most of the pop producers are concerned with how their product will play over the air, but they don’t give it the midband pre-emphasis on the tape that will make it sound good.

“There is, of course, the other side of the coin, in which some disc-mastering people say, ‘Why worry about it? It’s just a phonograph record.’ When they look at it that way, their approach tends to be: ‘Set the alignment tones; okay, let’s cut the record!’ Maybe they add 2 dB at 5 or 10 kHz. You know, there are many cutting facilities that, as a matter of policy, leave in high-frequency limiters, low-frequency crossovers, and overall peak programmers because they’re cutting the unknown. Rather than spend time—which is money—running the tape through to find out what the trouble spots are, they just spot-check it, cut it, and
hope for the best. I suppose there’s nothing necessarily wrong with that, but it really doesn’t allow you to optimize to the program you’re cutting.”

I asked Ricker to compare the direct-to-disc process with digital recording.

“The results, on a disc, should be equal,” he said.

Telarc’s Renner had a somewhat different opinion: “We started out with direct-to-disc [the Cleveland Orchestra’s “Direct from Cleveland”, see HF, July 1977], but from now on Telarc’s total audiophile output will be digital. We think you can get better side times. There’s probably no sonic difference from direct-to-disc; I think digital is slightly better, but I know that’s a subjective reaction. I am sure that the finished digital product is better, though, primarily because you can’t edit direct-cut discs.”

Ricker agreed: “As a mastering engineer, I enjoy the challenge of direct-cut discs, but I think the potential is limited. It just puts too much unnecessary restraint on the performers. In fact, I suspect it’s largely over the hill already. I think there are some people in the industry with the mistaken idea that audiophiles are sitting out there waiting for direct-cut discs just because they’re direct-to-disc recordings. The public isn’t all that dense. It wants quality and recognizes it when it comes along, no matter what the audio technique is.”

He mentioned another problem about direct-cut discs: the built-in limitation on the number of pressings that can be made from the lacquer masters that are cut “live” at the recording session. “It depends,” Ricker said, “on the condition of the cutter stylus, the lacquer—a whole lot of unknowns. And you never really know how many pressings you have until they’re all gone.”

Renner offered another view: “Teldec, where we press our discs, will get 2 mothers per lacquer under good circumstances, anywhere from 10 to 15 stampers per mother, and a 1,000 good pressings per stamper. So you can figure the numbers: 20,000 to 30,000 discs. On the other hand, the Philips people say they can get 1 good mother per lacquer and 50 good stampers per mother.”

Pressings themselves present their own complex of problems. Teldec—owned jointly by Telefunken and British Decca—is used by many American discophile companies, but the search for the ideal pressings has led them to plants scattered from Japan to Spain. One reason often cited for the search is the likelihood that warps or other physical deformities will be inflicted on warm pressings with the high-speed production lines—automated or otherwise—that are the rule with mass producers, particularly in the U.S. Another reason is vinyl quality.

Ricker was explicit: “The most important reason why there are no good pressing facilities for audiophile products in this country is the problem caused by OSHA [the federal Occupational Safety and Health Administration]. Its concern about occupational hazards caused by possible carcinogens in resins has made it virtually impossible to produce top-quality vinyl. The restrictions are so gross that it’s amazing anything can be manufactured at all. The biggest supplier of vinyl in the U.S. is the Keysor-Century Corporation, which produces perhaps 85% of all the compound used for American pressings, and they keep getting shot down by OSHA whenever they try to work out new vinyl compounds.”

Like Germany’s Teldec, the Victor Company of Japan (JVC) does quality pressings, but small American discophile companies are inhibited from using their facilities by a Japanese law that prohibits thirty-day open accounts for foreign companies. Without the sort of working capital that few discophile companies can command, that restriction is just too difficult to get around.

But the domestic picture may not be as bleak as Ricker’s statement on OSHA paints it. Some audiophile discs of rock music are pressed in the U.S. (Sheffield has used Record Technology in Camarillo, California, for a Thelma Houston release). And the equally important electroplating process, by which the lacquer masters cut by Ricker and his peers generate the stampers from which the records are pressed, suffers from no comparably crippling restrictions.

Even so, the perfectionist will choose his electroplater as carefully as he chooses his pressing plant. Ricker’s choice is Europadisk Plating in New York: “I tell all my clients who are going to press in the U.S., ‘If you don’t send the lacquers to Europadisk, I won’t guarantee them across the street.’”

I pulled the conversation back to digital discs, asking if the effect of noise on discs made from digitally recorded material is more obtrusive.

“I think so,” said Ricker, “because you don’t have the masking effect of tape hiss and all the other garbage in the vinyl.”

Renner added: “Plus the fact that, on a digital disc, we run anywhere from 60 to 64 dB of dynamic range on the finished record [a few dB more than most producers would venture with analog tapes], and the soft passages really get down toward the noise level of the record’s surfaces. In order to reproduce the softest passages at a listenable level, you’ve got to turn up your sound, and that brings up any garbage with it.”

“Right,” agreed Ricker. “The typical noise of an unprocessed lacquer with no modulation usually is about –68 to –72 dB. And I think that the present state of the art in disc cutting—at half speed, with special styli—we are not quite able to achieve that. The real-time, unmodulated test cuts that we’ve made with standard styli can be somewhat qui-
Ricker—JVC's man behind it all
eter, but you have to take the whole picture into consideration—like frequency response, which suffers with standard cutting styli. The real question is, "What does the music sound like?"

Renner explained that Telarc digital recordings made with Soundstream equipment are done absolutely flat, with no processing at all on the tape but some slight equalization added during the disc mastering by Ricker. "The level may be changed by a dB or two," he continued, "to accommodate the length of time on a side vs. the limitations of disc as a recording medium. Obviously, we don't want to cut too far toward the center."

"OSHA's concern about occupational hazards has made it virtually impossible to produce top-quality vinyl here."

Does that mean that digital recordings are cut differently from direct-to-disc?

"Not really," said Ricker, referring to standard industry practice. "But I'm different from the beginning. I cut an analog or a digital recording at half speed, and that's a lot different from what most people do."

Ricker has pioneered half-speed recording, a still-controversial process that he is eager to defend against its critics: "To put it in a nutshell, what you get by cutting at half speed is less distortion and better frequency response in the master. When the speed is cut in half, the power used in cutting drops by a factor of four, which means that the amps are loafing and the system is more linear. And there are fewer problems with slew-rate limiting—the system can keep pace with the fastest of transients.

"Besides that, you get a cleaner tape playback from the recorder. Most of these machines use peaking circuits that resonate near 20 kHz to maintain high-frequency response. When these are hit by a transient, they ring, and the ringing goes into the cutter. At half speed, the ringing doesn't happen. Even a tape-to-tape dub comes out better at half speed."

But what do its critics hold against it? "There are a lot of reasons," he said, "why half-speed cutting doesn't work for Joe Average Cutter. The first is that there are a lot of transformers in the disc-cutting chain, and, taken collectively, they don't couple very well at the low frequencies involved in half-speed cutting. In the system I've developed here, we're transformerless; we built Class A differential amplifiers for each input to replace the transformers and provide the gain we need. Once we did that, we noticed a really remarkable difference—especially in midband vocal reproduction and in a much firmer, more accurate bass.

"Joe Average takes his Studer, puts it on 7½, runs his lathe at half speed. Aside from the problem of all those transformers, he doesn't have half-speed RIAA cutting equalization or half-speed NAB tape playback equalization. When a guy tries half-speed cutting and runs into all those problems, he's correct in saying it doesn't work. But he really hasn't given it a chance to work."

Ricker's work with half-speed cutting has been a long time in development. Basic to its success is the specialized, custom-modified equipment JVC has made available to him.

"This cutting system," he explained, "wasn't bought as a standard facility and then converted. It was delivered from Neumann as a half-speed operation. Which meant that it had half-speed RIAA equalization already on it and that the electronics and the cutter head had been very carefully matched in terms of phase, amplitude, and gain characteristics. Also, in this particular cutting system, there is a device called a Cross-Talk Canceler. At higher frequencies, it takes some of the program signal from each of the channels, inverts the phase, and injects it into the opposite channels in a controlled manner. As a matter of fact, I understand Denon now has a device that does this with a playback cartridge to minimize crosstalk characteristics. Back when we were cutting CD-4 discs—and boy, am I glad those days are gone—the carrier was brought down to as low as 15 kHz at half speed and crosstalk in the carrier became a major problem. So we really needed the CTC then. We haven't taken the CTC out, and its subjective effect is that, if you have a cymbal crash in one channel, it stays there; it doesn't tend to smear toward the center, as it might in real-time cutting on a normal system."

But, I wondered, if half-speed cutting works so well, why hasn't it become an industry standard.

Ricker responded with typical, no-nonsense directness: "The industry standard is corporate greed. If my facility was operated—as many others are—by a CPA, he'd be running in every other minute asking, 'Why the hell aren't you cutting?' And the next thing he'd say is, 'Let's see, you charge $100 a lacquer for cutting at half speed. Why, we could double our money with real-time cutting!' I've even heard that there are one or more facilities attempting to cut at double speed, using piezoelectric cutters, to handle the high-frequency requirements. God knows what their bandwidth is like!

"I'll tell you what the real point is: The sonic benefits of half-speed cutting can really be heard even by people who don't use audiophile playback systems—in fact, by people who play their records on pretty crummy systems. And if they can hear the difference, that's good enough for me!"
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March 1979
Last summer, while passing through Aspen, I visited one of the Music Critics Association's institutes for young working critics, and by chance the session I sat in on was devoted to recording. In the course of getting my two cents' worth in, I roused at least one gasp and several chuckles with an ad-lib reference to "the late Fifties, when the recording art reached its zenith."

Well, folks, I wasn't being entirely facetious. And at the risk of being typed as our resident reactionary, I've agreed to sound a loud note of caution concerning technological developments in sound recording. But first it must be understood that I'm not against technology. I'm not even against progress. What I'm against is the automatic equation of the two. Technology increases our capabilities; it expands the range of possibilities open to us. It doesn't by itself raise the level of actual accomplishment; it may, indirectly, lower that level.

To be more specific: Appreciative though I am of the sophisticated tools now available to record producers, and much as I admire the best recordings being made, I can't help feeling that today's product is in general sonically inferior to that of ten, fifteen, or even twenty years ago. And the improved disc-mastering technology of recent years—as applied to numerous reissues of early stereo material, in particular from EMI in Europe—has shown us more forcefully how good much of that work was.

Let me be still more specific. In the November 1978 issue, reviewing DG's new recording of Puccini's Fanciulla del West, I expressed a strong preference for both of the early stereo performances, now two decades old. Since it occurred to me that readers might reasonably assume that the new version had, if nothing else, a decisive sonic advantage, I noted that the earlier recordings "seem to me at least as well recorded as the DG."

On further reflection, I don't think that statement went far enough. Even allowing for differences in taste (there may well be listeners who prefer the murky DG acoustic), I think it's unarguable that the "old" recordings have more colorful and more transparent textures, brighter and more realistic tonal values, richer and more solid bass, and more believable spatial perspectives. Clearly the technology existed twenty years ago to get those qualities on tape, and many recording producers regularly did just that. In the case of Fanciulla, Puccini's inventive orchestration was admirably served by both the Decca/London and the EMI recording teams.

Obviously we do wade here into the swamp of taste, and the more I talk to knowledgeable record collectors and audiophiles, the more I realize how little common ground there is in the way people perceive and react to sound. I should make clear at this point that the kind of sound I'm talking about is, more or less, the identifiable tone of the instruments and human voices used in Western classical music—I mean, for example, a flute sound (or, more accurately, a range of flute sounds) that corresponds to the acoustical output evolved for that instrument as controlled by the breath, fingers, and sensitivity of a skilled player, and not a flute sound that is manufactured electronically, either by a synthesizer or by insensitive recording of the real thing.

Electronic flute (and other) sounds have real musical uses, but I don't count among them the flute parts written by Mozart, Verdi, Debussy, Strauss, et al. Of course there's wide variation in the kinds of sounds called for there too, but that's beyond the scope of this discussion, just as it's beyond the scope of the recording engineer's craft: If the flutist's instrument, technique, and sense of style aren't appropriate to, say, Verdi, no amount of knob-twirling will bridge the gap.

Yes, taste is crucial. Some listeners rejoice over every dB of increase in dynamic range; even if I...
It's Up and Away Already

by Harold A. Rodgers

Of the developments mentioned by Messrs. Eargle and Ricker only digital recording, the perfection of half-speed cutting, and the possible introduction of metal-particle tape strike me as really new. Mr. Eargle seems unconvinced that metal-particle tape will have much effect in professional recording, and so am I. This leaves digital recording as the matter of principal importance, with half-speed cutting a secondary influence that, as far as discs of the best possible sonic quality are concerned, reaches its maximum utility when the master exists as a digital master tape.

It probably won't happen all at once or even necessarily very soon, but it seems safe to predict that over the long term most of the more elaborate home systems will be equipped with digital players and digital discs of one sort or another. That is a big step with many difficult obstacles still in its way. For the foreseeable future, digital techniques will most likely be confined to the recording and mastering of better analog discs. That, in fact, has already begun to happen.

For some years now, frustrated audiophiles have decried the fact that they could not purchase records of a quality to match that of their music systems. Nature's abhorrence of a vacuum prevailed, and small specialized companies arose to fill the need, some with discs produced via conventional analog tape transfers executed with extreme care and some with discs produced from directly cut masters with no tape involved at all. Both types exceed the standard of sound quality set by mass-marketed phonograph records, but in general reputation (and my own experience) direct cuts were the better of the two.

But sound quality is not all there is to a recording. The level of musical performance must be considered as well. This is even more important for a recording than in a live situation, for a lapse of execution or interpretation that might escape notice in a single hearing is bound to become irritating after the umpteenth repetition. Sonics aside, the tape transfer process, with its capability of being edited, now looks like the hands-down winner. Not only can errors be corrected and retakes made, but the greater sense of ease that this affords the performers often means that fewer mistakes are made in the first place. And while it can be argued that the adrenaline flow occasioned by the pressures of direct recording can contribute to superior performances, the results usually lend support to the opposing view.

Another difficulty involved in producing direct-cut discs is that, as Jack Renner points out in the preceding article, the numbers that can be produced are sharply limited. The only way to exceed those numbers is to run multiple lathes, each with its own operator, during the original recording session. Even so, it is by no means certain that all the masters will be of the same quality or, for that matter, usable at all. In addition, there is always the possibility of damage to a master, mother, or Stamper before the end of its useful life. Any disaster of this kind would, of course, reduce still further—possibly even to zero—the number of copies from which the cost of recording must be recovered. The producer who would undertake the recording of an opera, say, of even modest dimensions in the face of risks such as these is a riverboat gambler indeed.

It is likely that the very real problems involved in direct-cut recordings would lead its practitioners and proponents to drop it like a hot potato were a sonically viable alternative available. Digital recording, in my opinion, is not only the sonic equal of direct cutting, but probably better. If the disc master is cut at half speed (an obvious impossibility in the direct process), it is almost certainly better.

And digital recording allows practical operating advantages as well. The master tape can be pro-

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Furie
didn’t have neighbors to worry about. I wouldn’t want the full dynamic range of a concert hall in my home. For listeners to whom background noise is a serious irritant, every reduction in tape hiss is a godsend. All other things being equal, I’d like minimal hiss too, but other things aren’t at all equal—even the total elimination of distortion wouldn’t turn a Cappuccilli into a Stracciar! and never mind the noise component of acoustic and early electric recording. (If our technical wizards could turn Cappuccilli into Stracciar! I would fairly leap onto the bandwagon.)

Yet even matters of taste have boundaries, as HF readers saw not long ago when the question of sonic perspective united such seemingly irreconcilable tastes as Conrad L. Osborne’s and John Culshaw’s. Those who have the February and October 1977 issues at hand can—should—reread the Osborne review of Columbia’s recording of Charpentier’s Louise and the Culshaw column it inspired, “Why Records Should Never Be Flat.” Both are cogent statements of matters of central importance, to which my summary can’t do justice.

The Osborne complaint about the sound (“too much electronic sophistication, too little dramatic and musical common sense”) was registered with specific reference to “the runny textures and strange balances of the street scene—the vendors’ voices do not sound off, but only separate... the worst instance being that of the Carrot Vendor: The whole point is that he is crying out at the top of his lungs, but at a considerable distance (f. suggests Charpentier), whereas he is clearly not more than two feet away, crooning.”

Culshaw, judging Louise “on the whole, representative of current standards in operatic recording,” laid the blame on postproduction mixing, “the reduction from multitrack to two-track—which process is rapidly turning from the helpful adjunct it was meant to be into the blight of modern recordings, operatic or not.” “Producers,” he complained, “are not using space any more,” adding that “nobody has yet invented a satisfactory way of conveying spaciousness by artificial means.” Finally he declared himself, not against multitrack recording, but “against the misuse of multitrack and all the laziness and self-indulgence that such misuse implies.”

That, of course, is what I had in mind when I suggested that technological advances may indirectly lower rather than raise the level of sonic accomplishment. Aren’t you almost inviting trouble when you increase the options open to producers in a way that all but demands they be used? In glum moments, I speculate that much of the electronic manipulation plaguing us results from a nagging feeling on the part of producers that they’re not “producing” unless they’re for heaven’s sake doing something. (There’s something to be said for the less active British designation, “recording managers.”)

I claim no special technical expertise and have no desire to tell producers how to do their job. All I care about is the result. If a producer can give me a symphony orchestra (or string quartet or solo piano) that sounds like a symphony orchestra (or string quartet or solo piano)—and what I’m asking is believability: I won’t be suckled into the “concert-hall realism” trap—then I don’t care whether he used two microphones or forty, although I confess to a fair measure of skepticism about the prospects of creating a believably whole sonic image out of forty separate electronic strands.

As near as I can tell, none of the vaunted new technologies bears directly on the basic problem of creating and transferring to disc a believable sonic image. I don’t doubt that digital recording is a breakthrough that will materially benefit producers who have already achieved functional mastery of the recording art, but how will it help the fellow who has, at least in my view, a defective image of what a flute or a Carrot Vendor should sound like?

Ditto for direct-to-disc recording, and then some. I think, for example, that Sheffield’s Wagner and Prokofiev recordings with Erich Leinsdorf and the Los Angeles Philharmonic sound pretty decent, but the sound—apart from being rather backward for my taste (the direct-to-disc producer still has to know how to deploy microphones optimally)—is that of a second-rate orchestra under plodding leadership; I can’t imagine any musical, or for that matter sonic, reason for returning to these discs. Direct-to-disc recording doesn’t help solve any of the problems that matter most to me, and in addition it introduces (or reintroduces) the technical and economic hitches that John Eargle describes elsewhere in this issue. Is this the sound of the future? I hope not.

It may be, of course, that what record buyers want for the sound of the future is an audiophile’s paradise featuring lots of zing in the transients, lots of thump in the bass, and not a lot of music—the opening of Zarathustra stretched into infinity. Once again, I hope not. And that doesn’t have to happen: there are people applying today’s technology with what I would call genuinely spectacular results—for example, David Mottley, formerly of EMI and now of CBS. (For more on him, see this month’s “Behind the Scenes.”)

If you can get hold of the British EMI edition, listen to the Strauss Don Quixote that Mottley produced with the Dresden State Orchestra under Rudolf Kempe—or, for that matter, to any of that Strauss series. A great conductor in command of a great orchestra, captured in rich, transparent, vivid, and colorful tonal splendor: That’s my nomination for the sound of the future.
Rodgers

tected from accidents by dubbing as many times as necessary. All the dubs will be indistinguishable from the master. Sophisticated, computerized editing equipment will replace physical tape splicing with electronically made joins that will be undetectable by any means. When multiple tracks are used, the editor will be able to make the joins in the individual tracks at different points or edit material into some tracks while leaving the others alone.

Since mixing (not very different from adding the numbers representing the signal on one track to those of other tracks) is also free of further noise, an ambitious producer who found the number of tracks at hand inadequate for his purposes could combine channels, bounce tracks, and add parts almost at will without the danger of hiss buildup. And it shouldn’t be very difficult to program a computer to act like a “smart” panpot that would add plausible time delays when the signal from a particular track is divided between the two stereo channels, thus giving the final mix a sense of depth in contrast to the distressing isolation of the sound sources in the all too familiar “multichannel mono” products. Equalization, reverberation, and other types of special effects could all be written into software and realized inside a computer.

My colleague Ken Furic appears to feel, perhaps with some justice, that power so close to absolute over the making of a record may corrupt producers almost absolutely, leading to all kinds of bizarre results in the final product. This sort of risk has been present throughout human technological development: Tools can be used for murder, fire for arson, communications systems for demagoguery. Perhaps naively, I retain faith in the ability of human beings to manage their own affairs and expect that the public will tire of and reject overgimmicked recordings, digital or otherwise. Actually, such a trend may be starting even now, as many of the superdiscs boast of the rediscovery of two- and three-point stereo mixing.

Then there is the factor of cost. Will not the staggering prices of digital hardware put it out of the reach of all but the largest and richest companies? The same question was asked when computers themselves first became available for use in business and industry, and just as the answer was “no” then, I believe it will be in the future. Lease plans can make some highly exotic hardware reasonable in cost, and even leasing can be avoided by engaging contract recording services. Soundstream has pioneered that section of the business, and other companies will doubtless follow. More to the point, when one’s competitors begin to upgrade their technologies, is it not suicidal to fall behind? Will not the fairly unattractive selection of program material now available on audiophile discs (there are exceptions, of course) look sorrier still when forward-looking companies begin to offer recordings of popular stars and solid symphonic and operatic literature without risking economic disaster? Don’t look now, but it has already begun to happen.

But what of the major companies? Can’t they just ignore digital recording and go on with business as usual? The audiophile market amounts to a good deal less than a hill of beans, from their point of view. If, as Stan Ricker asserts, the superior quality of a well-made disc can be appreciated when it is played on any decent equipment, not just state-of-the-art systems, it’s likely that promotional considerations, if nothing else, will urge the majors onward. If something that now appears as ill starred as quad was able to attract major companies, digital sound looks like a shoo-in. Certainly, in this league, the investment required is not much of a deterrent.

“If something as ill starred as quad was able to attract major record companies, digital sound looks like a shoo-in.”

Other influences may also help to propel the majors into digital audio. Their artists and a&r people may be so enthralled by the possibilities inherent in the new technology that they will be unrestrainable. The adoption of digital technology by the major companies may make records with state-of-the-art mastering available at a more reasonable price, although they are almost certain to cost a dollar or so more than conventional discs. But barring some sort of miraculous revolution in the pressing plants, the audiophile labels will, largely because of the greater care used in their manufacture, continue to command higher prices.

The first shock wave of digital audio has just started to propagate through the world of records, and whatever its velocity, its effects are not to be denied. A second wave, which will probably see the analog disc replaced at least in part by some form of digital consumer software, is already beginning to form. It seems reasonable to suppose that the fortunes of the video software and hardware now emerging will be intertwined with those of their digital-audio counterparts. More than that, it’s too early to say. ♦
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The thrill of being there.
Charles Mackerras on Handel
by Bernard Jacobson

Like a number of other contemporary conductors—Colin Davis, for example, started as a clarinetist—Charles Mackerras is a former woodwind player. Born in Sche-nectady, New York, in 1925, he was taken by his family to Sydney, Australia, at the age of two, and after studying at the Conservatorium there, became principal oboist of the Sydney Symphony Orchestra. Since 1947, apart from a year spent in Prague studying with Václav Talich and a period with the Hamburg State Opera, he has been based in England. There and elsewhere, he has built up a reputation both as an exciting exponent of the standard repertoire and as a notable scholar/performer in two special fields—the music of the eighteenth century and the works of Janácek. Thus his major contributions as musical director of the English National (formerly Sadler’s Wells) Opera, a post he left at the end of 1977, included some remarkable Janácek productions and what were probably the first modern presentations of the great Mozart operas to be given with the kind of vocal ornamentation the composer would have expected. His recording of Janácek’s Kátya Kabanova won an International Record Critics Award last year [see High Fidelity, December 1978].

My conversation with Mackerras, taped early in his last year at the English National, was a convivial meeting. He talked with easy authority and with a commonsense directness that I found aptly Handelian. He is at the opposite extreme from the mystics of the podium: a supremely successful and practical conductor who knows his scores as well as most and their background rather better. His energy is infectious, and he seems free of the irascibility often associated with oboists—something to do, they say, with all that high wind pressure confined in the cranium.

B.J.

MACKERRAS: The difference between Handel and his contemporaries seems to me to be his incredible gift for melody, within the framework of a contrapuntal style. Other great composers, such as Bach, also write beautiful melodies, but their real talent lies more in the combinations of the baroque style—the contrapuntal style—and in the way they put their instruments and their voices together. Now although Handel was perfectly capable of writing an eight-part fugue, and a very good one, there is no other composer of the early eighteenth century who writes such superb, such long and beau-

tifully drawn-out melodies with such extreme variety and, in the case of allegro melodies, with such power and such vitality. You can, if you’re not careful, play Handel just as generalized, ordinary contrapuntal music, much in the way Beecham, according to Bernard Shaw’s criticism, played Mozart as generalized eighteenth-century music. But as a conductor, one tries to bring out what one feels to be the special quality of a composer that distinguishes him from other composers, and in my view, with Handel it is those special qualities of melody—of vitality in the melody—that make him different from the others.

I also try, of course, to bring out in Mozart something that makes him different from other, almost equally great composers of the eighteenth century, like Haydn. It’s a funny thing, actually, that very good Mozart conductors are frequently not very good Haydn conductors, and vice versa. I can think of quite a number of examples: Bruno Walter was a Mozart conductor and not particularly a Haydn conductor; Toscanini was a great Haydn conductor and almost conducts Mozart badly—he plays it over charmingly or overhectically.

This is often the case with Handel and Bach. I personally consider myself a good Handel conductor, and yet I feel that I’ve got quite a long way to go before I can equal that in my performances of Bach. I’m talking now about actual interpretation as a conductor. The musical problems of what to do with Handel—how to realize Handel’s music as written down, how to put it into practice—are far greater than they are with Bach, because Bach wrote out a great deal more of his wishes than Handel did. With Bach you have to observe well-known conventions, such as the double-dotting convention by which, in certain cases, dotted notes are extended beyond their written length, and there can be a certain amount of argument about how the written appogiatura notes, the little grace notes, are sung. But the number of problems about performance with Handel is absolutely staggering.

Bernard Jacobson, a former HF contributing editor, has completed a book of interviews, Conductors on Conducting, scheduled for publication by Columbia Publishing Company, Inc., this spring. This article is an adaptation of a chapter from that book.

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Is that because he was writing for professionals more than Bach?

That is certainly the case, yes. And it is also the case, I think, that Bach cared more about how his music was performed. His concern was immediately put into practice. He wrote out the ornamentation because he didn't like to leave it to somebody else. Handel more or less had to leave it to the singers because he was writing so terribly fast that he wouldn't be able to write out every da capo.

The big trouble in Handel is that one doesn't know how much of what he wrote down is to be taken literally, or how much of the conventions of the day one is expected to follow. We know that there was a practice called notes inégales—that, in French music particularly, the music was written as even eighth notes and was expected to be played dotted. We even have evidence of that in the twentieth century in jazz. It is no longer the practice in jazz to do notes inégales unless they're written so, which is rather interesting in the way it reflects the same development in the eighteenth century. It was the practice in the great days of jazz—I mean the Benny Goodman, Glenn Miller era—to write everything as quavers and for it to be played slightly inégale. With Handel you have the terrible problem that he writes things dotted and then writes them even and then writes them dotted again, and you don't know whether he means a difference or not. Almost every work has something similar to the classic case, "The Trumpet Shall Sound" in Messiah, and whatever solution you come to, you're absolutely baffled on how he could leave it in such a peculiar state.

Many of the older conductors of the Romantic period didn't seem to worry that there were all these inconsistencies of rhythm. And it is not absolutely certain that it even worried Handel, nor is it absolutely certain that he did not want it to be played exactly as it's written. A very interesting thing is that, although the opening of "The Trumpet Shall Sound" has, in various editions, different dotted rhythms, for the rest of the aria all the sources are absolutely unanimous. They all change in the same places, and there is never any doubt that that's how it's written.

When Mozart did his arrangement of Messiah, in almost all cases—not all, but almost all—he took the difference between the dotted and the undotted thing as gospel. And when he arranged his own wind parts into it, he just took the difference between the dots and the evens and conformed to it. Of course, the performance practice of music had developed in the interim, but they're still sufficiently near to each other in time so that Mozart's orchestration can be taken as being an interesting comment, when a great composer takes all these funny changes of rhythm and just writes them out.

Then take the introduction to the Fireworks Music, parts of which seem to want to be double-dotted, parts of which seem not to want to be double-dotted in order to fit with other voices, and parts of which, again, seem to require to be notes inégales in order to fit with voices above which are dotted. Handel did two versions of the Fireworks Music himself and wrote two concerti grossi in different keys based on the same material—they're different works, but they're based on the same themes, and nearly all of the Fireworks Music occurs at one point or another in these two concertos. If you look at the various versions of it, he always writes, from the point of view of dotted, exactly the same, which rather suggests that he intends that it shall be dotted when he writes it dotted and that it shall not be when he doesn't. That's very worrying.

I've been going on a lot about this question of changing rhythm, but there is no doubt that there is a lot that has to be put right, that it has to be written down so that modern musicians can play it, and play it properly.

You mean that as a conductor you have to put it in your parts?

Yes. Somebody, in my view, has to edit every work by Handel, in order for it to be properly done. Because there are never any expression marks, and although it is pretty certain that the big choruses of Handel were in fact sung all forte, it cannot be true that they were sung without any variety of color. It is possible that they improvised in Handel's time, and it is possible still today to improvise the expression of a big Handel chorus.

When you say "all forte," do you mean even a passage that's usually done softly like the end of "All We Like Sheep"?

Yes. Well, that's not piano, and it's not even always done piano today. It used to be, in the big forces type of performance. But I always do that forte, even though I do it with a diminuendo at the end. But I would think that it's very likely that it was done in Handel's period all forte, all sort of mezzo-forte.

Where do you get your diminuendo from?

I do it because I feel that it's right. There is now, today, a trend in the performance of old music that wants to perform it exactly as it was done then. In other words, they use old instruments or copies thereof, old pitch, and everything like that. Now in that case, when you do it with instruments that are not capable of much crescendo or diminuendo, you can make a much more authentic performance. A performance much more like it would have been in the eighteenth century. With those instruments
and very small forces, the problems, of course, become far smaller. With a baroque oboe, a baroque violin, et cetera, and a small chorus singing often with boys on the top line, the range of expression is so much smaller that you can understand why it doesn't make much difference even to a composer like Mozart whether a thing is forte-piano, forte, or piano.

Is it for a deliberate, positive reason that you haven't gone into the authentic-instrument style of performance in Handel?

No, the reason is simply that, if you're going to perform a work really authentically in that respect, you would do without a conductor, because they didn't have conductors then. The other kind of interpretation didn't exist—the type of interpretation that a conductor now imposes upon his orchestra, chorus, and soloists when he conducts the Beethoven Ninth Symphony. Even when they had those small forces doing complex works like the St. Matthew Passion or a Handel oratorio, they didn't dream of having a conductor who interpreted the work for them. They had a director who would play from the organ or the harpsichord or the violin, and he was there just to keep it together. So, much as I admire performances of old music that try to recreate the original, they don't need me.

A lot of the concepts we take for granted today, such as making the difference between a crotchet and a quaver plus rest, were never thought of by musicians until the end of the nineteenth century. They're strictly Wagnerian concepts. In the eighteenth century, one time in a piece it will be written one way, the next time it will be written the other. There are many cases in Mozart's operas. No difference is intended, because that wouldn't have occurred to a musician of that time—even a Mozart. He writes so quickly anyway that he writes a crotchet in the upper part and a minim in the lower part. But many people—and many conductors—take that sort of thing terribly seriously. A huge fetish is made out of the Commendatore in the opening of the Don Giovanni overture, where it's a minim in the bass and a crotchet in the treble, and they say, "Hold on!" to the cellos and basses for hours after the violins have stopped, because they think it's the tread of the Commendatore's statue approaching and that sort of thing. Of course, that's absolute nonsense. When Mozart rewrote this passage for his catalog of works, he wrote the bass as a crotchet—which shows how much he thought it was the Commendatore of stone!

Apart from note values, when performing Handel one has to remember how new are so many of the things that we take for granted. Slurs, for example—the fact that it matters whether a slur is over three notes or over four notes. It didn't matter to Bach and Handel; they just would have thought, "I want it smooth." But they don't indicate exactly how many notes they want to be legato or staccato. When it does matter to them, they take very good care to write exactly over a staccato note, and that's why it's a good thing to be able to look at the original manuscript—you can see whether he's just dashing off a slur or whether he's being really careful. An example is in the St. Matthew Passion, in the alto recitative "Mein lieber Heiland, du," where you can see in the manuscript that it is very, very carefully put for a few times with three legato notes and the one staccato.

All these are things that are necessary to do before the performance or rehearsals start. With modern scores and instruments it is necessary—apart from correcting the wrong notes—to indicate exactly what is long and what is short, what is legato and what is staccato, what is loud and what is soft. You can tell these differences very clearly with modern instruments, and modern singers are taught to be very clear about everything, so you have to be more precise when you're writing things down for modern players—and you also need a conductor far more.

The funny thing about old instruments is that there's not only less dynamic range, but less difference between staccato and legato. So the fact that the composers very often didn't indicate and didn't know, exactly, whether they wanted three notes slurred or four notes slurred also stems partly from the instruments, and from the fact that they didn't need to know. Even those instrumentalists didn't need to know. They sort of played it by ear, and they thought, "Oh, he's playing slurred—maybe I'll play slurred." It was, as far as I can see, a free-for-all in the phrasing. How do I know? Because very often a composer would slur a passage once and not do it another time—sometimes even do it only the second time, and you think, "Oh, yes, well, that's supposed to be slurred all along."

You wouldn't think that possibly he was just expecting his conductor to sort these things out, or keeping it in his head because he was the conductor himself? After all, they did rehearse.

Yes, but very little. Rehearsals consisted of correcting the wrong notes and getting it vaguely together—they couldn't sit down and just sight-read everything in those times. How do I know? Because it's only very recently—it's only in this century, in the last few decades—that the ability to sight-read has become such a general thing. In fact, sight-reading was considered one of those rather peculiar talents that only the greatest musicians had. They would say, "Why, he played at sight a whole Mass!" It is something every student could do today. Even when I was a child in Australia (and let's say that Australian music-making then was ten years—or fifteen years even—behind the European standards), you'd have to point out all kinds of things that would
seen obvious to a modern musician, such as that it was not a tremolo, but measured semiquavers. There's a much greater quickness on the part of the average orchestral musician today. I'm quite sure of that.

Does this ability vary in different countries in your experience?

Yes. They're still back in the prewar era in certain places in Europe—Italy and Eastern Europe, for example. I have conducted orchestras that really need lots of rehearsal in order to get the basic things right—the grammar. For instance, I've performed the Frank Bridge Variations of Britten with orchestras in Eastern Europe. Now, that's difficult to play, but it's not difficult to comprehend. Yet you have to do a terrible lot of explaining.

I remember doing the Britten Sea Interludes in Moscow. Really, they had the greatest trouble. You know the "Moonlight" piece, the prelude to the last act, with the triplets against the other rhythm. They just couldn't understand it at all. But this is something you'd just say "Watch" to an American orchestra, and they would immediately understand. It's more rhythm than seeing the difference between forte and piano that they fall down on now. Even today, certain orchestras in the Latin countries too have to be told about rhythms that you would never dream of insulting an American or English orchestra by even mentioning.

I believe Stravinsky, around 1950, commented on the inability of Russian orchestras simply to do the rhythms in The Rite of Spring, written thirty-seven years before.

Yes, they found it completely new. But eighteenth-century musicians, I think, were used to playing new things. They didn't rehearse things very much, but they didn't have to be told about style, you see, because it was all the same style. If they lived in France, they played in the French style; if they lived in Germany, they played in the German style. But what I think they did have to be told was this note is twice as long as the other note. That's a minim. That one is a crotchet—basic things like that.

In this matter of style, how do you apply our modern knowledge of eighteenth-century performance tradition to hostile written, often abbreviated scores?

Knowledge is dangerous. You have to use your instinct to some extent, because you can go on reading the style textbooks of C.P.E. Bach and Quantz and all those writers—literally hundreds of books. Even though they describe how they do it, whenever you try to apply it you find that it doesn't quite work. You end up with something odd.

And I don't think those eighteenth-century musicians really thought very much about it. They knew that you changed rhythms sometimes and not other times. Also, they didn't care so much if it wasn't together. You see, we will always think, "Well now, because the viola is written as a semiquaver there and the voice is written as a quaver, we have to change one to make it come together." Well, very frequently it isn't necessarily right for the voice to sing a note as short as an instrument plays it because it might fit the word.

There's a case in the ¾ section of the Catalog Aria in Don Giovanni.

Yes. Obviously, the way Mozart intended that to be sung—knowing that it would be sung from memory—is as near as possible together with the melody. But you've got to breathe sometime, and therefore you have to sing it as a quaver sometimes: other times it seems to me appropriate to sing it as a semiquaver. In other words, the people who say that it must be changed because it must be together are not quite right. But the people who say, "Ah, everything the Master wrote has got to be done exactly literally because he wrote it that way," they're also not right. You have to use your practical instinct over these things.

This general common-sense position contrasts with the specific argument in your article about appoggiatura ["Sense About the Appoggiatura," in the October 1963 issue of Opera]. You make the point very strongly there that all the sources say, not merely that you may perform appoggiatura...

But that you must.

That is a special case, then, where there is a rule that you have to follow. But what you're saying about eighteenth-century notated rhythm is that you have to apply a lot of common sense and practical performing sense as well.

But you also have to even with the appoggiaturas. There are some cases where it is impossible to do an appoggiatura because of the way the harmony goes or something like that, and very frequently, through applying those rules too rigidly, you can also get into a lot of trouble. And again, you see, most of the rules and examples about appoggiaturas and ornamentation and all these things are taken from composers whose work you don't know. They're never Mozart or Haydn, they're always Graun or Hasse or Cimarosa or someone, and each one of these composers does have a different flavor, a different tendency in these things. So it's terribly dangerous to apply one thing holus-bolus to another.

On the other hand, there is the opposite danger of
thinking that, because Mozart was a great composer—a greater composer than all the others of his period—you have to respect his taste much more than the other composers. That is also a pitfall, because it means that you’re often performing Mozart’s music quite against the convention.

The question of the interpretation of Handel—I’m still speaking of the musicological side, not interpreting by means of conducting—is very difficult because there are almost no examples of actual contemporary realizations of any of his music. Almost all of the examples of ornamentation of the famous works of Handel were made considerably later than the music was composed, and consequently one of the biggest dangers when ornamenting is that you will be out of style, out of the period—more in the manner of Mozart’s period.

It would be convenient for a performer if one could always apply rules of performance practice, but that is not the case. In almost any place in Handel, when you think, fine, you’ve found a rule that you can apply, you find yourself in the wrong near the end of the piece. These questions—editing, ornamentation, all that kind of thing—should be decided by the conductor before he even starts performances. Normally, if I don’t have time to edit a work myself, I get someone to do it with the proviso that I can change it. It’s always done with somebody whom I respect so much, or who respects me so much, that we can exercise the right of constructive disagreement.

After all that comes the question of conductors’ interpretation, in the modern sense, in which a conductor’s Ausstrahlung—his emanation—makes a difference to the performance. Let’s take the Handel choruses. A conductor who has no knowledge of eighteenth-century style at all can make Handel choruses sound absolutely splendid. In fact, he can make them sound better than many a baroque expert, because they are so full of vitality and so full of interest and such immensely complicated ideas, although apparently simple. And that is, in a way, the mark of a great composer, that the further you delve into his music, the more you see complications that often the composer didn’t know about.

If you hear Karajan conducting the opening of the St. Matthew Passion, it’s all very, very smooth, and it’s very, very beautiful, and it does start from fairly soft, and it does build up to a huge fortissimo, and he has the architecture of that great chorus right there in his head. And he does it. It is not in any sense a baroque effect, or an effect that has anything to do with what Bach could have imagined. But wherever you stand on those issues, it seems to me that the conducting of Handel, once the editing is done, is the same as conducting any other composer. You feel the style, you get excited by the music, and you try and excite the performers into feeling the same way as you do about the music.

Now, in a Handel chorus, whether it be sung all forte from beginning to end or not, it’s still necessary to balance those parts so that you can hear all of the important parts all of the time. That’s very often not the case in performances of Handel choruses. But I find that I can achieve very good balance with Handel choruses simply by Ausstrahlung—that is, by emanating my desire to hear the right melody, the right motif coming through. That saves you having to stop the orchestra and the choruses and say, “Please sing that louder, and please do that softer.”

Is it a question of the way you look at that particular group in the orchestra?

Yes, it is partly that, and partly a question of them feeling in the first place what the conductor is trying to do. After all, the essence of conducting is making the musicians feel what the conductor wants in the quickest possible time, so that lots of different musicians are made to feel as one—even in spite of themselves sometimes, even if they don’t agree with you basically, even if the concertmaster thinks, “Oh, well, I would have done that this way myself, but I can see that the other way is a tenable theory.” Provided that the conductor can persuade the musicians of the truth of doing the interpretation in a certain way—all the musicians together, all of them—and make them, as it were, work together for the achievement of that aim, that is the successful conductor. If his way also happens to be good, or something that people will accept, that critics will accept, that the audience likes also, then he’s still more successful—he’s a great conductor.

I’m trying to pin down something very specific about how you actually go on-stage and conduct Handel, as opposed to all the preparation we’ve been talking about. This may be oversimplifying, but would you tend in Handel to bring one part into relief, whereas in Bach you might try to produce a more evenly balanced contrapuntal texture?

No, I think I would achieve equal clarity in whichever composer it was. It is the spirit of the music, the forward movement, the feeling of the line that I think I understand better in Handel than I do in Bach.

Listen to any Handel opera, and you have a sense of whomph, of slancio—dash and abandon.

Yes, they’re so gutsy—they have that elan. They definitely do all have that, whereas most of Bach’s most beautiful melodies are contemplative melodies, aren’t they? You very rarely find Bach writing a very long allegro melody.
One of the very few examples I can think of offhand is that marvelous alto aria, "Sugst mir geschwinde," in the Easter Oratorio, which is un-Bachian in a way—it has that kind of gusto.

Yes, it's very rare in Bach. Bach has lots of gusto in other ways—the contrapuntal interweaving at the beginning of the Gloria in the B minor Mass, that kind of thing. But when he writes a long and beautiful melody, like the air in the Suite in D, or "Sheep May Safely Graze," or the "Christe eleison" in the B minor Mass—they are almost all slow melodies. Handel was marvelous at writing slow melodies—these slow eight-in-a-bar largo melodies are, almost all of them, simply inspired. "He Was Despised" perhaps is the most famous example—but it's in the allegro coloratura arias that he shows such fantastic variety.

What makes me perhaps a good Handel conductor is that I have a feeling for the right tempo. The ability to conduct one composer more than another comes from this unerring sense of tempo in one case and a faltering sense in the other, and I'm sure that's the case with all composers and interpreters. The conductor has only that at his disposal, because a competent conductor takes it for granted that he can conduct anything in time and keep it together and know what are the melodies in the orchestra and keep down the accompaniment—that is the same as being able to play your basic stuff on an instrument.

When I stand up there to conduct a Handel oratorio, I treat it the same as if I was conducting anything else. That is, I emanate staccato or legato, or loud or soft or whatever in the same way as I do for any other composer. It's not done by telling the musicians—it's feeling the emanation, and it is a mysterious thing.

Have you any idea how you do it?

No. No. All I know is that, when I've conducted works like Traviata or Figaro so many times, by simply thinking I can produce an entirely different performance.

On the podium in concert?

Yes, and that's what conducting in the German opera houses is all about—you never get the same orchestra, you never get any rehearsal, and you never get the same singers twice. So, doing a performance in a German opera house is the final test of whether you can Strahl aus, to get all those players to do the interpretation you have in your head.

Is it a problem in Handel, as you conduct around the world, to make orchestras unlearn nineteenth-century playing habits?

Very, very much so. You have to use vibrato also if you're playing Handel on modern instruments—you still use vibrato in a long and beautiful tune—but it's a different kind of thing. Just as you do not play "He Shall Feed His Flock" like the Pathétique Symphony, even though you play it soft and beautiful and smooth. With orchestras that are not used to it, I have a terrible job trying to persuade them to play with short phrases rather than long ones to articulate, to finish phrases off and begin new ones rather than run them all in together, particularly when the melody has a legato character.

The trouble is that, of course, Handel's melodies also sound very good when played the nineteenth-century way. You don't have to go farther than the Largo from Serse. But I was thinking that a real example is the "Air on the G String." When you play the original Bach, you play it legato, you play it smoothly, you play it with rise and fall in the melody, you play it with all the expression that you know about. When you play Wilhelm's version on the G string, you also do that. Now, what is the difference in your interpretation between one and the other apart from the sound of the G string? You can play the G string version an octave higher, on another string, and still make it sound like Wilhelm. The difference is the finishing of the phrases, the rounding off of phrases and the beginning of new ones. You do it in that way in the original, whereas the G string version likes to make it so that you never breathe.

It may be a pompous way of putting it, but where I've found performances of eighteenth-century music particularly at fault is often in the sense that they sound as if they're always "becoming," in the nineteenth-century manner, rather than "being"—a constant sense of waiting breathlessly for the next bit.

And to a composer like Wagner, that principle of becoming was, as it were, second nature, because to him music was something evolving out of something else always, and that was what you did with music. That's what he did with his invention of leitmotifs, you know, whether he called them leitmotifs in the Ring or they were just the motifs that were developed as in Liszt's symphonic poems or as Wagner used them long before he ever called them leitmotifs. This takes from the development section of the sonata form the idea that something develops out of something else, it develops and becomes something different, and then that becomes something different again, and becomes something different still. And that was, to Wagner, axiomatic. And I'm sure he thought that was axiomatic in all music.

Handel can, as I say, sound very good played that way, but it's not the way music was conceived in his period, and the difference is what we mean by style.
Prizewinner. For the second year, Audio-Technica, the cartridge maker, has polled prominent critics and audio specialists to bestow a record award for sonic excellence, and the second winner is Mitsislav Rostropovich's set of the Tchaikovsky symphonies with the London Philharmonic—in, it should be noted, the British EMI edition. In November, Audio-Technica honored the winner at a small dinner in New York, where it happens that the set's producer, David Mottley, has been based since his switch from EMI to CBS. Music editor Kenneth Furie, one of the award nominators, reports: "When Nat Silverman, of Audio-Technica's marketing firm, finally got me on the phone and explained that he'd been trying frantically to reach me, my first assumption was that I was once again late with my award nominations—though I couldn't recall having received any request for them yet. But no, that wasn't it all (whew!); could I come to a dinner that evening honoring David Mottley? Well, with some schedule shuffling, yes, I could, and would, in view of my admiration for Mottley's work, as typified by the remarkable Dresden series of Strauss orchestral works with Rudolf Kempe. "I'm afraid I rather monopolized the guest of honor, but then he is an infinitely engaging conversationalist, and we hadn't had much opportunity to talk at our previous meetings—the first one this past July when I dropped in on his CBS Hänsel und Gretel sessions in Cologne (long enough to hear new samples of Mottley's uncanny combination of incisive, colorful detail and blended warmth), the second one only a few days before the dinner, at a Christie's auction of Wagneriana. (No, neither of us was buying.) "Since this column is principally concerned with news of recordings, let me report a major item: CBS is undertaking an extensive collaboration with Rafael Kubelik and the Bavarian Radio Symphony, to begin, with a Schumann symphony cycle, of which the Fourth is already on tape, and proceeding to Mozart and Bruckner symphonies, which could also turn into cycles. Mottley believes strongly in these 'elder statesmen'—conductors whose long careers have produced an abundance of musical wisdom and technical command (another such, of course, is Eugen Jochum, with whom he was working on a Dresden Bruckner cycle at the time of his departure from EMI)—and the CBS Masterworks people have noticed that their catalog contains some conspicuous gaps Kubelik is ideally equipped to plug.

"I wondered about the sound. The dry quality of most Kubelik recordings has been credited to Munich's Herkulesaal, and since my Cologne visit I had been curious about what Mottley might accomplish there. He had just listened to the Schumann Fourth that day, and he assured me that 'dry' would not occur to him as a description of it. Kubelik, he added, had strong ideas about the sound, which required a fair amount of experimentation in setting up—but from that point work proceeded efficiently. And I had indeed been struck, watching Mottley work on Hänsel, to note that once his basic setup is done he fusses and fiddles less than any of the producers I've seen work. "Mottley's accomplishments include considerable linguistic facility, which helped make him EMI's man in Eastern Europe—and also equips him particularly well to talk about those countries. (Since he speaks Russian, his tales of this year's Moscow Tchaikovsky Competition include delightfully frustrating encounters with Muscovites from cab drivers to In-tourist bureaucrats.) It remains to be seen whether his Eastern European contacts will hear fruit for CBS, but he left little doubt that he would love to work again with those great Saxon orchestras, the Dresden State and the Leipzig Gewandhaus. Meanwhile, Mottley has been working with his countryman Andrew Davis in Toronto."
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In this issue . . . .

our Specialist collector's preamplifier is reviewed in detail. Very properly, we shall not know what the reviewers say until the magazine is published. (We haven't stood still in the months since the review samples went out; numerous minor improvements are incorporated into current production.) Of course, we fully understand that this unique, perhaps esoteric device is of great interest to collectors of old records, but is just a curiosity to most readers.

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with the orchestra: the two Chopin piano concertos (with the sensational young Polish pianist Krystian Zimerman) and Beethoven's Eroica Symphony. The recordings, which Deutsche Grammophon hopes to have out in time for the orchestra's eastern swing this spring, were produced by DG's ebullient Günter Bresch, an infrequent studio participant since his accession as a&r chief.

Also awaiting release is a Giulini Schubert coupling—the Fourth and Unfinished Symphonies—with the Chicago Symphony. And yes, Giulini's Rigoletto is still on the books, now penciled in for September taping. Cast still unsettled.

CBS and the French baroque. Following Lully's Alceste and Handel's Rinaldo, Jean-Claude Malgoire and his Grande Ecuyre et Chambre du Roy have added two more large-scale projects to their CBS discography: Rameau's Hippolyte et Aricie and Marc-Antoine Charpentier's Lescons de Ténébres. Tenor Ian Caley and soprano Arleen Auger sing the title roles in the Rameau (the first Rameau opera, unless we've missed something, to be recorded in duplicate), with Carolyn Watkinson as Phèdre, Lyliane Guittion as Diane, Ulrik Cold as Thésée, and Anne-Marie Rodde, Edda Moser, Sonia Nigoghossian, Jocelyne Chamonin, and Max van Egmond in other roles; the English Bach Festival Chorus is on hand too. Chamonin, Guittion, Rodde, and Ni- goghossian are joined in the Charpentier Lessons by Helen Watts.

Janowitz' Schubert. In Deutsche Grammophon's 1971 blockbuster reissue of Schubert songs performed by Dietrich Fischer-Dieskau and Gerald Moore—twenty-five discs containing more than 400 songs, followed by a supplementary set of the three big cycles—there was an obvious omission in the songs suitable only for female performance. Now DG is filling that gap: Soprano Gundula Janowitz and pianist Irwin Gage have recorded a five-disc first installment of female songs—which of course will involve a fair amount of duplication with the earlier project, since Fischer-Dieskau included just about everything that could be stretched into suitability for male performance.

Arrau's Chopin. Following his U.S. tour celebrating his seventy-fifth birthday, Claudio Arrau traveled to Amsterdam, where he completed his recording of the Chopin nocturnes, begun last spring.
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Jan Dismas Zelenka, Baroque Eccentric

Archiv’s set of Zelenka orchestral works by the Camerata Bern and distinguished guests reveals a composer of startling individuality.

by R. D. Darrell

CZECH-BORN Jan Dismas Zelenka (1679-1745) was one of the most obscure of those rare, inexhaustibly provocative musical "originals"—one not entirely unworthy of comparison with such far better-known examples as Mussorgsky, Janáček, and Ives. Like them, he has often been criticized by the Establishment for his "crudities" and his failure to obey accepted rules.

But just as more flexible-minded listeners have come to realize that Mussorgsky’s music, say, lost much of its essential character and strength when it was "corrected" by Rimsky-Korsakov, such listeners will be quick to grasp that Zelenka too knew exactly what he was doing—and that what he did deserves a fair hearing. I, for one, am convinced that any fair hearing will stimulate a lively admiration for the composer’s skills as well as his idiosyncratic inventiveness.

Zelenka was a very queer bird indeed, and his own secretiveness undoubtedly has been at least partly responsible for his later obscurity. He was by no means obscure in his own day, yet unlike almost all his contemporaries of any note at all, he apparently refused to have his portrait painted or engraved. And among composers of the time, he wrote no operas, neither played the organ nor wrote for it, had only one pupil (Johann Joachim Quantz), never attained a really prestigious Kapellmeister’s post, and seems to have had only a single musician friend (Georg Johann Pisendel). And even after Zelenka’s death in Dresden (where he had worked most of his musical career), mysteries remained: the meaning of the cryptic cipher notations on many of his scores, and the reason why much of his manuscript legacy was hidden under lock and key.

It’s scarcely surprising, then, that his works became well-nigh forgotten until very recently (Heinz Holliger, among others, has been instrumental in resurrecting them), or that there has been no biography (one by the present editor of his works, Camillo Schoenbaum, is only now in preparation). Even entries in the standard reference works are scanty: Indeed, there probably is more information on Zelenka and his music in Dietmar Polaczek’s notes in the present Archiv production’s handsomely illustrated fourteen-page booklet than in any other publication in English.

Creatively, Zelenka was—again unlike most composers of his or any age—a late starter. Nothing is known of his career, or of his studies as a double-bass player and later a composer, before 1709, when he was thirty. (He may have studied with his choirmaster father and at one of the Jesuit colleges in Prague.) In 1710 he went to Dresden as a bassist in the court orchestra of the Elector of Saxony/King of Poland. Five years later (at thirty-six?) he studied for a time with Fux, and in 1716 with Lotti in Venice, where he probably became familiar with Vivaldi’s music, and perhaps also the Red Priest himself. Certainly, Zelenka’s later works show considerable Vivaldian influences, not least the fondness for stark unison thematic announcements. There are also some reminders—in the variety of dance forms and in the use of what must be folk tunes—of Telemann.

But all such influences are relatively insignificant. Zelenka’s music is distinctively, often arrogantly, his own. Polaczek spots some of its most revelatory fingerprints:

What makes Zelenka’s works so fascinating to us today is not so much his complete mastery of traditional polyphony, combined with understanding of Italian cantabile and—to some extent—other national characteristics; it is the powerful subjectivity which purposely breaks again and again through masterly formal patterns. The listener is perfectly at ease in a symmetrically constructed movement, when suddenly this bar, that sequence, or an unusual motif does not fit into the expected picture. ... His uncommon harmonic procedures, fondness for keys related in thirds, and sudden changes of direction give Zelenka’s music a strangely iridescent character. ...

For me, the most striking features are the bold contours of the principal themes (a boldness carried over into the chirographic jaggedness of the autograph manuscripts), the no less daring variety of rhythmic patterns, and—most excitingly—the tremendous driving energy (which even Bach seldom matched) of his fugal and some other fast movements. Even the idiosyncratic sound of Ze-
lenka’s orchestral works is arresting, at least in these recorded performances: The piquantly reedy oboe and bassoon timbres and the plangency of high-register horns generally dominate the string sonorities, except for the strong, inventive bass lines, which undoubtedly owe much to the composer’s long years of drudgery as a double-bassplayer. These quintessentially Zelenkan qualities are revealed at their best in his capriccios. The other works are relatively more orthodox, in formal structure at least. The A minor Sinfonia and F major Overture are suites with several dance movements; the G major Concerto and the Hipocondrie (which scarcely sounds at all hypochondriac) are written in conventional three-section form—fast/slow/fast or slow/fast/slow. And all four works are scored for only one or two oboes and one bassoon with strings. Even so, Zelenka’s originality is irrepresible, and the concerto in particular, with its slow movement’s soulful bassoon lament and the determined, proudly high-stepping drive and long pedal points of the first and final Allegros, is dramatic. The five capriccios are more or less suites, with a longer opening movement followed by several shorter ones—some of them dances, others bearing the evocative names of “Paysan,” “Il Contenuto,” and “Il Furibondo.” (This last “Furious One” is a whirling presto of extraordinary bravura.) All are scored for a string ensemble (here ten players) with continuo harpsichord, a group generally overshadowed by two oboes and a bassoon plus two horns—from which Zelenka demands such prodigious feats of virtuosity that one realizes the baroque-era reputation of Bohemian natural-horn players couldn’t have been exaggerated. Indeed, it is all the great Barry Tuckwell and his able partner Robert Rountch can do to handle such demands using modern valved horns. Oboists Holliger and Hans Elhorst are no less notable, and bassoonist Manfred Sax convincingly holds his own in this distinguished company. I am less happy with Alexander van Wijngaard’s violin solos, which I find tonally whistly and which sometimes lapse into Romantic-expressiveness traps that the others scrupulously avoid. But Wijngaard, apart from touches of similar Romanticizings in some of the slow movements, is an effectively vigorous conductor. And Christiane Jaccottet is a deft if somewhat reticent continuo harpsichordist.

Zelenka has been represented on records before now, mainly with a 1973 Nonesuch disc of four Lamentations. (He was best known in his own day by his church music.) A 1974 Archiv set—two discs containing six sonatas for two oboes, violin, bassoon, and double bass—was apparently never released here; if the sonatas are even remotely as invigorating, that set should be no less car- and mind-opening than the new one.

It’s only fair to warn that music and sonics as pungently provocative as we have here are sure to alienate some listeners as potently as they titillate others. But at the very least, the lie is given to those who assume that all baroque-era music is much the same.

**The Multifaceted Mr. Leonhardt**

*In three ABC/Seon Bach releases, Leonhardt displays flexibility and restraint as harpsichordist and perhaps too much caution as organist.*

by Scott Cantrell

ABC RECORDS’ acquisition of American rights to the German Seon catalog has made generally available some extraordinary recordings that otherwise would have been unknown to most American collectors, beginning with the initial ABC/Seon release, reviewed in March 1977. Having been rewarded with Gustav Leonhardt’s very fine recording of the Brandenburg Concertos (now available as AX 67030/2—minus the facsimile scores included with the edition reviewed in December 1977) and Frans Bruggen’s accounts of the Bach and Handel flute sonatas, we can now take pleasure in three more releases of distinctly above-average interest.

Widely acknowledged as eminent among contemporary harpsichordists, Leonhardt is one of those rare musicians whose performances almost invariably repay very careful attention. He is, of course, a formidable scholar of performance practices, one whose knowledge of seventeenth- and eighteenth-century instrumentation, ornamentation, tempos, phrasing, and articulation is almost unrivaled. He is, moreover, a performer of quite special skill and nearly faultless taste, the characteristics of whose playing I once listed in these pages as “utterly controlled and polished technique, a strong underlying rhythmic impulse, and an understanding of the great musical power of understatement.” If in the past Leonhardt’s work has occasionally been open to criticism on account of insufficient flexibility, such is emphatically not the case with his new recording of Bach’s French Suites. Among the Leonhardt records I’ve heard—and there are many superb ones—this is really in a class of its own.

As I began listening to these performances, I was immediately struck by the relatively generous application of rubato—hardly a typical feature, at least in the past, of Leonhardt’s style—and by the dramatic use of agogic accents (emphasizing notes by delaying and/or prolonging beats). While almost never leaving any question as to the basic pulse of the music, he indulges in a rich vocabulary of rhythmic subtleties, and with the similarly rich variety of articulation he sets the structural details of the music in impressively high relief. In addition to highlighting contours of phrasing, such interpretive nuances engender a compelling sense of motion.
in the final sinfonia do we get a well-deserved display of the performer's technical prowess, and at this point the effect is, to say the least, striking. Few indeed are the musicians to whom such considerations would have occurred.

For the final release in this group, he switches from harpsichord to organ, and I'm less enthusiastic here—the element of caution and understatement seems to me overdone. Although one is left in no doubt as to the drama of the famous D minor Toccata, and the almost tragic character of the C minor Prelude does not go unnoticed, elsewhere I miss a sense of urgency.

Most of the problem comes down to what seem to me unduly slow tempos. Bach had, after all, a reputation as a virtuoso organist, and it is virtually inconceivable that such a reputation could have been built upon such self-effacing performances as these. I cannot in this connection resist comparing these interpretations with those of Wolfgang Rübsam (whose Philip recordings may yet—if we're lucky—trickle into the U.S.), and the comparisons are invariably unfavorable to Leonhardt. It's not that anything is ever remotely bad (although the "O Gott, du frommer Gott" partita does get tedious); it's just that, for all the felicitous details of Leonhardt's playing, I do not get a strong feeling for the momentum that even in slow pieces seems to me indispensable to the performance of Bach's organ music. Rübsam has it: Leonhardt, at least in this case, does not.

The organ in the Waalse Kerk, Amsterdam, which is used for these recordings, was built in 1733-34 by Christian Müller, a disciple of Arp Schnitger and the builder of the magnificent instrument at Haarlem. It is worth noting that, while Bach would have heard such sonorities in his youth and early manhood, during virtually all his productive life he would have been accustomed to the considerably sweeter sounds of the organs in Saxony. (It is instructive to compare the specifications and voicing of Gottfried Silbermann's instruments with those of Schnitger.) This is not perhaps a major point, but it bears remembering that very few recordings of Bach's organ works have been made on instruments truly typical of those with which the composer was most familiar.

A couple of words, finally, are in order on the production of these recordings. The organ discs occasionally show signs of stress, but the harpsichord recordings seem entirely exemplary. I did encounter some noisy surfaces, and I regret the failure to print the specifications of the organ. These considerations aside, I anxiously await future Seon releases—and I hope we'll not have to wait long for Leonhardt's recording of the English Suite.


**BACH: Inventions (15), S. 772–86; Sinfonias (15), S. 787–801. Gustav Leonhardt, harpsichord. ABC CLASSICS/SEON AX 67037, $7.98.**


Prelude and Fugue, in C minor, S. 545; Toccata and Fugue in C minor, S. 565; Fantasia, in C minor, S. 562; in G, S. 572; Chorale Preludes: O Lamm Gottes unschuldig, S. 618; Allem Gott in der Höh sei Ehr, S. 663; Jesus Christus, unser Heiland, S. 665; Jesus Christus, unser Heiland, S. 666; Wir Christenleute, S. 710; Valet will ich dir geben, S. 736; Chorale Partitas: Christ, der bist der heile Tag, S. 766; O Gott, du frommer Gott, S. 767.
Cantelli and the NBC in Stereo
by Harris Goldsmith

Critics have always found it fashionable to disparage the Franck D minor Symphony, but most of the great conductors—until, perhaps, the present generation—have thought enough of the work to perform and record it. I reviewed no fewer than five editions in these pages during 1977, so presumably the public continues to think well of it too. The symphony belongs to that group of rhetorical late-Romantic compositions that can grow or shrink according to the mode of performance; while an unsubtle reading of questionable taste can inflate (and reduce!) it to a tub-thumping bore, an interpretation of cool-headed logic and passionate commitment can minimize its repetitiveness and focus attention on the noble exaltation.

There are almost as many divergent views on how to play the symphony as there are recordings of it. RCA's new issue deserves attention on several grounds—historical, musical, and technical. It is, first, one of the few commercially available documents of Guido Cantelli, and the only current one of his collaboration with the NBC Symphony, the orchestra that many thought best understood his style. Second, Cantelli's interpretation scrupulously balances the work's structural and mystic elements and—for my taste, at least—adds up to an imperious statement. Third, the dramatic improvement of the stereo edition here issued for the first time, over its original mono counterpart enhances those musical values and in addition provides the only stereo recording of the NBC Symphony playing under one of its two regular maestros. (The few Stokowski discs made slightly afterward with "Members of the NBC Symphony" don't count, since that conductor experimented with the seating arrangement, and—to say the least—encouraged a sonority, and in particular a mode of bowing, quite unlike that favored by Toscanini and Cantelli.)

This is an incredibly successful example of early stereo—indeed a firmer, cleaner registration of the score than many more recent recordings. (It is certainly less cavernous and blasting than the sound RCA gave Pierre Monteux and the Chicago Symphony nearly a decade later.) The distribution of the orchestra is faithfully re-produced—double basses lined up along the left wall; first and second violins divided left and right (Toscanini once said that the violins in the orchestra were like a pair of shoulders); cellos center left; violas center right; timpani to the rear right; woodwinds, brasses, and harp in the center—and innumerable details in the scoring are clarified by these spatial relationships. Moreover, the prevailing sonority, while retaining its original clarity and (in the brasses and timpani) hitting impact, is warmer and more sensual than the harsh, dry mono disc. This is, of course, all to the advantage of the music.

It is difficult to say how much of the improvement is due to the different microphone placement of mono and stereo editions (the recently issued stereo version of the 1954 Rubinstein/Reiner Brahms D minor Concerto—RCA ARL 1-2044, June 1977—also sounded sleeker than its mono edition, but not as solid and centered as the Cantelli Franck) and how much is due to advances in tape-to-disc mastering. In any case, the international lapses are far less apparent in the stereo version, and climaxes surge more red-bloodedly.

Cantelli had training as an organist and in his student days conducted a choir. Both qualities are applied to his performance of the Franck symphony. The special blending and intertwining of strings with brass and woodwind lines sound very reminiscent of an organ. Straightforward though Cantelli is in basic approach, he is far more sympathetic to coloristic and sensual effects than such conductors as Boult, Klemperer, and Szell (the latter only in concert; he never recorded the work), and he shows himself here to have been a master of the fermatas, a device beloved of choral musicians.

In some of his best performances of this symphony (those of January 1949 and January 1954 especially), Cantelli took a considerably slower tempo for the first movement's Lento and sounded self-consciously episodic when he arrived at the pauses and gear shifts. The recorded performance represents a modification of his views; while the deliberately paced Allegros impart a strong and solemn character, the music does have a flowing forward pulse. It should also be emphasized that the contrast between Lento and Allegro non troppo, so crucial to the first movement's architecture, is never violated here as it is in the eccentric 1954 Furtwangler interpretation (London Treasury R 23207).

The beautifully succinct reading of the second movement combines the elements of slow movement and scherzo, and the third movement moves resolutely through a succession of miraculously gauged climaxes. Throughout, the beautifully tapered instrumental solos sing forth with a touching poignancy and simplicity of means. The performance, in fact, can serve as a demonstration of the difference between self-serving bathos and genuine expressivity.

Cantelli's Franck joins Monteux's sane and eloquent reading in occupying that successful middle ground between melodrama and understatement, yet differs from it in being more angular rhythmically and more sensitive to detail. This may be "only the Franck symphony," but it is a quite special—and unexpectedly well-recorded—performance.
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That baroque-music performances by major orchestras need not be hopelessly anachronistic is persuasively proved by this recording by Chicago Symphony members under James Levine, the first release in RCA's projected "Music from Ravinia" series. In a catalog already well-supplied with Brandenburgs, these vital and strongly rhythmic readings—one player to a part—are worthy of comparison with the best.

Levine's tempos are agreeably energetic. Fast movements are treated as buoyant dances; slow ones maintain a nice sense of momentum. The string sound is marred by unrelenting vibrato (during the baroque period strong vibrato was used only as an occasional ornamental or expressive device), but there is some fine wind playing—oh no Ray Still's sensitive performances would melt the hardest of hearts. Special praise is also due Levine's virtuoso harpsichord obligato in Brandenburg No. 5, although I would have preferred a considerably more rhapsodic treatment of the long first-movement cadenza. I would have been happier, too, had trumpeter Adolph Herseth exchanged his rather questionable trill on the last note of Brandenburg No. 2.

In the Wedding Cantata we are treated to some exquisite tone and extraordinarily sympathetic musicianship from soprano Kathleen Battle. Her diction is not always ideally clear, but the beauty of her lyric voice is a persuasive compensation, and we are given texts and translations on an inserted sheet.

The sound is good, if glossy. Recording-session photographs showing a separate microphone directed at each performer document the technical overkill. S.C.

**Bach**: French Suites; Inventions; Sinfonias. Organ Works. For a feature review, see page 84.


In a 1955 interview, Nathan Milstein said that his mentor, Auer, stood at his side as he practiced this concerto, jabbing him in the temple whenever a note was out of tune, and that the recollection of this novel teaching method gave him a migraine whenever his fingers fell wide of the mark. Salvatore Accardo, who worked with Milstein, displays an inborn cleanliness similar to that of his teacher (I presume he acquired his good habits less painfully). In any event, Accardo's manner here is that of a patrician—the sound he produces is vibrantly pure, its lean intensity almost verging on the ascetic. His phrasing, too, points to that direction—swift, undivided, unobtrusive. Kauffman kept economy and unobtrusiveness in the choice of cadenzas (albeit slightly revised by the performing soloist) over the more often encountered Kreisler ones.

Kurt Masur and the Gewandhaus Orchestra support Accardo in a strong, characterful, Teutonic manner, but there is some interpretive inconstancy. "Tutti" are in general more militant than lyrical passages, where the pulse threatens to go slack and articulation becomes less precise. The otherwise fine engineering is also inconsistent. The orchestra recedes slightly whenever the violin enters—although for some reason the crucial drumbeats are heard more prominently at the beginning of the
soloist’s exposition than at the start of the orchestral one. There are also minor balance problems, as in the passage leading to the third movement cadenza, where the rondo theme’s passage from instrument to instrument is better clarified in the Zukerman/Barenboim/Chicago recording (DG 2530 903, Aug. 1978); in nearly every other way, though, I find the Accardo/Masur treatment more congenial.

This is, in fact, one of the distinguished Beethoven violin concerto recordings, and one that demonstrates that finely sprung rhythm is more important than fastness or slowness of tempo (tempo here are of the golden mean).

H.G.


Dorati recorded the Beethoven Fourth and Fifth Symphonies in mono with the Minneapolis Symphony and has already remade the Fifth in stereo, with the London Symphony. (The two overtures that filled out that LSO Fifth, in fact, reappear here as fillers.) The new Fourth, far more effective than the old one, is a worthy addition to the catalog. The pacing is brisk and firm; the orchestral playing is clear; the Adagio’s sentiment is probed without being sentimentalyzed. Dorati now observes the first movement repeat.

The new Fifth, first released in England in 1975, launched Dorati’s Royal Philharmonic Beethoven cycle, and some less-than-unanimous attacks and the slightly bloated sonic ambience betray the still incomplete rapport among orchestra, conductor, and recording crew. Although this remains a knowing interpretation (retaining such Dorati touches as the detached first note of the famous oboe recitative), the LSO version was more galvanically executed, had more sharply contoured sound, and omitted the last-movement repeat—a repeat that to my mind impedes the drama.

The reissued Egmont *Consecration of the House* Overtures are muscular and well conceived in Dorati’s prevailing low-keyed, objective manner.

H.G.

**BERG: Chamber Concerto; Four Pieces for Clarinet and Piano, Op. 5; Sonata for Piano.** Op. 1. Daniel Barenboim, piano. Pinchas Zukerman, violin (in the Chamber Concorso); Antony Pay, clarinet (in Op. 5). Ensemble InterContemporain, Pierre Boulez, cond. (in the Chamber Concerto.) (Gunther Breest and Wolfgang Stengel, prod.) DEUTSCHE GRAMMOPHON 2531 007, $8.98

In the decade since I reviewed Pierre Boulez’ first recording of the Berg Chamber Concerto (Columbia MS 7179), the five other recordings with which it then shared the catalog have all vanished. Now Boulez presents a fresh version, with the same pianist as before (Daniel Barenboim), with Pinchas Zukerman instead of Sashko Gavrilov as violin soloist, and with the Parisian ensemble associated with IRCAM instead of players from the BBC Symphony. Without question, DG’s recorded sound is cleaner, better balanced, and more realistic, and the performance is of comparable skill, if no more Viennese in character than the earlier one. More about playing the notes than playing the music, both of these performances are ultimately unsatisfying. (A suggestion for Philips: How about recording the Chamber Concerto with the Netherlands Wind Ensemble, Arthur Grumiaux, and Alfred Brendel?)

The oversize performance of the Clarinet Pieces. Berg’s closest approach to the aphoristic brevity of his colleague Webern, is quite fine, highly contrasted and dramatic. I wish some of the same flair had stayed with Barenboim for his performance of the piano sonata, fluent but rather under-vitalized. I don’t know most of the other current recordings of these works (though I would expect much of Richard Stoltzman’s recording of the Clarinet Pieces, on Orion OHS 73125), but if you want the best current Chamber Concerto, the rest of this DG record is also good value.

D.H.


The title of the fourth of Leonard Bernstein’s 1973 Charles Eliot Norton Lectures at Harvard University is: “The Delights and Dangers of Ambiguity” and to a certain extent Songfest exemplifies both. This most recent of Bernstein’s larger works was a long time in coming. It started out as a Bi-centennial commission, but has never been completed in time. The premiere finally took place on October 11, 1977, in the Kennedy Center, with the composer conducting the National Symphony Orchestra; the soloists were the same as those heard on this disc.

During the two years Bernstein worked on the score, it bore many titles: An American Songfest, Six Characters in Search of an Opera. Notes Toward an American Oper, Martial Melodies, A Secular Service. and Bullet for Voices were among those he rejected. None seemed just right—and neither does the name ultimately chosen for a work intended (in the words of Jack Gottlieb) “to draw a comprehensive picture

**Critical Choice**

The most noteworthy releases reviewed recently

**BARTÓK, STRAVINSKY:** Two-Piano Works. Kontarskys. DG 2530 964. Nov.


**BOYCE:** Symphonies (8). Marriner. ARGO ZRG 874. Jan.

**BRUCKNER:** Symphony No. 5. Karajan. DG 2707 101 (2). Jan.

**DVORAK:** Cello Concerto. Perényi, Oberfrank. HUNGAROTON SLPX 11866. Feb.

**HAYDN:** Il Mondo della Luna. Auger, Alva, Dorati. PHILIPS 6769 003 (4). Dec.


**MAHLER:** Symphony No. 5; Symphony No. 10. Adagio. Levine. RCA ARL 2-2905 (2), Feb.

**MAHLER:** Symphony No. 6. Karajan. DG 2707 106 (2). Jan.

**MESSIAEN:** Turangalila Symphony. Previn. ANGEL SB 3853 (2). Dec.


**PURCELL:** Dido and Aeneas. Troyanos. Stile Lirico. LEMAR ARL 1-3021. Dec.


**STRAVINSKY:** Pulcinella Concerto. et al. Boulez. COLUMBIA M 35105. Nov.


**IDIL BIRET:** Piano Recital. FINNADAR SR 125 (direct-to-disc). Dec.

**NIGEL ROGERS:** Airs de Cour; French Drinking Songs. PETERS PLE 050. Dec.

**RODOLPHE SERKIN:** On Television (Piano Recital). COLUMBIA M 2 34596 (2). Nov.

**MARTIAL SIGNER:** French Song Recital. 1750 ARCH RECORDER 1766. Nov.

**SPANISH CATHEDRAL MUSIC in the Golden Age.** TELEFUNKEN 36 35371 (3). Dec.

of America's artistic past, as seen in 1976 through the eyes of a contemporary artist [setting to music] the words of thirteen poets embracing 300 years of the country's history. The subject matter of their poetry is the American artist's experience as it relates to his or her creativity, loves, marriages, or minority problems (blacks, women, homosexuals, expatriates) within a fundamentally Puritan society." That's a tall order and a typically Bernsteinesque under-taking, and it is hardly surprising that he does not fully succeed.

Songfest cannot be termed a song cycle in any accepted sense—no unifying thread runs through this strange assemblage of poems by Frank O'Hara, Lawrence Ferlinghetti, Julia de Burgas, Walt Whitman, Langston Hughes, June Jordan, Anne Bradstreet, Gertrude Stein, e. c. cummings, Conrad Aiken, Gregory Corso, Edna St. Vincent Millay, and Edgar Allan Poe. Benjamin Britten managed to pull off a tour de force in knitting together apparently disparate verses with his Serenade for Tenor, Horn, and Strings, but Bernstein stacks the deck against himself by demanding six different voices, as well as duets, trios, and sextets. He even uses the Hughes and Jordan poems simultaneously sung, an intellectual circus act that simply impresses by its difficulty but fails to touch the heart.

Indeed, there is too much by way of artful construction in Songfest, and too little by way of eloquence—surely a strange state of affairs for a composer so emotional as Bernstein. At the time of the Norton Lectures, he could say: "Tonal music is no longer dormant; it has been admitted into the avant-garde world sneakedly at first, and then with radical new approaches through which composers have found a way again to share in the fruits of the earth." By the time he got around to composing Songfest, however, he had embraced total eclecticism unabashedly, and in Ferlinghetti's "The Pennycandystore Beyond the El" the tone row is the hero, while in Aiken's "Music I Heard with You" tonal and serial techniques counterpoint each other.

The best songs are those in which Bern-}

stein wears his heart on his sleeve—Whit-
man's "To What You Said," wonderfully sung by Donald Gramm; Aiken's "Music I Heard with You," as sung by Rosalind Elias; and especially Millay's "What Lips My Lips Have Kissed," as projected by Nancy Williams. The rest are, well, puzz-

This is surely one of Bernstein's most enigmatic works; if it has any secrets, it does not reveal them easily. This is a musical score that masks rather than illuminates the persona of its composer. As I hear it, Songfest is the bitter fruit of a difficult, dry period in his creative life, a transitional work pointing to an unknown future. After the wounds heal, perhaps Bernstein will once again sing easily.

Boccherini: Quartets for Strings (6), Op. 32. Quartetto Esterházy. TELEFUNKEN 26.35337, $17.96 (two discs, manual se-

The Boccherini revival seems to be picking up. In October 1978, I reviewed two batches of string quartets, the composer's favorite genre, and now Telefunken presents six quartets composed around 1780. Though perhaps not on a par with the best of the quintets, these works are nevertheless very interesting, and music scholars laboring in the area of the second half of the eighteenth century are still astonished how Boccherini came to establish the string quartet all by himself—ahead of Haydn.

When first listening to this music, one is a little bewildered by the variety of moods, rhythms, melodies, violin and cello cadenzas, funeral marches, lamentos, energetic minuets. Spanish dances, virtuosic presto finales, development sections full of surprises, and so forth. Yet upon repeated hearing, things coalesce and it becomes clear that the formal construction is not at all haphazard, but is imaginative and highly individual. What puzzles the researcher is that Boccherini had no ances-

parner in a four-part setting. As early as Op. 2 (1760, but probably composed even earlier), he made his debut with genuine string quartets. Unlike Haydn, he did not first go through an experimental stage with divertimento quartets; his concept was fully realized, and while there was no pattern, the scheme did not change to the end of his life.

String music requires a performing style that has elegance, wit, piquancy, and svu-

Unfortunately, most of this is missing in the Quartetto Esterházy's presentation, and I don't think that Haydn's sturdy standbys at Esterházy, the violinist Luigi Tommasini and the cellist Anton Kraft, would approve of it. The first violin's tone is unattractive, often glassy, and since his leading role affects the entire ensemble. Boccherini was very conscio-
sious of colorful string sound, often creating remarkable sound combinations, but what he gets here are chords that sound as though played on a harmonium. The affable singing Andantino in Op. 32, No. 5 (and other such melodious movements), is benefi-
t of any sensitive ear. The first violi-
lin has the bad habit of squeezing out a cre-
scendo just before releasing a tone, there is little vibrato, and the phrasing is labored.

Now what went wrong? It is stated that "the Quartetto Esterházy set itself the task of getting as near as possible to the style ideals of the eighteenth century in order to re-
dow classic musical with its original power of conviction and vitality. For this purpose it makes use of old instruments and thus inevitably adopts the performance techniques connected with them." Setting aside the question of "original instru-
ments" (by about 1800 practically every string instrument had been modernized; un-
less a major regressive operation is per-
formed, an instrument cannot be called original), we are left with the ensemble's claim of following the performance tech-
niques of old.

What were those techniques? Nearly ev-
}

erything we do today in string playing was known and practiced long before the seven-
rings time; the only advantage we have is the Tourte bow. Leopold Mozart, in his fa-
vorous violin tutor of 1756, deals with a mod-
er style of violin playing, and every early theoretician and critic insisted on a full, round, warm string tone (Geminiani wrote an entire book on the vibrato)—not the shallow, cold, mechanical style that the Esterházy and similarly disposed en-
sembles inflict upon us.

Did the members of the quartet read Ludwig Füschner's thoughtful notes? This dis-
tinguished author of the history of the string quartet speaks not of historical minute-
less, but of unwary music; for indeed there is no such thing as "old" music, only music that endures and breathes. We make music not in order to satisfy history, but for the living listener.

P.H.L.
If you’ve wondered where all the yesterdays went.

Those golden days, the era. Those golden days of Silence, was it?

Rhythm," along, market. Man said. General," Wurlitzer

In Sound Relax and Love."

I in the last time, to their third album. Remember it, as they reprise "Von ewiger Liebe," her account of which is admirable, it is less helpful in lighter, more buoyant material like "Das Mädchens spricht," in which her voice does not sound ideally free or pure. Furthermore, some of the song's highs, especially "Von baldbekrönzten Höhe" and "Immer leiser wird mein Schlummer," clearly tax her resources to the utmost. Nevertheless, the bulk of these songs suit both her vocal capacities and her untricky yet subtle interpretative approach.

Ameling's gifts may be seen at their finest in "Des Liebsten Schwur," a song that depicts a young girl's ruminations on her boyfriend, whom she loves in spite of her father's objections. She draws the rather instrumental vocal line beautifully and projects vividly the psychology of the scene: the father's sulkiness, the daughter's yearning and her dream to be gone from home. Moreover, because it is rather differently divided between each of the four stanzas, the song, though modest in scale, takes on an irresistible dramatic impetus. Other finely realized items here are "Agnes."

In die Beeren," "Wien genüßt," and "Sandmännchen," the latter a folksong arrangement.

As one has long since come to expect, Dalton Baldwin's accompaniments are superbly judged. The recording is a little congested at the climaxes but otherwise sounds very natural. The pressing of one side of my review copy was rather noisy, an unusual occurrence with Philips records. The enclosed texts and translations have not been proofread carefully enough—"his," for example, coming out "hüs" and "brtsh."—Trush.

D.S.H.

Comparison—same coupling: Menuhin, Boult/London Sym.

Accardo plays with cool incisiveness, but it is the orchestra that gives these performances their special distinction. Masur is not a colorist in the accepted sense, yet his granitelike solidity and the austere bass-oriented sound of his ensemble provide contrast and firmness of outline. (The engineering puts the ears much closer to the proceedings than did some previous Masur/Gewandhaus recordings.) The unusual prominence of such lower instruments as the bassoons imparts a stark power to some of the tuts. Another felicitous touch is the precisely measured tremolos announcing the third movement of the First Concerto—suggesting a kinship with Beethoven's Eighth Symphony I had never dreamed of.

Other interpreters have given more sun-drenched, Romantic performances of these works, but I find the mixture of somber weight and knife-edged volatility fascinating. Even though the Menuhin/Boult coupling of the two concertos (Angel, May 1973) offers authoritative musicianship, Accardo's superior virtuosity recommends the present disc—in fact, the Second Concerto has never sounded so strong on records. (An Accardo/Masur disc of Bruch's otherwise unrecorded Third Concerto and the Scottish Fantasy is in the offering.)

CHARPENTIER, M.-A.: Choral and Instrumental Works, Gulbenkian Foundation Chorus and Orchestra (Lisbon), Michel Corboz, cond. [Peter Willemsen, prod.]. ERTA STU 71002, $9.98 (distributed by Euroclass Record Distributors).

Te Deum (with Elsa Saque and Joana Silva, sopranos; John Williams, countertenor; Fernando Serafin, tenor; Philippe Hussenlocher, baritone; Jose Oliveira Lopes, bass; Antoine Sibertin-Blanc, organ) Salve Regina, Te

nebrois taceti sunt (with Hina Dordoni: Mezzosoprano Domeni: Mer. Seniores populi (with Williams).)

LULLY: Te Deum. Jennifer Smith and Francine Bessac, sopranos; Zeger Vandersteen, countertenor; Louis Devos, tenor; Philippe Hussenlocher, baritone; "A Choeur Joie" Vo
cal Ensemble, Jean-François Paillard, cond. [Pierre Lavois, prod.]. ERTA STU 70927, $9.98 (distributed by Euroclass Record Distributors).

The cultural life of seventeenth-century France was heavily concentrated around the court, and so the treat that Louis XIV generally preferred to satisfy his ecclesiastical obligations by attendance at Low Mass necessarily implied little demand for large-scale orchestral Masses of the sorts that became popular elsewhere in Europe. To lend appropriate royal dignity to the ordi


HIGH FIDELITY MAGAZINE

CIRCLE 6 ON PAGE 107
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ration, the relatively austere style of the French composers contrasts strongly with the subjectivity and even flamboyance of Blow and Purcell. Lully manipulates great vertical blocks of sound to powerful effect, but the sensation of sheer grandeur is rarely set in relief by real melodic or contrapuntal interest, or by the expressive harmonic sounds so tellingly deployed by the English composers. In these respects Charpentier’s Te Deum is more richly endowed, yet even here—despite Charpentier’s ties (through his master Carissimi) to the more affective music of Italy—it is Lully’s formal style that prevails. Lully, though, the Italian influence is unmistakable, and listening to the sometimes sensuous counterpoint one gets a better sense of that sometimes tense rivalry between the French and Italian goûts, over which ink would be spilled well into the next century.

Lully’s Te Deum dates from 1677, and Charpentier’s must have been composed around the same time, so the conjunction of these two recordings makes for a nice tercentenary memento. (It was, incidentally, with a previous recording of the Charpentier Te Deum that the Erato label was inaugurated twenty-five years ago.) These new performances, although by different forces, are of markedly similar character—satisfactory, if not exactly the last word in stylistic authenticity. The choirs are considerably better than those one often encounters on French recordings, but in both cases the tone is rather more opaque than one might have wished. There is some lovely singing from counterenior John William’s whose voice I greatly admired on the recent Erato recording of Purcell’s Come, ye sons of art, but most of the soloists are fairly undistinguished and tenor Fernando Seralin is all but unbearable. I confess, too, that the brash Maurice Andre-style trumpet sound—quite aside from its inauthenticity—strikes my ears as manifestly ugly, and I found the inappropriate inverted movements and missing cadential trills distracting.

Both recordings favor a spacious and resonant sonic perspective, which is quite as it should be, but a sharper focus within the general ambience would have been preferable. This, I suspect, would have improved the definition and transparency of both choral and orchestral sound.

S.C.


Rubinstein
Bartók
Szád

RCA 1234 2636
CDA 2430 2071
DG 2536 37

Freire has always been notable as a colorist, and the Brazilian pianist commands a virtuoso technique of the highest order. In fact, his Telefunken Chopin recital (641447, October 1975) and the earlier Op. 28 Preludes for Columbia (M 30486, October 1971) were characterized by a heartless efficiency that robbed the music of both excitement and intimacy.

Fortunately, that prevailing slickness is

less obtrusive in these performances. Freire is helped by Telefunken’s spacious, bright piano reproduction—the high notes near the beginning of the B minor Scherzo sound startlingly lifelike and happily forecast what follows. The performances, although employing tasteful exaggeration and “tradition,” are swift and cogent, a far cry from the tinkly superficiality heard in this music from Freire’s countryman Roberto Szidon (DG, October 1978), though in the last resort less involved and solidly paced than the work of yet another Brazilian, Antonio Barbosa (Connoisseur Society, March 1975). And, of course, there is Arthur Rubinstein’s RCA account in aging but nonetheless serviceable sound.

Freire plays the great Op. 45 Prelude and the decorative Op. 72 Ecossaises (of ballet fame) with equal refinement. H.G.


Some of Michelangeli’s recent recordings—for example, his pair of Haydn concertos (Angel S 37 136, February 1976) and Schumann’s Carnaval (Angel S 37 137, December 1975)—have been contrived and almost totally devoid of life. He has, however, always been at his most convincing in Debussy and Ravel and remains so here.

From the opening chords of "Dunseaux de Delphes," exquisitely weighted and clearly enunciated, one notices a magnificently solid, ringing type of piano sonority and a mode of performance that, while characterful and at times provocative, remains logical and cohesive. Michelangeli is particularly convincing in "Le Vent dans le plaine" and "Ce qu’a vu le vent de l’est," both of which gather almost menacing velocity, and in "La Cathédrale engloutie," which sounds positively Gothic in his measured pacing and huge dynamic scale. Unlike Paul Jacobs in his recent Nonesuch version—HB 73031. December 1978—Michelangeli does not speed up in the notes leading to the big climax on page 2, a variant called from Debussy’s Welle piano-rolling record of the piece, but fearlessly expands at a solemn tread.

So it proves Michelangeli’s angular, dynamic musical personality is lessrbissive than some of the gentler things Debussy asks for. The middle section of "La Danse de Puck" is rather pokery-faced; this "Fille aux cheveux de lin" seems to have "been around" more than the innocent damsel Debussy had in mind; there is little of "the tender regard" asked for in "Des pas sur la neige." But other details, even novel ideas, are convincing—the way, for instance, Michelangeli negotiates the tempo dichotomy in the middle of "La Sérénade interrompue." "Voiles" and "Les Sons et les Parfums tournent dans l’air" respond better than I might have expected to Michelangeli’s X-ray definition. In many ways, this is a very special release. H.G.


TETRE RECORDS 4072. $7.98


Dohnányi composed his C minor Piano Quintet, Op. 1, in 1906, and Brahms, hearing it performed, exclaimed that he couldn’t have written it any better himself. All the Brahmsian idiosyncrasies, and most of his virtues as well, are indeed to be found in the beautifully crafted work, and although Dohnányi’s subsequent music unquestionably assumed greater individual profile, the Hungarian composer/pianist remained quite close to the Brahmsian model. This implies no lack of originality on his part; it’s just that Dohnányi (1877–1960)—like his younger and more revolutionary countrymen Bartók (1881–1945) and Kodály (1882–1967)—continued to speak, stylistically, a dialect of German Romanticism, with classical syntax.

After hearing all this chamber music from the composer best known for his piano-and-orchestra Variations on a Nursery Song (a clever assimilation of virtually every nursery-rhyme rhythm) in 1891, I am the more receptive to Brahms’s glowing assessment; it increasingly seems to me that Dohnányi’s neglect is a grievous oversight.

Admittedly there are tedious spots, where hemiolas and cross-rhythms threaten to become a substitute for genuine melodic inspiration, but the same problems abound in vintage Brahms—in the Op. 51 string octets, for example—and I find Dohnányi’s writing as a whole far easier to accept than Elgar’s and Bruckner’s, two other late Ro
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manics who became fashionable after years of relative obscurity. Perhaps Dohnányi’s fortunes, too, will rise; his music does not seize and overwhelm the emotions as does that of Mahler (yet another rehabilitee), but it is far too attractive to continue gathering dust.

All the performances on these three discs are competent, and most are considerably more. The New London Quintet’s reserved style in the C minor Piano Quintet is robust enough, and the engineering (and excellent HNH pressing) frames the glowing piano/string sonorities with cushioned resonance. The overtone rendition of the better-known string-trio serenade, though, is on the gentler side; there is nothing actively wrong with it, but it lacks the biting incision of the classic Heifetzy/Primrose/Feuermann recording. Both Hungaroton discs offer committed interpretations in sound of purposeful closeness and astringency—particular high spots are the dark, sultry sound of Bela Kovács’s clarinet in the 1935 Sextet and the tensile, charged playing by the Kodály cellist in the D flat Quartet’s treacherous second-movement ostinato. H.G.

FRANCK: Symphony in D minor. For a feature review, see page 85.

HUMPERDINCK: Hänsel und Gretel

Ernst von Dohnányi
Music too attractive to be neglected

The score and the orchestra slumbering with him. The Vienna Philharmonic may be the ideal orchestra for Hansel, but it’s got to do more than show up to collect the prize. When the horns’ opening statement of the prayer sounds this tepid, it comes as no surprise that the rest of the overture has neither power nor spark, that the “Hexennrit” is innocent of either menace or exultation. The performance is in general dispiritingly matter of fact, and so is the engineering. I am astonished to report that the Angel edition of the early-Sixties Cluytens/Vienna Philharmonic recording, although marginally less detailed, sounds far livelier.

But then, so do all the other recordings, including EMI’s English-language version with Sadler’s Wells forces (once available here on Capitol)—Marin Bernardi’s spunky leadership and the orchestra’s gutsy response make up for the lack of polish. I’d still like to hear the Vienna Philharmonic with all the stops pulled out, but meanwhile Humperdinck’s radiant orchestral writing has been especially well realized by the Bavarian Radio Orchestra under Kurt Eichborn (Eurodisc/RCI) and the Cologne-Gürzenich Orchestra—in SQ under Heinz Wallberg (German EMI). (The Gürzenich Orchestra will be heard again in Columbus’s forthcoming recording under John Pritchard, and without prejudging the result I can report that the playing I heard at one session was sumptuous.)

London’s casting too is stronger on paper than in the graves, except for the title roles, which really aren’t terribly demanding—a pair of steady, attractive voices will go a long way. Still, Lucia Popp (Eurodisc/RCI’s Dew Faust) is a thoroughly winning Gretel, and the weight of Brigitte Fassbaender’s mezzo, a darker instrument than is customary for Hansel, compensates for her relative blandness.

The other principals are variously miscast. Some fifteen years ago, in the Angel set, Walter Berry was a wonderful Father (surpassed only by Eurodisc/RCI’s Dietrich Fischer-Dieskau); today he’s not. Julia Hamari is a lovely light lyric mezzo (really a soprano without a top), but the Mother is a dramatic-mezzo role and the mismatch produces predictably blown results. The casting of Ann Schlemm as the Witch strikes me as incomprehensible both before the fact and after, unless your taste runs to whooping and squealing: whatever vocal assets she may once have had are gone, though she is apparently not yet fifty. Christa Ludwig (Eurodisc/RCI) has shown that the Witch can have a grand time while singing rather than mangling the vocal line, but Norma Burrowes and Editza Gruberová perform their spritely duties adequately.

Even with Columbia yet to be heard from, it’s hard to see where this Hansel fits in an already crowded field. For children, the Sadler’s Wells English version, now in the British HMV Concert Classics series, is an obvious choice if you can find it (it’s a fine performance by any standard—with a future Brunnhilde and Wotan, Rita Hunter and Raimund Herincz, as the parents); otherwise the old Met edition (Odyssey Y2 32546, mono) will do. The Electrola set has, in addition to Wallberg’s distinguished reading, attractions for several special-interest groups: enthusiasts, fans of Hermann Prey (the Father) or Edda Moser (the Witch) or Ilse Gramatzki (the Mother), and those who have always wanted to hear the title roles and the two fairies sung by children (including a quite agreeable Gretel).

For a general recommendation, the Eurodisc/RCI set is pretty hard to beat, although the Angel, with a stronger Mother (Grace Hoffman), is a plausible alternative—in particular for partisans of its Hansel and Gretel, Irmgard Seefried and Anne-leslie Rothenberger. For that matter, now that the much-adormed Angel mono recording under Herbert von Karajan, in which Seefried partnered Elisabeth Schwarzkopf, has been reissued in England, it is no doubt turn up here in some form to further complicate the choice. K.F.

JANÁČEK: Quartets for Strings, Nos. 1—2.

Smetana Quartet. [Eduard Herzog, prod.] SUPRAPHON 4 11195, $8.98 (SQ-encoded disc)

Comparison: Janáček Quartet

The two canonical Janáček string quartets date from the astonishing final decade of the composer’s life, during which he created some of the most passionately individual music of our time. No. 1 is a close programmatic setting of Tolstoy’s novelette The Kreutzer Sonata; No. 2, called Intimate Pages, is an apotheosis of Janáček’s late-life-affair with the young Kamila Stříblová.

In its remake of this coupling, the Smetana Quartet uses new editions published in the 1970’s and Seventies, prepared by Smetana violinist Milan Skampa, and adds some incorporated interpretive features based on the composer’s approval of variants introduced in performance by the Moravian Quartet; the rival Bohemian Quartet, Skampa reports in his preface, was faithful to the scores’ letter but distorted their spirit. This is, to say the least, a highly controversial editorial approach, but Skampa
No matter how accurate your stereo system is, it's only as good as the records and tapes you play on it — and they leave much to be desired. The recording process does some terrible things to live music, and one of the worst is robbing it of dynamic range, the key element which gives music its impact.

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claims for the result the blessing, not only of his own quartet, but of the Janáček Quartet as well—although the latter's 1965 Supraphon recording (available here briefly on Crossroads) still uses the standard texts.

Though I have no way of assessing the authenticity of Skampa's work, I do find myself preferring the "traditional" Janáček Quartet performances on textual as well as interpretive grounds. The most apparent textual difference concerns temps; the revised metronome markings often result in more dizzying contrasts—e.g., the incredibly quick con moto that alternates with adagio in the first movement of No. 1. Yet it seems to me that the lesser severe contrasts may be more in accord with the goals of co-

hesion, terseness, and dignity in this taciturn and powerful music.

In performance terms, the Janáček is surer in intonation (Simetana first violinist Jiří Novák has occasional pitch problems) and firmer in rhythm. The Simetana tends to play in long, arching phrases; the Janáček's shorter, blunter units seem to me better attuned to the speech rhythms of the composer's unique idiom. The older recording still sounds fine, although it is more restrained than the new Supraphon (a coproduction with Nippon Columbia).

LULLY: Te Deum—See M.-A. Charpentier: Choral and Instrumental Works.


MOZART: Symphonies Nos. 35–41. English Chamber Orchestra, Jean-François Paillard, cond. RCA RED SEAL CRL 3-2931, $15.98 (three discs, automatic sequence).

Symphonies: No. 32, in G, K. 318 (DG only); No. 35, in D, K. 385 (Haffner); No. 36, in C, K. 425 (Linck); No. 37, in C, K. 444 (RCA only); No. 38, in D, K. 504 (Prague); No. 39, in E flat, K. 543; No. 40, in G minor, K. 550; No. 41, in C, K. 551 (Jupiter).

Mozart's last six symphonies are increasingly becoming inseparable companions on records, an unsatisfyingly restrictive arrangement for those of us who divide our allegiances among available versions by Szell, Walter, Giulini, Reiner, Böhm, and, yes, Karajan. That said, anyone opting for a boxed set would not go wrong with Karajan's new DG account. Although the performances do have drawbacks—perhaps even more of them than his Angel traversal of these great works ($36770, 36771, and 36772, October 1971)—they are ultimately incidental in the grand scheme of incredibly beautiful orchestral playing and the conductor's confidently authoritative approach.

The first thing one notices—not new, but still a marvel—is the control Karajan has over the Berlin Philharmonic, the ways in which the players seem practically to anticipate his ideas, the virtuosity, and the almost magical quality of the sound (which is well captured by the DG engineers, except for some surprisingly slushy moments in No. 39). Witness the opening of the Prague: The string lines hover overhead and don't settle to the ground until the Allegro sets in, when they make a very graceful but definite touchdown.

After all these years, one can still forgive Karajan's wanting to show off this orchestra. This is not chamber Mozart, though it is also not heavy. The singing melodies are always presented with delicacy (as in the first movement of the Hoffner). Articulation is beautifully defined, especially at the outset of the Jupiter, which gains an added sense of majesty through a proud use of legato. Mozart's final symphony is, all in all, Karajan's greatest achievement here—excellently paced, full of character, and never overloaded. The minuet has an appealing dance feeling, unlike the minuets of the other symphonies, which are surefooted but overly weighted.

In addition to the standard six final symphonies, Karajan offers the little Symphony No. 32, a welcome and delightful bonus that, as Stanley Sadie points out in DG's English-language notes, could be (and probably was) an opera overture. A sense of musical humor is not Karajan's strong point, but it almost creeps in here, the conductor clearly finds this music charming, which it must certainly be.

It would have been interesting to discuss big Mozart vs. little Mozart here, making cases for both approaches through the performances by the Berlin Philharmonic and the English Chamber Orchestra, but it would not be fair. Jean-François Paillard's

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Erato/RCA set is simply not in the same league as the DG box.

Much, perhaps most, of the blame rests with the Erato engineers, who captured a puffy, tubby sound with little clarity or variety of color. This means that the listener gets none of the feeling of wind band complementing with string ensemble, which can come through so charmingly in chamber-orchestra Mozart— and which, predictably, is not the forte of King Karajan of the strings.

But other weaknesses are Paullard's. He takes slow tempos— almost always slower than Karajan's, except in the occasional moment (Haydn) when he falls into rapid- stead of anticipating and preparing for them. Through the bad engineering, one can hear now and then that the English Chamber Orchestra players, though not virtuosos of the Berlin school, can produce attractively bright, even sweet sounds. But Paullard does not ask or inspire them to do so with any consistency. This is a good example of what happens when a conductor relaxes his way into Mozart; Paullard's treatment sound apathetic.

To fill up his three discs, Paullard has included what is called the "Symphony No. 47," of which Mozart of course wrote only the preliminary Adagio. The rest is by Michael Haydn. It's an interesting oddity, but RGA's failure to specify its authorship in the contents listings (the information is buried in Robert W. Gutman's notes) is going to leave some purchasers of these automatically-sequenced records wondering how Mozart came to write such an inconsequential piece of fluff between the Haffner and the Linz.

K. M.

Puccini: Turandot

Turandot

Liudmilla Kostyuk

Calaf

Mirella Freni

Ping

Nancy Argenta

Emperor Alfonso

Frank Cappelletti

Prince of Fo Tan

Donna

Pang

A Mandarin

Tuan

Mai Thoko de la Cathedrale, Opera du Rhin Chorus, Strasbourg Philharmonic Orchestra, Alain Lombard, cond (David Mutty, prod.)

Angel, SCLX 3857. $24 98 (three SU-en-coded discs, automatic sequence) Tape. **

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Comparisons

Callas, Serafin (EMI Italy) 3C 163 019/20/21

Borkh, Tebaldi, De Monacco, Errede

Lon, USA 1306

Nilsson, Tebaldi, Bjoerling, Lennardt

RCA, LSL 6149

Nightingale, Scotto, Corelli, M-Pradesi

Ang, SCL 367/1

Sutherland, Caballe, Pavarnot, Mehiri

Lon, USA 1310b

The first thing to note about this recording is the remarkably skilled, striking evidence of the turnabout in Angel disc quality. Textures have the vividness, color, and transparency characteristic of producer David Mutty's work; pressed to a choice, I might give Angel's more natural but no less detailed sound the edge over the more self-consciously spectacular Mehta/London recording.

Given the sheer physical impact of Turandot's percussion-oriented orchestration and massed vocal writing, the sound matters. So does the firm hand of conductor Alain Lombard, who at last shows signs of the authoritative control recalled from his Met appearances, after all those half-hearted Erato recordings. The Strasbourg Philharmonic is in fairly good shape, although it's not in the class of Mehta's London Philharmonic.

It's a pleasure to have Mirella Freni back, even for a visit in the lyric soprano repertory where she belongs. Particularly in Act I, this is the most beautiful singing I've heard from her in years, and her "Signore, lascerai" is answered by an equally lovely "Non piangere, Liu" from Jose Carreras. Giorgetti is of course one of those "lyric Ca-laf" spoilt by the phonograph, but for two acts, at least, he almost made me forget the greatest of them, Jussi Bjorling. For some reason, both Carreras and Freni are less good in Act III; both "Nessun dorma" and "Vivo d'oro" are distinctly disappointing after the Act I arias.

Paul Pliska does everything one can ask of a Turandot, and the supporting cast, although not helped by its French tinge, is, I hope, had I hoped for more than adequacy from Vincenzoiramario, but he falls into the amorphous middle rank of Pugs. The trio of minstrels as a whole is somewhat below average, but then, none of the recordings seems to me to make much of their big scene—i.e., given what, as in the Mehta/London recording.

And what of the Turandot? La Caille does certainly offer vocal presence, if not much in the way of discipline or refinement, this isn't her best or worst singing on records. For my taste, the role is so devoid of interest— and so loud, especially if you exclude (as I try my darndest to) the ghostly final duet with which Altano "completed" the opera—that only a singer of some special individuality can have much impact. We've heard two such Turandots on record: Maria Callas (EMI) for the diffusiveness of dramatic interest, and Birgit Nilsson (RGA and Molinari-Pradelli Angel) for the unique physical excitement of Birgit Nilsson.

I wouldn't want to be without either Callas or Nilsson, but then, whether I would part with either of Nilsson's Calafs—Bjoerling (RGA) and Franco Corelli (Angel). Unlike Bjorling and Carreras, Corelli was an authentic Calaf, and the recording captures a reasonable measure of the awesome intensity he generated in the theater—one of the few performances I've seen whose like I don't expect ever to encounter again. With this set already on the market, I'm assured of having Renata Tebaldi's Liu, but I'll have to be greedy and insist on the earlier London set as well, containing as it does some of Tebaldi's absolutely best singing, which is to say some of the most ravishing sounds I've heard emerge from a human throat. I'm glad to have that London set for other reasons too, among them Mario del Monaco's Calaf and Fernando Corena's Ping.

Of course for visceral excitement Mehta/London is a must. And the new set stays, for Freni, Carreras, and the sound. Any more questions?

K. F.

Rossini: Petite Messe solennelle, Mirella Freni, soprano, Lucia Valentini-Terrani, mezzo, Luciano Pavarotti, tenor, Ruggero Raimondi, bass; Vittorio Rosetta, harmonium. Leonore Maggiera, piano. La Scala Polyphonie Chorus, Runano Giandolfo, cond (Pasquale Soguio, prod). CDE, USA. NOVA CS 134. $15.96 (two discs, manual sequence, distributed by London Records)

After listening to this starry but tedious recording, I pinched myself. Could this be the same work that I have often found delightful, touching, and moving? So I put on the old Ricordi version (equally starry, with Renata Scotto, Fiorenza Cossotto, Alfredo Kraus, and Ivo Viminario as soloists)— the same notes, but an entirely different piece of music. Not even the unlistably Teutonic Euludic recording (recently issued in this country by RCA, ARL 2-2720) succeeded so well as this new recording at missing the musical point.

The first leitmotif is the plodding, shapeless introduction (the inauthentic single-piano introduction is used for the introduc- tion, the Huino, and the Linz). The whole piece, as a whole is somewhat below average, but then, none of the recordings seems to me to make much of their big scene—i.e., given what, as in the Mehta/London recording.

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K. F.

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To pass one comfortable view of what Casella did to Vivaldi, or Malipiero to Monteverdi, Giegling was a pro, responsible for, among other revisions, that of La Clemenza di Tito in the new critical edition of Mozart's works, so we may be assured that the score was not subjected to untoward manipulations. In fact, Giegling was too conservative with the cuts. All large baroque works, but especially operas, are in need of pruning, and Titomduino is particularly long, requiring ten sides in the album despite some cuts; it would have stood a little more docking.

Tito Manlio was written for a large orchestra—strings, harpsichord, recorders, flutes, oboes, bassoons, horns, trumpets, and timpani—and it is handled with Vivaldi's phenomenal sense for color. The accompaniments are beautifully worked out; the long ritornelles are meaty and usually carry on thematically after the voice enters.

Almost all the arias—and there are forty—of them are melodious and well groomed, many of them gems. They show great variety, from simple little ballads to stunning bravura pieces with a capricious instrument to enhance the excitement, and, surprising for the time, a number of them are through-composed or in binary form instead of the customary da capo. They have attractive, glossy melodies, and the longer ones are full of ideas and new turns. Lindo's buffo arias could come from any late-eighteenth-century opera buffa, though no one else, with the exception of Mozart, could have written their accompaniments.

Otherwise, Tito is entirely a baroque opera, with only one fine duet for ensemble pieces, and of course the brief final canto of the protagonists. There are about sixty long recitatives—the entire denouement is in recitative—and many short and rapid dialogues. Though Vivaldi writes them with inventive dramatic flair, a good many of these could be eliminated.

Though the music is thoroughly enjoyable, Tito Manlio also shows the many unsolved problems that make the revival of baroque opera so difficult; no attempt was made to minimize them. The cast is made up of three men and five women; the women dominate because three male characters—Tito's son Manlio, the "Latin knight" Lucio, and the military commander

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The Ricordi set was last available here as Everest S 441/2, if you come across a copy, grab it. Otherwise, you would do well to postpone acquaintance with Russini's endearing, heartfelt, and extremely well-crafted swan song until something better comes along.


This is the most recommendable of the recordings we've had of all three of Schumann's works for piano and orchestra. The performances are excellent, and London's sound—despite the generous amount of music—remains rich and imposing, with particularly attractive woodwinds giving lucidity to passages that could sound murky and monotonous.

Ashkenazy's accounts of the two shorter pieces are somewhat akin stylistically to Rudolf Serkin's exemplary Columbia ones in their kinesthetic and poetic aura. Everything sings, but there is a touch of impenetrable veiling in the background, a feeling of structure and classical reserve; as with Serkin, the two polarities exact equal pull and thereby keep the musical course in balance. In the concerto, which I imagine Ashkenazy has played more often, he is more affable than such classically oriented accounts as the Serkin/Ormandy, the Rubinstein/Galinni, and the two Lipatti recordings. Some may find his first movement in particular too facile and simpering, but it never exceeds good taste and I liked it better the third or fourth time around.

I was surprised to find Ashkenazy conducting from the piano in the G major Introduction and Allegro, which has many more surging tutsis and far more problems than its D minor companion piece. He handles his double assignment with aplomb and, as with his naturally expressive but never overstated account of Tchaikovsky's Fifth Symphony (London CS 7107), impresses as a potentially valuable maestro for Romantic music.

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Mining America's Gold: Vintage Musical Theater Albums

by Deena Rosenberg

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When the American musical theater was in its prime—during the first half of this century, and particularly between 1920 and 1945—the continuous outpouring of new songs and shows, as George Gershwin pointed out, made it impossible to evaluate their relative merits. Thus, perhaps, the recent flurry of vintage musical theater albums: It is just now that we have some perspective on that golden age when exceptional composers and lyricists—among them Irving Berlin, Jerome Kern, the Gershwins, Cole Porter, Richard Rodgers, Lorenz Hart, Oscar Hammerstein II, Harold Arlen, and E. Y. Harburg—found the popular stage both artistically challenging and commercially rewarding. Such perspective is not easily come by. Complete original-cast albums were not made before the '40s, so that many fine songs, and even entire scores, have been almost forgotten today, and historic stage performances, often done under the creators' supervision, are lost to us. Then, too, the records that were cut at the time are of variable quality and until recently were largely collectors' items. But now important sets of LPs from Book-of-the-Month Club Records, Mark 56 Records, the Smithsonian Institution, New World Records, and Music Masters, containing period material on discs of decent to excellent sonic quality, are partially filling the gap.

Another factor in the sudden wealth of options for show-tune collectors is that we are now fortunate to have several authorities who have uncovered the rare material that exists and know how best to package it—such people as Edward Jablonski (specializing in Gershwins, Arlen, and Berlin), Robert Kimball (Porter and Ebbie Blake), and Stanley Green and the Smithsonian's Martin Williams (the period in general). Some of the albums I consider here are archival reconstructions of important shows, made by piecing together period recordings of many kinds, including 78s, radio broadcasts, and piano rolls. Others are overviews of a composer's output, with original or period performers, and still others are collections of songs by a number of songwriters, all written over a particular period of time. Taken together, these diverse formats provide a kaleidoscopic and comprehensive picture of a particularly fecund musical era.

Of the material issued so far—more is to come—the most interesting musically and historically is that devoted to Irving Berlin and George Gershwin. Each of these men, drawing on traditions as dissimilar as Italian opera and ragtime, evolved a distinctive American idiom of his own, and each saw himself as a musical spokesman for the prevailing ethos.

Irving Berlin, who was ninety this past year (see Joshua Logan's birthday tribute in HF, May 1978), is probably the most prolific and successful popular songwriter of all time. His staggering array of memorable tunes and lyrics (he wrote both—the perfect collaboration, as Gershwin put it)—adds up to a cultural history in song of early twentieth-century America. Berlin's versatility and range, and his ability to speak for Everyman on innumerable subjects, are abundantly documented in a beautifully compiled retrospective collection of fifty-two numbers, "There's No Business like Show Business" (Book-of-the-Month Club Records), culled from thirty older records, many currently unavailable. This essentially chronological set begins with Berlin's first hit, "Alexander's Ragtime Band" (1911), sung by the Boswell Sisters with the Dorsey Brothers' Orchestra, in a cut made in 1934 and never before released on an American LP. The peppier rhythm of the tune and the lyric's praise for ragtime made a strong impression on the youthful Gershwin, among many others, and is characteristic of Berlin's lifelong passion for writing songs about music and dance—both literally, as in "I Love a Piano" and "Everybody Step" on this album, and figuratively, as in "A Pretty Girl is Like a Melody" and "The Song Is Ended."

Besides such well-known songs as "God Bless America," "Oh, How I Hate to Get Up in the Morning," and "Say It with Music," there are many rare ones in the BMC collection, like "Russian Lullaby" (1927) performed in a 1937 recording by Red Norvo and his orchestra. Original performances by such singers as Ethel Waters ("Heat Wave") and Ethel Merman ("Doin' What Comes Naturally") are interspersed with somewhat later, now classic interpretations by people like Bing Crosby ("How Deep Is The Ocean") and Eddie Cantor ("Mandy"). Another fine album of fifteen songs, "The Vintage Irving Berlin" (New World), consists entirely of cuts by those who first sang them, among them Berlin himself doing "Oh, How I Hate..." and Al Jolson singing "Let Me Sing and I'm Happy." This cut can also be heard on a Music Masters album of rarities, "Irving Berlin, 1900-1939." (Cantor is the star of a recent Smithsonian archival reconstruction, the 1928 Kahn-Donaldson score Whoopee, as well as an earlier album, the Ziegfeld Follies of 1917.)

In evaluating Gershwin's achievements, Deena Rosenberg, a musicologist and writer on music, is co-author of The Music Makers (Columbia University Press, January 1979) and is currently writing a book on the Gershwins for Random House.
melodies tell only part of the story, as several recent albums demonstrate. Besides songs—usually with lyrics by his gifted brother, Ira—Gershwin composed overtures, instrumental interludes, short ballads, and choral passages that helped unify his scores and yet gave them great musical variety.

We can get much of the flavor of Gershwin's shows from the Smithsonian's excellent reconstructions. Lady Be Good! (1924) and, especially, Krazy (1926) are already out. Fanny Face (1927) is due later this spring, and other cast albums are in the works. Much of the material on these discs was previously released on the Monmouth Evergreen label, but the Smithsonian collection is the first to assemble all the surviving original sources for a given musical on one record, with fine sound quality and extensive liner notes.

Lady Be Good! was the first big New York success for two dazzling sibling partnerships—the Gershwins and Fred and Adele Astaire. The songwriters wrote this score with the performers in mind. Ira Gershwin has recently remarked that both he and his brother particularly favored Astaire's straightforward phrasing and clear enunciation, which are evident on the album in the treatment of "Half-Of-It-Dearie Blues," "Fascinating Rhythm," "Hang on to Me," and "Swiss Miss." In the last three Astaire is joined by Adel, whose saucy flapper's voice complements his style nicely.

Similarly, the Gershwins tailored Oh, Kay! to the unique talents of Gertrude Lawrence, her "intelligently warm champ and piquant sparkling spontaneity, as one can pit it. The score ranged from the wistful "Someone to Watch over Me" to the slightly risque "Do Do Do," and the album has two versions apiece of these two songs (from discs cut in New York in 1926 and London in 1927), each interpretation with its own idiosyncratic charm.

Besides the original singing stars, the two already released show albums feature Phil Ohman and Victor Arden, a noted two-piano team of the time. Gershwin, a brilliant pianist, conceived of his songs first as miniatures for voice and piano and wrote out complete piano parts for them before he did orchestrations. To preserve the interplay between vocal and piano lines, the composer included Ohman and Arden, whose crisp touch and improvisatory style were much like his own, in the pit orchestras of his '20s musical comedies. "Arden & Ohman, 1925-33" (Music Masters) is the first LP issue of recordings by the team, with period vocalists, clarinetist, and Gershwin songs from eight shows on it. Perhaps the most interesting performer on the Smithsonian recordings is Gershwin himself. It is almost as electrifying to hear the composer on records as it apparently was in person; no one played his music better than he did. Early on, Gershwin became known as a master improviser, one who never played a song the same way twice. Though he published a songbook in 1932 with transcriptions of eighteen songs for solo piano in the style in which he improvised, he didn't notate or record most of his other musical excursions. The Smithsonian records are valuable in this regard because they include a number of unnotated Gershwin piano arrangements, for such songs as "So Am I," "Maybe," and "Someone to Watch over Me." These transcriptions can also be found on 'Gershwin Plays Gershwin,' RCA Victrola AVMT-1740, along with four numbers from the musical Tip-Toes.

The songs that Gershwin liked best to fool around with was "I Got Rhythm." In fact, in 1934 he wrote a full-scale work for piano and orchestra called "I Got Rhythm" Variations. Luckily for us, he played this piece on one of the twice-weekly radio shows he hosted for several months in the spring of 1934, and it is available on Mark 56 Records' priceless two-record set, "Gershwin by Gershwin." This album also includes two shorter improvisations on the song recorded at other times, and there is yet a third version of the tune on a companion album, "George Gershwin Conducts Excerpts from Porgy and Bess." Tragically, the acetates of other Gershwin broadcasts seem to have been destroyed.

Gershwin spent hours listening to ragtime and jazz virtuosos like Zaz Confrey, Eubie Blake, Fats Waller, Ohman and Arden, and many others, some less well known today, such as Les Copeland and Mike Bernard. Gershwin assimilated many compositional and performing tricks and figurings from these highly individual musicians. In his own words, he observed, "Bernard's habit of playing the melody in the left hand while he wove a filigree of counterpoint with the right," and Copeland's way of "blumping his left hand onto his right and causing it which he would slide into a regular chord—it made a rather interesting pulse in the bass, a sort of happy-go-lucky sforzando effect." His own lightning-fast left hand soon became legendary.

We can learn a lot about the origins of Gershwin's playing from recordings by pianists who influenced him, especially Blake and Waller. Like Gershwin, they were composer/pianists who conceived their songs as pieces for piano and voice, plus other instruments on occasion; unlike Gershwin, they played piano for their shows. There seem to be no recordings of Waller playing for singers from his shows; we hear him doing piano solos of two songs on the Smithsonian's archival reconstruction of the 1929 Sauternes of Hot Chocolates. (Other original performers on the disc include Louis Armstrong and Edith Wilson.) The way Waller used the piano in the theater is also apparent on the RCA original cast recording of his revue Ain't Misbehavin', largely based on original Waller material.

When he was not involved in theatrical ventures, Waller was usually playing and singing at nightclubs. The first comprehensive overview of Waller's songs and piano pieces is now available on BNC. Records, with the composer performing all forty-five numbers, sometimes alone, sometimes with other instrumentalists. The album, called "One Never Knows, Do One?: The Best of Fats Waller," amply demonstrates his influence on the popular piano playing of the day. Notable characteristics of his style were his stride left hand (bass notes alternating with middle register chords, brilliantly displayed in many pieces in this set, including "The Alligator Crawl" and "Smackin' Throes") and his dazzling use of chordal sequences (in the "Flat Blues," among others). On most of the tracks, including "Ain't Misbehavin'" and "Valentine Stump," Waller shows off his ability to keep the melody prominent in an improvisation.

As was the case with many Gershwin songs, Waller's often worked well either acted out and sung to a large audience or in a more intimate and informal club setting. "Your Feet's Too Big" is a case in point: On-stage in Ain't Misbehavin' it is an extrovert affair, a sassy but effective public airing of a grievance, when Waller sings it on the BNC album, the writer aspects of his music and lyrics come through, and the song becomes the humorous lament of someone who knows something about his life isn't quite right but can't quite put his finger on what. Gershman learned from Waller, and both men learned from Eubie Blake. Blake, a crackjack ragtime pianist, was also fascinated by new dance rhythms and incorporated them into his compositions and his playing style. Shuffle Along (1921), his landmark musical in collaboration with Noble Sissle, firmly established jazz dancing in the musical theater. Sissle and Blake played in the show, as they do on New World's careful reconstruction today. Blake is known mostly for his piano playing, but he also wrote some lovely tunes not only for Shuffle Along, but also for several other shows, including the all-but-forgotten Lew Leslie's Blackbirds of 1930. (Many of these, in modern interpretations, are on Warner's cast album of the current revival Eubie!) Four songs from Blackbirds...
with period performers are on Music Masters' "The Music of Broadway: 1930"; most notable are the haunting "Memories of You" and the endearing "You're Lucky to Me," both sung by the inimitable Ethel Waters.

This last album and two companion sets (for 1931 and 1932) point up how rich in talent the American musical theater once was. The material on the 1930 album alone, only a sampling of the season's offerings, is drawn from new shows written by Rodgers & Hart (Simple Simon, featuring Ruth Etting singing "Ten Cents a Dance"), Porter (The New Yorkers, with Jimmy Durante), Arlen ("Get Happy," with Ted Koehler, in the 9:15 Revue), and the Gershwins (Strike up the Band and Girls Crazy, starring Ginger Rogers and Merman, with the Red Nichols Orchestra, including Benny Goodman, Glenn Miller, and Gene Krupa, in the pit).

"Yip" Harburg, the great lyricist who is represented on the 1932 album by six songs with different composers (among them Jay Gorney's "Brother, Can You Spare a Dime?," sung by Bing Crosby), remembers that the '20s and '30s were wonderful years for American songwriters. "There was a real camaraderie amongst us. We were all in it together, so we would sing almost every night to play what we'd written that week and see how it went over with the gang." Harburg and many others speculate that the now-classic songs and musicals are enjoying a resurgence of popularity because they embody an optimism and zest for life that are in scant supply today. At eighth on his career, he'll be singing his own songs on a forthcoming Mark 56 album, "The Best of All Possible Words." He hopes to keep alive the spirit of that earlier time, when "an air of literate revelry prevailed. You wouldn't dare write an original tune or a clichéd lyric. This give and take added to the creative impulse. It was an incentive; it opened up new ideas, and made it necessary to keep working."

Book of the Month Club
There's No Business like Show Business (BMG 60 9256; 52 songs, four discs). This collection of Berlin songs includes "Cheek to Cheek," "Let's Face the Music and Dance," and "Change Partners" sung by Fred Astaire; among other performers are Bing Crosby, Ethel Waters, Ethel Merman, and Lee Wiley.

"One Never Knows, Do One?" The Best of Fats Waller (BMG 50 5255; 45 songs, four discs). Waller plays and sings such tunes as "Honeysuckle Rose," "Ain't Misbehavin'," "I'm Gonna Sit Right Down and Write Myself a Letter." These sets available as discs, cassettes, and 8-track tapes. For prices and ordering information, write Book of the Month Records, Camp Hill, Pa. 17012.

Smithsonian American Musical Theater Series

The Bandwagon (1931), by Arthur Schwartz and Howard Dietz (not yet released). Fred and Adele Astaire, others. Funny Face (1927), by George and Ira Gershwin (not yet released). Fred and Adele Astaire, others.

Discs available for $6.99, plus 90c handling, from Smithsonian Institution Customer Service, P.O. Box 10230, Des Moines, Iowa 50336.

Mark 56 Records
Gershwin by Gershwin (Mark 56 641; two discs; notes by Edward Jablonski). Gershwin plays Rhapsody in Blue (piano roll), the Second Rhapsody, "I Got Rhythm" Variations, parts of the Concerto in F, and several songs. George Gershwin Conducts Excerpts from Porgy and Bess (Mark 56 667; notes by Edward Jablonski). Gershwin plays six songs and conducts four numbers from the opera with the original cast.

Mark 56 Records, P.O. Box 1, Anaheim, Calif. 92805

New World Records
The Vintage Irving Berlin (NW 238; 15 songs; notes by George Oppenheimer). Included here are performances of "How Deep Is the Ocean" by Ethel Merman and "Let Me Sing and I'm Happy" by Al Jolson. Shuffle Along (1921), by Noble Sissle and Eubie Blake (NW 292; notes by Robert Kimball). Original cast members include Sissle, with Blake at the piano.

Discs are available in libraries and to individuals affiliated with educational institutions (order on institution letterhead) at $2.55 each, plus 50c handling, from New World Records, 3 E. 54th St., New York, N.Y. 10022.

Music Masters


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Close observers of the audio scene know that just beyond the foreground of mammoth mass-market multinationals and names that have been around so long as to be synonymous with quality audio lies a significant and promising multitude of companies that rarely receive the attention they merit. The smaller and specialized manufacturers (and importers) of audio equipment and accessories. Though they are often somewhat imprecisely referred to in the trade as the "esoteric" or "high-end" manufacturers, their products—and the potential purchasers of them—probably vary even more widely than those of the "majors." But such companies have a few things in common: limited production facilities and similarly limited or regional distribution, and budgets that seldom permit access through advertising to the broad national public reached by such journals as this one. With this in mind, we extended a blanket invitation to these companies to tell their stories in their own words for readers of this special section. What follows is selected (and in some cases slightly adapted) from the responses. The first installment of this directory appeared in January 1979, and the second in February. Subsequent installments are planned for forthcoming issues.

Acoustat Corp.
4020 N. 29th Ave.
Hollywood, Fl. 33020
Peter H. Dohm
305-920-9243

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Box 207
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Paula Sheehan
802-226-7216

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CIRCLE 84 ON PAGE 107
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Robert H. Tucker
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David Spiegel, president and chief engineer of AGI, has a degree in computer science and formed AGI after an association with Dynaco and Amprio, a manufacturer of broadcast electronics. Bob Tucker joined AGI as marketing director in 1977 after eighteen years directing Dynaco’s sales, advertising, marketing services, and public relations. They will soon announce the firm’s second product in the area of high-performance audio electronics.

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187 Streetsboro St.
Hudson, Ohio 44236
Ray Shab, President
216-653-9848

A new company with innovative ideas, New England Precision Products Co., manufacturers of Levitation Systems, makes an extensive line of adjustable speaker stands and component housing systems and accessories. Its speaker stands are adjustable in height and tilt. Models are available with and without casters for all bookshelf speaker sizes including “minimonitors.” Retail prices range from $40 to $65 a pair.

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Accessories include such items as a turntable light, a record file, and a drawer for disc-cleaning paraphernalia, extra cartridges, etc. The Iron Cloud is a turntable table that eliminates acoustical and mechanical feedback and absorbs lateral shocks as well. Rack prices start at $49.95.

Van Alstine Audio Systems, Inc.
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Al Clark, President
612-890-7606

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VA currently manufactures three products: the Model One preamplifier with its patented equalizing amp circuit, and the Model Two and Model Three stereo power amplifiers. We also are developing a unique phono system that will utilize a new straight-line tone arm.

To be continued
Decio—were originally castrato roles and are sung here by women.

Theoretically this is an impossible situation, but in staged performances we can at least tell the figures apart: in a recording all semblance of dramatic confrontation is erased as we listen to three mezzo-sopranos, somewhat uncertain who is singing unless we follow the libretto carefully. The rough Roman centurion is especially unconvincing; and Vivaldi must have been aware of this because he did not bother to characterize him at all: “he” always sings sweet music, even when transmitting a death sentence from the ruler to his son. This lack of characterization combined with fine music is present in many of the castrato parts in Handel’s operas.

Another obstacle to the popular acceptance of baroque opera is, of course, the libretto. The story of Tito Manlio is the usual fare of the drama per musica: various complicated amorous pairings, then the conflict of love, duty, and honor, capped by a new variant of the old Idomeneo/Abraham-and-Isaac legend of a father compelled to sacrifice his progeny. And of course there is the lieta fine, the happy ending, which nullifies the drama—a theatrical non sequitur still present in Gluck’s great “reform” opera Edip Euridice. Nevertheless, the libretto is not too bad as such concoctions go, and Vivaldi certainly did well with it. But if it is to be staged, it must be tightened and the castrato roles given to men. Without such changes, the enormous treasure of the baroque musical theater cannot again take root.

The instrumental cast is very good. Bass Giancarlo Luccardi in the title role has a little trouble with the low notes, but he is dignified, sings the arias commendably, does the recitatives well, and has good enunciation. Domenico Trimarchi, who plays the traditional basso buffo role of the servant, is first-class; he has a well-settled voice, good dramatic sense, and excellent diction. Tenor Claes H. Ahnsson (Geminio), though a Swede, has exemplary Italian enunciation and a fine voice he is not afraid to display. He passes his recitatives beautifully; when so presented, the recitative immediately assumes the real role it plays in the music drama.

Among the impersonators of men, Rossa Wagemann (Manlio) has a big mezzo voice but not many nuances, and she seems to be a little close to the microphone. She sings well in the arias, yet is a little huffy in the recitatives, the pitch becoming as a consequence somewhat indeterminate. However, she does her difficult aria (No. 48) and the dark duet scene at the beginning of the third act very well.

Margaret Marshall is superb as Lucio; her soprano carries without effort, and she can hold her own against the concertato trumpets with ease. Her voice has a fresh and utterly feminine timbre for a “Latin knight,” and this can match any Italian in declaiming the recitatives. Norma Lerer is also a complete artist, and though her luscious mezzo hardly suits the personality of the grim Roman centurion Decio, she sings “his” attractively light music as the score requires. She is particularly engaging in the Pergolesian aria No. 50.

Turning to the true female roles, Julia Hamari (Servilia) has a dark and powerful mezzo that she controls admirably and with many nuances, especially in the piano. In the fortes up high, she is at times strident, and she is not helped by the microphone placement. Alto Birgit Finnila (Vittoria) acquits herself well in some of her arias, notably in “Perché quel suono” and in the nice little slow aria, No. 57. But in the recitatives she seems at times uncomfortable and too subdued; on such occasions she is fairly overwhelmed by the rampaging harpsichord.

Vittorio Negri does a very creditable conducting job. There are a few miscalculations, as when the excellent little orchestra, having played a spunky ritornel, refuses to give up the foreground to the singer, but most of the time the playing is unexceptionable. Negri deserves praise for not allowing the new fashionable indulgence in extraneous vocal embellishments and frequent appoggiaturas, though he has not succeeded in imparting to most of his cast the Italian sense of recitative as musically animated speech, and he has permitted harpsichordist Jeffrey Tate too free a hand.

Tate is obviously a capable instrumentalist, but he cannot leave any note or pause alone; he turns the continuo harpsichord, whose role is to help and support, effectively but discreetly, into a chief protagonist. At that, many of the elaborate cadences and ornamentations are decidedly French—Tate knows his Couperin—and therefore not in a style that fits Vivaldi’s Italian music.

Tito Manlio is full of delectable music, and the recording is recommended. Yet the opera must be taken in installments, not only because of its length, but for surcease from the three-act harpsichord recital.

P.H.L.

ZEL ENKA: Orchestral Works. For a feature review, see page 83.

AUDIOPHILE RECORDS

The unconventional techniques employed in the recording and manufacture of the discs reviewed below result in prices and distribution patterns that set them apart from mass-market recordings.


Dvořák: Trio for Violin, Cello, and Piano, in E minor, Op. 90 (Dumky). Smet: Elegy for Pi-


One winner, two solid efforts, and two more exhibits for the proposed So What? Room at my Museum of Technological Marvels.

The password here is "digital": All but one of these records (the Mobile Fidelity Sound Lab disc, about which more in a moment) use a digital-recording system instead of conventional analog recording. Sound 80, a Minneapolis company, uses PCM (pulse code modulation, the latest version of its (i.e., Nippon Columbia's) PCM system; Telarc, Thomas Stockham's Soundstream system. The Denon and Telarc records were apparently made under otherwise normal studio conditions—i.e., with multiple takes subsequently assembled into a master tape, using the considering edit advantages of a digital tape recording.

The Sound 80 disc is something else again. In producer Tom Voegeli's words, "These performances are also completely spontaneous and unedited—played in 'real time' (including the pauses between movements) as though recorded directly onto the master disc. The result is a record which combines the integrity and spontaneity of performance implicit in direct-mastered recordings with the audio advantages of digital technology: 'Direct-to-Digital.'"

The Sound 80 disc is pressed in the U.S. by Wakefield: all the others are imported—the Denons and the MFSLs from Japan, the Telarc from Germany (Teldex). And all five of these discs are superior products from the standpoints of mastering and pressing.

But only one of these offerings seems to me to make its technology an essential component of its musical argument: the Sound 80 Copland/Ives disc. On the most obvious level, the repertory has been chosen ideally: Appalachian Spring and Three Places in New England are works in which instrumental texture is very nearly the defining factor of the musical substance; fastidious re-creation of the scores matters more than interpretive genius.

Appalachian Spring may be the single most beautiful piece of music I know—perhaps even more so in the original thirteen-instrument scoring than in Copland's later orchestral version, gorgeous as the latter is. My first exposure to the chamber scoring occurred at a session for the composer's Columbia recording (M 32738), and I will never forget the experience of hearing every instrumental line independently defined, as happened in the four-channel control-room setup. How incredibly beautiful each of those lines is!

Unfortunately, Columbia's finished product, although a lovely record, is considerably more muffled in texture. To a large extent, the St. Paul version left me with an abstract control-room experience, and Dennis Russell Davies' performance is perfectly solid. Not as good as Copland's, which has a special quality, nor for that matter is it as complete—what Davies plays is the suite, which of course does not include the bizarre and wonderful eight-minute "insert" heard before the theatrical presentation of the "Simple Gifts" tune in the Copland recording. I guess that makes both versions indispensible.

The case for Ives's chamber version of Three Places is less compelling; this is a reduction of the full-orchestra original, made for the eminently practical purpose of getting the performing movement's recordings. Imagination too is well served by the textural clarity produced by the combination of chamber scoring and Sound 80's analytical yet rich-toned recording.

The obvious thing to be said about the two new Denon discs is that their repertory makes more stringent demands and does not particularly benefit from X-ray clarity. Even both records feature distinguished performers attractively recorded. Kurt Sanderling's Tchaikovsky Fourth is musically and sonically solid, with predictably precise registration of textural detail (wind parts, for example), and it seems to be lacking in the give-and-take atmosphere of many "conventional" East German recordings, for example Sanderling's own Dresden Brahms symphonies (Eurodisc 85 782 XHK) and Berlin Sibelius orchestral works (Eurodisc 27 227 XKG)—both of which, incidentally, were produced by VEB Deutsche Schallplatten's Heinz Wegner, coproducer of the new Denon disc. Without that aura, it's hard to avoid noticing that the massive first movement of the Tchaikovsky sprawls somewhat, and that the performance as a whole is a bit on the heavy side. The finale, however, is quite satisfying, and has almost the opposite problem with the Suk Trio disc, where instrumental clarity has been stressed to the point of aggressiveness. All three of these distinguished instrumentalists are enormously, even overwhelmingly "present" in sonic terms, but I miss the personal and ensemble presence (here it is impossible to separate music and engineering considerations) characteristic of every other Suk Trio record I've heard.

That reservation aside, the Suk performance of Dvořák's Dumky Trio is as bold and soulful as one would expect. I haven't heard the two previous installments in this ongoing cycle of Dvořák's piano trios, but this is clearly an important series—and I think it's safe to venture that Denon's immaculate pressing is superior to what we can expect from the eventual Supraphon edition of this recording (another Japanese-Eastern European coproduction). Sufficiently superior to justify the price?
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You'll have to decide. The Suk Elegy, by the way, is a lovely filler.

I can't complain about the sonic fidelity of the Telarc and MFSL discs; I see no reason to doubt that Atlanta Symphony and Los Angeles Philharmonic performances of this sound music very much like what we hear here. The question is: Who wants to pay good money (very good money) to hear it? The Telarc recording has an uncommonly wide dynamic range (too wide for my home listening, but undoubtedly still not wide enough for other tastes) plus the expected assortment of inner detail. It doesn't, for instance, include the kind of recording that Robert Fiedel greeted so unenthusiastically in his June 1978 review of the original London issue. MFSL has licensed it—and a number of pop titles from various sources—for limited release in a carefully mastered (including half-speed cutting) and pressed audiophile edition. And the quality of the mastering and pressing is indeed first-rate.

But heavens, what a noise! The Fiedel complaint about the quality of London's (domestic) pressing may be alleviated, but the result only highlights his complaints about the slack performance and ugly playing.

Kenneth Frye

TOMMY TEDESCO: Autumn. [Albert Marx and Dennis Smith, prod.] TREND TR 514, $15.98 (distributed by Discovery Records).

For many years, Tommy Tedesco has been one of Los Angeles' top studio guitarists. On "Autumn," one of his few solo LPs as a declared jazz artist, it shows. Though his tone, fingering, and use of dynamics are impressive, more than half the record is woefully short on substantial improvisation—the factor that separates studio followers from jazz leaders.

This album, split electric (Side 1) and acoustic (Side 2) tracks, "Autumn" opens with Herbie Hancock's classic "Dolphin Dance," a case in point. Impeccably stating the beautiful theme, Tedesco is the technician supreme, but his improvising consists of clusters of notes repeated rhythmically. He passes up implicit melodic possibilities a top innovator would favour. On the up-tempo "The Song Is You," this problem grows worse.

The acoustic set is not much better than the electric. The by-now-stale "Manha de Carnaval" is further burdened by a corny, overplayed rhythm arrangement from drummer Frank Sverdlov. And, though brief original—"Tedesco's own "Suelo Espanol," Severtino's "Autumn," and Run Corsaro's "Take a Trip"—the need for improvisation, their melodies are insubstantial.

Still, a few tracks make the grade. Side 1 has an interesting new arrangement of "Bugs' Groove," on which the melody is played in fourths and nicely doubled by second guitarist Jon Kurnick, providing a base for Tedesco's relaxed and soulful soloing. On his "What's His Name," he unfolds the theme, full of rich changes, in a crystalline style.

But the sound of the album is its chief virtue. This is a record where the direct-to-disc technique makes a breathtaking difference.

The guitar sounds almost realer than real, and Tedesco is a superb technician. Even when you're listening from some distance, at the stereo center of your setup it sounds like the band is in bed with you. Of course, the same incredible fidelity that makes the guitar so precise and crisp also catches the rhythm section in moments of rag, and the cymbals are corded a bit too brightly for my taste too.
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CIRCLE 57 ON PAGE 107
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Melissa Manchester: No Milk-Toast Here
by Don Heckman

"I used to feel," says Melissa Manchester, "that when you came to L.A., the moment you got off the plane, you became instantly stupid." Tough talk from a dyed-in-the-wool New Yorker who never really thought she'd be able to swap the energy and intensity of the Apple for the laidback indolence of the Hollywood Hills. Yet, here she sits, curled up like a warm, dark, exotic kitten, nestled comfortably in a huge couch ("Don't worry about putting your feet up, it belongs to Abbey Rents"), gazing wistfully through the floor-to-ceiling window behind her as we talk about her metamorphosing career.

"But I changed," she continues. "Most New Yorkers do when they come out here. They have to change. They have to find an accommodation, or else they just couldn't stay here. For me it was matter of getting into my own thing and continuing to do it my own way. That's why I write at night. When you really get into the night, it's the same everywhere. . . . It's the atmosphere I need to make music."
Well, I for one have never found the slow creative metabolism of Southern California all that easy to bypass, but who's to argue with success? The fact of the matter is that most of Manchester's albums—which surely have at least as much New York City feeling to them as anything by, say, Billy Joel or Barry Manilow—were recorded in L.A. studios. So she must, as she says, be able to create that atmosphere wherever she goes.

With her current album, "Don't Cry Out Loud," she is making even bigger changes: She has a new producer, Leon Ware, and a new attitude about the kind of songs she wants to do. It has been more than three years since her double gold records for the hit single *Midnight Blue* and its album "Melissa." She has been a steady performer since, with LP sales in the comfortable 300,000-plus range and a consistent ability to sell out halls the size of New York's Carnegie. As a songwriter, her collaboration with Kenny Loggins on *Whenever I Call You Friend* produced a No. 1 single last year that helped launch Loggins' solo career.

Despite her consistency, however, the feeling around the business has been that she needs another major hit of her own to stay in the public's eye. Whether or not the new direction of this album—a strong move toward disco—reflects a calculated effort to produce that big hit is not something she likes to discuss in specific terms.

"Songs are a very important part of my life," she says. "I don't treat them casually—not any of them—and it can be hard, very hard, seeing them treated like commercial product, like so much furniture for sale." Not an unusual attitude: Although she is certainly less focused on the problem than some performers who come to mind, Manchester is neither the first nor the last singer/songwriter to grouse about the perils of trying to function "creatively" in a money-oriented business. She prefers to view her recent musical changes as evolutionary and natural. "I don't know how else to put it other than to say that it was time for a change. I really wanted to get into a different groove, and I knew the only way I was going to do it was by taking drastic steps. So I disbanded my original band and started looking around for a new producer.

"I allowed myself a lot of time. I am not what you would call the most trusting person in the world, and I really like to know where a person is coming from before I take a chance with him. And sometimes I won't even take a chance then. Anyhow, I met a lot of producers—very respected, very successful, the kind of people you'd described as high achievers, as successful businessmen. And very few of them showed me their guts. I just couldn't tell where they were coming from. Sure, I guess when they're working in the studio, they show guts all over the place, but I didn't want to take a chance on that. The only thing I knew was that, sitting in my living room listening to cassettes of some of the songs I wanted to record, they weren't showing me any guts at all. It was more like—let's not take any chances until we see where this is going to go."

She pauses for a moment and stares into space. I follow her gaze toward a wall full of portraits. One is an illustration of an opera scene. "It's *Tosca*—my favorite. That's the kind of music I grew up hearing." The daughter of a classical bassoonist with the Metropolitan Opera orchestra, a graduate of Manhattan's High School of Performing Arts, and a professional singer since the age of fifteen (her credits range from backup work for Bette Midler to the National Lampoon Show), Manchester has probably had a more extensive musical background than most pop performers. She smiles. "You wonder why it's hard for me to accept the record business on its own terms?"

She speaks in a kind of semi-whisper that promises intimacy but never quite delivers. I urge her to tell me about the eventual selection of r&b maven Leon Ware as the producer for "Don't Cry Out Loud."

For the first time she laughs deeply and fully. "Oh, Leon! That was really a trip. I met him during one of the rainstorms early this year. I had to pick him up because his car had broken down. On the way back he played some of the demos he had written. It was wonderful. But, you know, it was a little weird. I'm not
used to having producers come to me with songs. I'm a writer. I come to you with songs. So we came back to the house, and I played them two cassettes—twenty-five songs—for him. Some of them were mine, some from outside sources, but they were all stuff I really liked. Well, he's getting more hysterical by the minute, laughing more and more each time I played another one of these demos that I had made. By the end of it, I had to pick him up off the floor. I said, 'What's the matter?' And he said, 'Lady, what exactly do you want me to do for you? You've already got the album right there.'"

It sounds wonderful, but, I suggest, there must have been more to it than that. She smiles again. "Of course. Leon did an enormous amount. He assembled an incredible group of musicians—a dream team."

I interrupt her. There were many world-class musicians on her earlier dates as well. "Oh sure," she replies. "But, it's funny, you know, with guys like Steve Gadd and Don Grondin, guys who worked on earlier records—I know they're all-stars, but maybe I'm too close to them to retain the sense of awe, maybe it's because we all camp up together. With the guys Leon found, people like Lee Ritenour—I mean those are people whose records I buy!"

And what about the material that Ware had said was good enough to be released as is? The record reveals considerable subsequent production and not all of it, from my point of view, is particularly appropriate.

She shrugs. "Studios can be terrible places. They're wonderful workshops—maybe too wonderful. You know what happens. You tell yourself you'd like to get away from using so many strings. But then you finally break down and say, 'Oh let's just try it.' No matter how much you want to keep it simple, when you're there and the music is unfolding and there's a hankering for a string section, how can you argue with it?"

Does that imply, I wonder, that she lets her producers make the final decisions?

She bristles for a moment. "Never. I'm there all the time. Most of the time I have the final say on mixes. Sometimes I don't ask for the final say. Look, I really love collaboration—and that's the important element here. There's nothing heavy going on, nobody's trying to grab control. It's just an interaction. When I'm with the right producer—like Leon—I love the feedback, the springboard you get from the right kind of connection with someone. Working with somebody who's into something musically is one of the most exciting things I can do. So who's to say where the final decisions really are made? In a really good collaborative effort, you don't know where your ideas leave off and the other person's ideas begin."

Manchester has worked with a number of people over the past years—lyricists and songwriters as well as producers. Those relationships, too, are complex ones that have resulted in a body of work that is perhaps too little appreciated. Some of the best songs have been done with Carole Bayer Sager. "With Carole," says Manchester, "it's a total collaborative effort. I literally work on the music as she does the lyrics. I love that—I love it! It's the perfect way to work. You can still play with the song, you can still change the words, still change the music. Sure, there are other ways of working, and I've done them all, from writing the music first to simply setting somebody's words to music. But with Carole it's really special, it just evolves from the two of us working together."

"Songs are very important. . . . It can be hard seeing them treated like so much furniture for sale."

She speaks more rapidly now, warming to the subject: "I write the same way with Leon. When we worked on the album, we mostly did it at the piano. He'd sit down at the keyboard and start to run through something, but then I'd get an idea and run over and kind of nudge him out of the way. He used to call it 'musical hands.' He'd play something else and then say, 'Okay, pick it up from there,' and then he'd slide off the bench, and I'd just keep on playing. Spontaneity! That's what it is—like never knowing exactly how something's going to come down.

We talk more about her album, about her difficulty with the record business attitude that singles are what make the cash registers ring. "I'm much more involved with making albums than I am with making singles," she says. "Maybe that's been part of my problem. To me, an album is a wonderful way to present ten points of view—and they should be complementary points of view, attitudes that balance each other. One song—a single—does not present a point of view, not to me. So when people tell me that I should make an album of accessible singles—well."

Her voice trailed off, and for a moment her odd mix of New York mannerisms and California dreaminess was pushed aside by an almost childlike plea for understanding. "Mostly I'm just grateful to be able to finish some songs. Sometimes I wonder if anybody out there—in the audience or at the record companies—really understands that they're not always that easy to finish." Within a moment the composure returned and we finished our conversation, talking about the kind of stuff all New Yorkers talk about in California, reassuring each other that there really was a lot of energy in the air and that the sunshine felt good and that, what the hell, the recording industry was all out there anyhow. "Don't Cry Out Loud" is making slow but steady progress up the charts at the moment. So maybe—just maybe—the new tack she has taken will pay off.
Brad Miller, Gary Giorgi, and Stan Ricker aren't conspicuously hip characters: no neck chains, coke spoons, fast German cars, or up-to-the-minute argot for these three. Their idea of music-business gossip likely would put a promotion man or a groupie to sleep, since it revolves around matrices, baths, transients, and other less-than-sexy terms. Yet this unlikely trio is making some of the most stunning pop and rock albums currently available in this country.

More accurately, they remake previously released albums by starting from the original two-track master tape. Miller (best known as the producer of the Mystic Moods Orchestra) and Giorgi, both fervent audiophiles, formed Mobile Fidelity Sound Lab a few years back as an outlet for high-end Mystic Moods re-releases. They enlisted JVC Cutting Center mastering engineer Stan Ricker (see the interview elsewhere in this issue) to cut fresh disc masters of three of the Orchestra's LPs using half-speed, rather than real-time, techniques (Ricker explains in that interview). Calling the series the Original Master Recording line, Mobile Fidelity then approached major labels for special licensing agreements that would enable them to do the same with contemporary pop, jazz, rock, and light-classical hits.

The premise may have seemed suicidal to practical label execs concerned with maximizing volume and minimizing production time and expense. Miller and Giorgi required many months to prepare the items for market, beginning with the mastering process and continuing through to disc manufacture at JVC in Japan. And what with transoceanic shipping, arduous quality control, and a limit on pressings (usually 50,000 per license), they asked that the finished LPs list at $15.98. Unlike their mass market pop peers, they accepted no dealer returns. (True defectives can be returned direct from the purchaser to Mobile Fidelity.) And while they were seeking the very best—and in most instances, very successful—acts available, distribution initially was limited to selected audio salons, not record stores.

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Miller and Giorgi often evince impatience with the recording industry's usual indifference to the audiophile community. And seven familiar pop and jazz albums they have released during Original Master's first year prove that their quality-first premise can work: At a time when dissatisfaction with price hikes and pressing quality seems on the rise among consumers, critics, and retailers alike, Mobile Fidelity has persuaded artists like Steely Dan, George Benson, Fleetwood Mac, Al Stewart, the Crusaders, and Supertramp to let them double their discs' list price (though that also marks a corresponding royalty hike to the artists).

Mobile Fidelity's technical approach is at once state-of-the-art and reassuringly old-fashioned. Pressing quality on the production line is, of course, a major concern. (After pressing in Japan, the finished discs are slipped into plastic and rice-paper antistatic sleeves before being shipped to the states for collation with the...
jackets.) But Miller, Giorgi, and Ricker all stress mastering as being just as, if not more, crucial. Half-speed (16½ rpm) as opposed to real-time (33⅓) mastering techniques were the industry standard during stereo’s early years but were later phased out in favor of the faster approach. The unveiling of discrete discs early in this decade led JVC back to the half-speed approach because of its greater precision in cutting the complex groove surfaces of discrete discs. After four-channel’s commercial failure, the half-speed technique was again retired until the Original Master project.

All this care will not be wasted on high-end audiophiles whose stereo setups are worth as much as their cars. But what about pop and rock fans whose budgets don’t allow for elaborate playback electronics? Although there’s a clear correlation between the quality of one’s system and the degree of audible improvement, good cars and a modest system offer some surprising insights. I’ve listened to both the Original Master releases and their original counterparts on systems ranging from my own modest home component setup to the room where they were mastered by Ricker. The top end was represented by such pedigreed gear as JVC’s customized electronics (along with various audiophile units sampled in conjunction with it), a Denon turntable, an Ortofon moving-coil pickup, and massive UREI 604 E “Time Align” speakers. Closer to the mean, I auditioned the discs using Yamaha and Pioneer receivers, Technics and Dual turntables, several cartridges, and the JBL and Rogers Sound Lab speaker lines.

While the better systems easily substantiated Mobile Fidelity’s basic assertions—dramatically reduced surface noise, wide dynamic range, added depth and separation within the stereo image, and greater detail—I found the most telling index to their validity was my home system. It has been assembled over a number of years and kept in relatively good trim, although specs likely would fall below many mid-priced designs of the past few years. It consists of a Sony 6050 receiver, KLH 6 speakers, and a Pioneer direct-drive turntable with a Shure V-15 Type III cartridge. The rig takes full advantage of a relatively live listening environment—a stucco living room with a fifteen-foot arched ceiling.

Even on this comparatively modest system, the gains are evident, ranging from just audible to startlingly so. Supertramp’s “Crime of the Century,” when first released in the mid-’70s, was among the better conventionally pressed rock albums around. But in

its new incarnation the depth and solidity of the bass are clearly improved, the gain in dynamic headroom (particularly apparent with this band, which interjects sudden, staccato instrumental accents into quieter passages) is palpable, and the greater clarity of the higher frequencies—especially on percussion—adds presence without altering the overall accuracy of the sonic image.

Steely Dan's "Katy Lied" is even more impressive, regaining much of the presence reportedly lost due to a breakdown in the noise-reduction system during the album’s original mixing and mastering. The Dan and their producer, Gary Katz, had come to refer to "Katy Lied" as their most frustrating failure, an LP originally designed to be "real hi-fi" but damaged nearly to the point of shelving. Their fans may have viewed such gripes as melodramatic, but the new version brings out the detail and presence in Donald Fagen's lead vocals, the richness of Phil Woods's sax solo, and the rippling percussion effects on Your Gold.

Mobile Fidelity's technical approach is at once state-of-the-art and reassuringly old-fashioned.

Teeth II. It's a production finish much closer to that of last year's "Aja." The reduction in noise, along with improved separation, actually changes the balance by throwing the accompanists into higher relief against some backing vocal arrangements—a change the artists apparently liked since they approved the new master.

Depending on your familiarity with the original versions, similar revelations will likely occur throughout the series, from the ensemble balance gained on John Klemmer's "Touch" to the luminous delicacy of the guitar harmonics on "Fleetwood Mac." Actual sound levels on several are somewhat lower than on the conventional versions, but once you've adjusted the volume, the improvement should be evident. Yet another dividend on medium-powered systems will be the records' performance at higher volumes, since the high-frequency distortion that leads to brittle harshness is reduced.

Less obvious, but more significant in the long run, these pressings have lived up to Mobile Fidelity's claims of longer life. In some cases they even improve slightly after a few plays: My MF pressing of "Katy Lied," which I've played incessantly over the past six months, sounds rewarer and more vivid than the original did on the first spin.

Although the degree of improvement varies somewhat with the dynamic range of the material, Miller and Giorgi have focused on excellent original productions throughout, so even rowdy, live rock benefits. A preview of a forthcoming Original Master version of Little Feat's "Waiting for Columbus" made the point within minutes, starting with the opening backstage chatter preceding the first song and culminating in Kenny Gradney's rock-bottom low bass notes and crisper percussion sound.

Since most dealers currently carrying these records are selling them at or near their full list, the consumer will clearly pay dearly—nearly triple the asking price in the local mass-volume record and tape chain. But if any of these performances are favorites and you've been bemoaning the quality of the original pressings, a trial listening session is strongly recommended.
The Gizmotron. The Gizmotron, the first device to provide guitarists with genuine infinite sustain since feedback was invented, is an electromechanical bowing device that is literally operated by the touch of a finger. It mounts over the bridge of an electric guitar and incorporates six rotary polyurethane plectra, one for each string. Different-sized teeth, matching the string thicknesses, are used for each plectrum so that the timbre of the instrument is kept uniform throughout. The plectra are connected to rubber wheels that, when the keys are depressed, make contact with a DC-powered, constant-speed drive shaft that rotates the rubber wheel and its associated plectrum. Depressing the key also applies the plectrum to its string, which will sound as long as the key is held. All six strings may be played simultaneously, or in any combination. This lets the player “bow” entire chords. With a little practice, one could bow the higher strings while thumb-picking the lower ones, or vice versa.

While the Gizmotron can make very unusual sounds, it can make music only if the guitarist is capable. The inventors were quick to point out that, though an array of flangers, delays, and wah-wah pedals may hide a musician’s inadequacy, this device will only make it more glaring. But to those who can play to begin with, it offers an expanded range of timbres and tonal possibilities.

When it’s not needed or a string must be changed, the Gizmotron can be removed with one twist of a knob mounted on its housing. For the ten most popular guitars, special replacement bridges having an extension piece to accommodate the mounting screw of the Gizmotron will be made available. Less popular models can be fitted with a universal mounting plate: A few holes must be drilled in the guitar to accommodate the plate, but the Gizmotron is still removable with one turn of a screw. The plectra, which the manufacturer says will do no damage to guitar strings, may need replacement after long use, but new ones are easy to acquire and install. Though no lubrication is required, occasional cleaning with alcohol is a good idea.

Listening to the inventor’s demonstration of a prototype, we noticed that motor noise entered the guitar’s lower pickup and came through the amplifier. Thus, we were assured, will be corrected in production models (on sale by now), which will have their motors shielded with Mumetal, an alloy used to reduce hum and motor noise. When I commented that the sound seemed a bit harsh, the inventors explained that the plectra of the prototype were of delrin, a harder plastic than the polyurethane used in production models.

The Gizmotron seems like a useful addition for any electric guitarist. It expands the sonic possibilities of the instrument to include cello- and viola-like sounds as well as “electric fiddle.” With proper equalization, many variations on these sounds become possible. Best of all, at least for me, is that the idea behind the Gizmotron is very simple. At a time when digital technology is receiving so much attention, it’s nice to see innovation that is basic and mechanical.

The Gizmotron comes with an adapter for standard AC house current, costs $250, and is marketed by Musitronics. It may be heard on the Mercury album entitled “L.” with Lol Creme and Kevin Godley, its inventors.

CIRCLE 121 ON READER-SERVICE CARD

FRED MILLER

March 1979
The Doobie Brothers Still Got Rhythm
by Ken Emerson

The Doobie Brothers: Minute by Minute. Ted Templeman, producer. Warner Bros. BSK 3193, $7.98. Tape: MS 3193, M 8 3193, $7.98.

Utterly anonymous yet instantly identifiable, the Doobie Brothers are one of the more enigmatic groups in popular music. I've never met a soul who professes to be a fan of theirs, much less one who knows the names of more than two of them, yet their albums almost invariably go platinum. They hobnob with Dinah Shore, and they've even sponsored their own golf tournament. During the eight years they've been making records, they've undergone more personnel changes than a faltering franchise in the World Hockey League, but their sound has remained immediately recognizable. And although they've written scarcely a single memorable melody and have never coined a catchy phrase, their music leaves an indelible impression.

The secret lies in the grooves—the groove that the Doobies pursue with the fanatical determination with which surfers used to seek the Perfect Wave. At once single- and simplen-minded, the Brothers revere rhythm above all else, ruthlessly subordinating melody, lyrics, and even lead vocals. Since very few of God's chilluns have actually got rhythm, they are among a handful of predominantly white bands in America that are consistently rhythmically compelling (Little Feat is another). At the same time they're among the least interesting in every other department.

Still, rhythm goes a long way, as their new album, "Minute by Minute," amply demonstrates. Don't Stop to Watch the Wheels, for instance, begins with a dramatically tumbling-down guitar riff and quickly superimposes a second rhythm, a regular boogie gait that at first seems quite irreconcilable. But almost immediately the meters magically mesh, condensing into fewer than twenty seconds the phase-in, phase-out drama of a lengthy composition by Steve Reich. "Minute by Minute" is full of such fun and games. How Do the Fools Survive? juxtaposes the leisurely pace of Michael McDonald's lead vocal with a rhythm section that bustles along at twice the speed. The title track is an out-and-out tease, revving up and then braking to almost a crawl before deciding on a loping tempo somewhere between the two. Again, all this occurs within thirty seconds.

Eventually the majority of the songs settle into a chugging samba reminiscent of Steely Dan, with whom McDonald as well as one of the Doobies' guitarists, Jeff "Skunk" Baxter, used to play. Adding another echo, guitarist Patrick Simmons sings uncannily like Donald Fagen on several tracks. Identity remains a problem for the band, not only because it's so frequently imitative, but also because McDonald and Simmons often seem to be heading in opposite directions.

McDonald has abandoned the thumping bent of his earlier songs (It Keeps You Runnin', Takin' It to the Streets) for a feathery funk in the no-man's-land between jazz and pop. His airy keyboard overays are lovely, but they leave little room for the guitarist to maneuver in, and his hazy vocals cannot carry a song.

Simmons, on the other hand, is eclectic and seems somewhat restless with the mellow mood into which the band has fallen since McDonald has become the pre-eminent Doobie. There's still a bit of the rocker in Simmons—although it has little opportunity to express itself—and...
also a smidgen of the bluegrass fan. In fact, his rollicking country-ish instrumental, Steamer Lane Breakdown, is the most aggressive cut on “Minute by Minute.” For once the guitar snaps and the drums crinkle instead of being muffled in the mix. Simmons’ most ingenious song, however, is Sweet Feelin’, which melds James Taylor’s acoustic sonorities with, once again, the Dan’s rhythms.

That one of the great boogie bands of the early ’70s is now offering the mellow sound should come as no surprise—that’s what radio stations are programming these days, and the Doobies have always aimed for airplay. “The Captain and Me,” which they released in 1973, was and remains a great dance record. In 1979 dance means disco, but the Doobies still seem to prefer marijuana (a photograph of a roach adorns the inner sleeve of “Minute by Minute”) to the disco drug cocaine, so they’re back rather than hopped-up.

If “Minute by Minute” passes by you in something of a blur, listen a little more closely. Yes, that drum beat is right on and matched just so by the bass. Hear the guitars lock in and the piano’s syncopated plunk? The Doobies have found the groove once again, and though it may not be the perfect wave, it sure is a pleasant ripple.


If you think I’m going to take the usual cheap shots at Joe “The poor man’s Marvin Hamlish” Brooks, you’re nearly wrong. (That was only one.) This album is a good idea, finely realized, and very nearly gives lie to rumors that Brooks’s ego far surpasses his talent. In fact, his ego only slightly surpasses his talent. (Well, two.) He can write a hook-laden romantic ballad with the best, and his arrangements are solid, if not especially imaginative. He knows his limitations as a singer and has plenty of experience casting voices, since he produced and wrote commercials long before You Light Up My Life hit the charts.

The songs on “The Joe Brooks Group” include Life and California, Debby Boone’s less-successful follow-up; eight new (to these ears, at least) originals; plus a surprise bonus at the end of Side 2. The arrangements provide support without getting in the way, and the musicians—all New York session types—are typically fine. The voices include several familiar-sounding commercial and studio-group singers. Chief among them are Ron Dante—who sang lead on records by the Archies and the Cuff-Links before settling down to warbling jingles and coproducing Barry Manilow’s LPs—and Jerry Keller, who had a hit record (Here Comes Summer) under his own name ages ago, and who Likewise is heard every time you turn on your TV. Both singers soar with the material, distracting from the fact that much of it sounds the same.

As for the album-end lagniappe, it’s a version of the Four Seasons’ Rag Doll, with a lovely sounding vocal chorus supporting Brooks’s rather foggy lead. There are pictures of him on the front and back covers of the album, with considerably less attention given the singers who do such a star-quality job. Brooks and Keller should do an album together immediately and then rescue another talented Madison Avenue singer/writer, the elusive Jake Holmes.


Writing this in the last days of 1978, I am almost relieved that Elvis Costello’s “Armed Forces” won’t reach radio stations and record stores before January: With his “This Year’s Model” still ringing in so many ears, the prospect of a forward leap as audacious as this one is positively jarring. Unlike his superstar elders who take years to ready each new platinum contender, Costello has played hard and fast, vaulting within a few months from a trash, riveting debut (“My Aim Is True”) to the razor-sharp distillation of its style on “This Year’s Model.”

“Armed Forces” arrives less than a year and a half after his first, yet it embodies a dramatic shift in recording for the songwriter and his potent band, the Attractions. Much of the first two albums’ immediacy stemmed from producer Nick Lowe’s skill at cutting live, with Costello’s vocals and the band tracks cut simultaneously and overdubs restricted to vocal backing and instrumental repairs. In contrast to those eight-track wonders, “Armed Forces” was cut over a month, not a week, of sessions, with Lowe applying his expertise as a more theatrical, often mimetic pop master.

Lead and backup vocals are overdubbed, multiplied, and panned across the mix, yet the subtlety and variety of the recording is by no means limited to studio technique. It may well be taken by more literal New Wavers as a suspect nod toward commercial strategies, yet Costello has never really eschewed pop heartlands, he’s celebrated them. In that sense, this new palette fits perfectly into his evolution.

The Attractions emerge as a far more varied ensemble than one might have expected. As a writer, Costello flashes a new melodic sophistication, implied in the earlier material but now fleshed out by a lusher, more eclectic instrumental approach. Without draining the tracks of their past spare, staccato rhythm arrangements, the keyboard/guitar symmetry of the Attractions is expanded by keyboardist Steve Naive’s newly elegant fugal excursions and the LP’s wider range of vocals. Costello proves equally adventurous on guitar, partly a result of the increased harmonic invention of the songs themselves.

If “Armed Forces” represents his most ambitious music, its lyrics show continued growth as well, with Costello’s barbed language now fused seamlessly with the nervous rhythms and sudden rhapsodic releases of his songs. Technically, he generates a constant tension.
between the often lively, major-key momentum of the playing and the harrowing world his narrators inhabit. Like their predecessors, these songs are violent, intimate encounters, yet the sexual hysteria, psychotic alienation, and homicidal rages that propel Costello's characters are now psychic motifs used as both cause and effect in a collapsing world. He is concerned more than ever with the political backdrop of a decaying Europe he so acidly creates. Indeed, the alleged original title for the LP was "Emotional Fascism." It is one of the few revisions I might question, for it exactly describes the central theme of the record.

N.S.

Crazy Horse: Crazy Moon. Richard Heenan, Kirby Johnson, Neil Young. Tim Mulligan, David Briggs, producers. RCA AFL 1-3054, $7.98. Tape: • AFS 1-3054, • AFS5 1-3054, • 57.98.

The boys tell interviewers that they don't want to talk about their mentor, Neil Young. So how come he coproduced and plays on five of the cuts on "Crazy Moon"? That seems an odd way for them to establish their own identity. On the other hand, would RCA have signed Crazy Horse otherwise? After one terrific debut album, a few disappointing follow-ups, and the loss of songwriter/guitarist Danny (I Don't Want to Talk About It) Whitten via overdose some years back, would you?

Anyhow, this album is neither a surprise nor a disappointment: Music and feel are more important than lyrics, production is guitar-heavy, the attitude is somewhere to the left of country/rock, and the whole thing sounds (hurray!) just super. Lead guitarist Frank Sampedro doesn't need Young but would have been foolish to turn down the help. "Crazy Moon" will sound just as good five or ten years from now as it does today or as it would have five years ago. How many of the albums in your present collection can match that?

J. Geils Band: Sanctuary. Joe Wissert. producer. EMI America SO 17006, $7.98. Tape: • 4X0 17006, • 8X0 17006, • 57.98.

After a brief period under the more progressive-sounding moniker "Geils," the J. Geils Band has returned to its full name on an album that stresses that it is, indeed, a band. The playing is cohesive and the songs are all collaborations between vocalist Peter Wolf and keyboardist Seth Justman.

It's ironic that the first recording produced since the band's split from the r&b-oriented Atlantic label should be its most r&b-influenced in years. "Sanctuary" is not the wild, unrestrained blues of the First I Look at the Purse days; with the exception of "Can't Stop Me," the band apparently has decided not to compete with the Springsteen-Southside manic blues contingent. Instead it has opted for the dark side of commercial r&b, emulating the feel of the mid-Sixties classics of frustration with its own One Last Kiss and the title cut. Magic Dick, who ranks as one of the premier pop harmonica soloists around, increases Sanctuary's exquisite pain with his harsh points of emphasis. And on the ballad Teresa the bottomless pit of Righteous Brothers-type vocal production yields a believably tragic product minus the schmaltz. Blues-oriented ballads can be dangerous territory: At best they're piteous, at worst they're hackneyed restatements. Teresa is the album's shining moment: a package of relentless desperation that still leaves the listener with an urge to go back and hear it again. One hopes the J. Geils Band never finds its real sanctuary: the search for it provides such clearcut rewards.


Maybe we need a new category to cope with albums by musicians like John Handy or Ronnie Laws. Their LPs aren't really jazz, yet they contain far too much jazz to be called r&b with jazz trimmings, which is how one can describe the music of, for instance, Earth, Wind & Fire. No, as jazz "Handy Dandy Man" absolutely doesn't make it; it's too easy, too glib, and too slick. But all those negatives become positives from the point of view of general pop/disco. Play the Music: the album carries on the good old new-dance nonsense tradition, with Handy making all sorts of macho noise out of dancing (I think) the Worm. Lady, Lady bounces along jauntily like a conga-shod pogo stick. Disco Samba develops into a push-me-pull-you between trivial disco backup singing and some easy swinging solos. I Gotta Let Her Know struts nicely, with weird echoes of--of all things--the Rolling Stones.

It's all as solid and permanent as a snowman, and all well within the contemporary pop mainstream. But the elegance and flair are real. Handy's playing may be light by comparison with the "heavies," but it's always urbane and tasty. He isn't a particularly innovative saxist, but he's turned his wide variety of sources—from r&b honkers to new-thing squawkers into a personal style of considerable breadth. The same can be said for his singing, which builds on its blues roots into r&b and light soul and funk. "Handy Dandy Man," in fact, is a thoroughly agreeable album that gets better on repeated hearings, which is Continued on page 127.
Larry Coryell and the Brubeck Brothers, Direct-to-Disc and Super Disc

Direct Disk Lab's research and development programs along with the establishment of an in-house record pressing facility are bringing you a new breed of high technology recordings. Critically acclaimed by almost every reviewer of audiophile recordings, these records are approaching the upper limits of recording capabilities. To take full advantage of these capabilities a new Super-Disc series is now being added to our existing direct-to-disc series. Super Discs are cut from tape recordings of our direct sessions and offer a less expensive step in sound quality between conventional and direct recordings.

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Stiff Issues Tour LPs Without Clive's Help
by Toby Goldstein

With the possible exceptions of Ian Dury's underexposed debut album ("New Boots and Panties") and a live compilation, Stiff Records is unknown to American rock buyers. In Britain, the independent label's home base, former Stiff-released/managed artists have included Dave Edmunds, Nick Lowe, Graham Parker, and Elvis Costello—chart certainties capable of setting any distributing label's heart aflutter. Yet Stiff's alleged U.S. representative, Arista, has opted to neglect these five admittedly quirky, yet potentially commercial LPs. Released together as the Be-Stiff Route 78 Tour LPs, they are the stuff of Stiff's future dreams. Those dreams have already been fulfilled in the case of teenage Rachel Sweet, whose cover of Carla Thomas' "Bah!

the British Top 10 in the first week of 1979. Despite Arista's decision (and lack of explanation for it), most of the material here is accessible to the American audience and certainly worth tracking down at your local import specialist.

Jona Lewie's "On the Other Hand There's a Fist" is probably the most taxing to U.S. sensibilities. Lewie fancies himself a raconteur and, accompanying himself with repetitive piano figures, calls to mind scenes ranging from an amusement park spin (The Fairground Ride) to the self-explanatory The Baby, She's on the Street. His vocals are light and frothy, his touch delicate, and the album—a direct descendent of early English music-hall themes—ought to find empathic response from followers of the Randy Newman style.

Mickey Jupp's "Juppanese" and Wreckless Eric's "The Wonderful World of . . ." together span the twenty-five-year history of rock & roll, from its origins in the American South to its most recent vital manifestation in the British New Wave. Jupp's album is schizoid, a result of one side being fast and snappy (and produced by popmeister Nick Lowe), and the other side being weighty and thoughtful (produced by Procol Harum's Gary Brooker). My choice rests squarely with the Lowe tracks, which, in a Fats Domino-derived manner, cover ground from school days (Short List) to fear of flying (You'll Never Get Me Up on One of Those). Dave Edmunds' Rockpile supports the Lowe side with flawless backing.

Wreckless Eric is the latest in a line of gravel-voiced lovable lunatics. He shows an unexpected versatility, exploding on his own tunes and covering the sensitive Buddy Holly Crying, Waiting, Hoping and the absurd Top 40 hit Dizzy (remember Tommy Roe?). "The Wonderful World of . . ." comes closest to having a single standout in Take the Cash, which seems destined for classic status. Its lyric makes it an appropriate theme song for free-lancers worldwide: "and when somebody tells you there's a check in the post/you know it's just a joke."

If Rachel Sweet's "Fool Around" sounds equal parts British rock and American country, look to its combination of British compositions and players with a displaced sixteen-year-old from Akron, Ohio, via Nashville. This year's model of Brenda Lee, Sweet is a little girl with a big, robust voice that is equally suited to Dusty Springfield's chestnut Stay Awhile and to producer Liam Sternberg's tension-filled Who Does Lisa Like?

Miles away from Sweet's obvious charm is the deliberately mysterious Lene Lovich, who has been unfavorably compared to Patti Smith by fans of the latter. I won't deny their vocal similarities, but from this perspective Lovich is stronger. She is less filled with rage than she is with love and fear—the apprehensions of the "Stateless" wanderer. The combination of girl-group arrangements applied to Slavic-tinged numbers (Home, Sleeping Beauty, and Writing on the Wall) and tight band backing from her crew, the Musician's Union(!), makes Lovich the most promising of Stiff's bright lights.

Jona Lewie: On the Other Hand There's a Fist. Jona Lewie, producer. Stiff SEEZ 8, $8.98.
Rachel Sweet: Fool Around. Liam Sternberg, producer. Stiff SEEZ 12, $8.98.
never a bad test. Producer Benny Golson is an old jazz hand, and he and Handy reconfirm the old forgotten truth that jazz and pop are close cousins—closer than critics care to remember.


Predicting broad pop success for Ian Matthews at this point seems risky, since he has released more than a dozen albums as a leader or soloist. Yet “Stealin’ Home” tempts just such a bet on this British singer and songwriter. While old fans would surely argue that it isn’t his best work, he achieves a confident pop stance that seemed truly endangered on its predecessor, his second and final Columbia album.

Matthews’ cult stature seems to be based on his surfeit, not lack, of hooks. Although his most well-known pedigree is his early association with Fairport Convention, his solo output makes him a naturalized Yankee. (He’s also lived here since the mid-70s.) Had he chosen to record only his own songs, Matthews might have bobbed toward the upper reaches of the singer/songwriter hierarchy; he had held to his early fascination for country and folk elements, he might even have become an alternative to the Eagles.

Instead, he draws from an eclectic array of sources, cutting his own bitter-sweet ballads and songs from both revered and unknown outside writers. On “Stealin’ Home,” the melancholia that has sometimes proven a strong suit is tempered by a more ebullient rock emphasis, yet even on the uptempo moments a brooding sense of resignation surfaces. Whether singing his own songs (Let There Be Blues, Slip Away, and the quietly angry title song are the most notable) or those of Robert Palmer, Terence Boylan, John Martyn, or Rodgers & Hammerstein, Matthews imbues his work with an aching sweetness.

There are two successful forays into a more elegantly funky style—Palmer’s Gimme an Inch and Martyn’s Man in the Station—but the highlights are his ballads. Two standouts are Richard Sterk’s Yank and Mary (which borrows a chorus of Chaplin’s Smile to provide a sweeping, cinematic bridge) and a brief, overdubbed a cappella choral setting of Carefully Taught from South Pacific.

Matthews here reunites with producer Sandy Robertorf, who guided the singer’s best collaborative work (Plainsong’s “In Search of Amelia Earhart,” the quartet’s lone release). Robertorf effectively brings out the warmth of Matthews’ smooth tenor with a clarity that has been missing since the self-produced “Some Days You Eat the Bear” (1974).

This is classy, intelligent pop informed by a mature stylist who deserves a wider audience. With the small but feisty Mushroom label finally according him the treatment his music has nearly always suggested, Matthews really could steal home this time.


As fans of New Orleans music will quickly realize, “The Neville Brothers” represents one of the more seasoned debuts of the year. Although it is the first formal recorded collaboration of all four brothers, their imprint on Crescent City r&b stretches back over a decade: Aaron Neville had some single hits in the mid-60s (most notably Tell It Like It Is), and Art and Cyril were both members of the Meters, New Orleans’ premier instrumental ensemble.

When the Meters broke from producer/mentor Allen Toussaint, and the original lineup subsequently collapsed, the three Nevilles teamed with brother Charles, who has written all of the originals here. Like a number of recent works by their local peers, “The Neville Brothers” reflects some care in fashioning a more cosmopolitan style that reaches beyond the second-line syncopations of theirballads. The outside influence at hand is producer Jack Nitzsche, who happily hasn’t uprooted their basic instincts in the interest of a smooth crossover.

Best known to ‘70s rock fans for his work with Neil Young, Mink DeVille, and other rockers, Nitzsche cut his teeth in the early ‘60s as an arranger, producer, and musician within a pop milieu shaped by strong black singers. This ex-plains his respect for the Nevilles’ basic instincts. Instead of imported New York or L.A. session ringers, instrumental backing is dominated by local musicians, with the Nevilles on keyboards and percussion. Nitzsche concentrates primarily on showcasing their rich choral singing and melismatic solos. Equally important, he has guided them to select outside material that draws from some surprising sources and complements Charles’s writing.

Some of those choices emphasize the early heritage: for instance, the lesser-known Leiber-Stoller gem Dance In Jones (originally cut by its cowriters, Dino & Sembello) and the evocative Arianné, which trades in ripe local images. Others, though, are from singer/songwriters seldom covered by r&b stylists. John Hiatt’s Washable Ink undercuts its aching melody with darkly fatalistic lyrics, and in the Nevilles’ reading, neither quality is obscured. They cover David Foreman and Goffin-Goldberg’s Audience for My Pain with equal success.


Todd Rundgren’s versatility in the recording studio has been measured by his continual, chameleon shifts in songwriting and arranging styles. Engineer, producer, and multiinstrumentalist, he has taken his melodic pop and rock instincts from concise, commercial readings (Hello, It’s Me and last year’s Can We Still Be Friends) to bloated abstraction (much of his work with Utopia) and back, often within the course of a single LP.

“Back to the Bars” isn’t conceptually organized, but Rundgren is attempting something ambitious. Not in the familiar context of the studio, but on stage, he tries to knit together all the permutations of his style since his first solo outings in
the late ‘60s—a task as impossible as it is admirable. Recorded during a club tour last year, he begins with the sweeping, progressive rock of Utopia, then shifts to slightly varying combinations of old studio partners and some superstar ringers like Hall & Oates and Stevie Nicks, who assist in re-creating Rundgren’s self-contained studio performances.

For all the obvious care lavished on the concerts, there are chronic problems throughout all four sides. For one, Rundgren is an erratic vocalist who needs time to polish in the studio, here he only magnifies his limitations through an ambitious choice of stylistic models—particularly the falsetto crooners, doubtless an aspect of his Philly origins—and the frequent harmonic drift of his backing singers. Less apparent, given the emphasis on arrangements, but equally problematical onstage, Rundgren the instrumentalist isn’t an improvement. As a result, these performances are more replications of their studio models than fresh views.

It should be noted that the shows did offset these obstacles somewhat through the artist’s astute theatrical sense. Video effects, pantomime, and the front man’s droll, post-psychadelic aside (several of which are excerpted in the introductions here) all added some pacing. But such fillips can’t be pressed into a sonic medium. What we’re left with is an ironic reversal. On the best songs, invariably from the solo albums, Rundgren and his veteran support muster only pale versions of material he so convincingly animated entirely by himself in the studio. Despite the intelligent anthology suggested by the repertoire, “Back to the Bars” is recommended for die-hard Runt fans only. Newcomers and occasional admirers are better off investigating last year’s solo “Hermit of Mink Hollow,” where an unassisted Rundgren paradoxically sounds far livelier than he does here.

S.S.

Rod Stewart: Blondes Have More Fun.


You common cry of curs! whose breath I hate
As reek o’ the rotten fens, whose loves I prize
As the dead curvatures of unburied men
That do corrupt my air,—I banish you.

—Coriolanus, III. iii

No matter what his musical accomplishments, a singer/songwriter’s stock-in-trade is finally his sensibility. Self-revelation is the name of the game, and inevitably one must pass judgment on that self. On “Blondes Have More Fun,” Rod Stewart flunks.

Once upon a time, Stewart had his heart in the right place. He was man enough to admit when he was wrong, and boy enough to want to do right. His love songs were extraordinarily generous, and his lust songs had a high-spirited innocence. Even when he became a star, his lyrics retained a working-class lad’s bemusement.

But “Blondes Have More Fun” is one long, debauched smirk. What’s offensive is not the album’s lechery, but that the lechery is so coarse and contrived. And even more offensive are Stewart’s coy pleading for pity, as if he really expected us to believe that he’s so hard up he spends his evenings alone with pornographic magazines. “Ain’t love a b itch?” he bellowingly sings, and women bear all the blame. The credibility gap gapes like the Grand Canyon.

Not only does Stewart’s character seem shot, but so do his vocal cords. His singing is pinched and often muffled. On his version of the Four Tops’ “Standin’ in the Shadows of Love,” he squawks like a child with a speech impediment. The other songs are originals in the sense that Stewart penned the self-selling lyrics, but several of them are crass covers—especially “Do Ya Think I’m Sexy?,” which is a club-footed imitation of disco that lacks both the understanding and the integrity of the Rolling Stones’ “Miss You.” Like most of “Blondes Have More Fun,” “Do Ya Think I’m Sexy?” is overproduced, but no amount of instrumental sludge can conceal the hollowness within Stewart’s heart.

K.E.

JAZZ

Johnny Guarnieri Plays Fats Waller.

Norvin Armstrong & James Turner, producers. Taj-Jazz TJZ 1002, S7.98 (Taj-Jazz Records, P. O. Box 694, Los Angeles, Calif. 90049).

For as experienced a Fats Waller stylist as Johnny Guarnieri, this is an oddly balanced collection. During the thirty-five year span between Waller’s death and the current Broadway production of “ Ain’t Misbehavin’” (which has made the world Waller-conscious again), Guarnieri could be depended on to evoke the Waller pianistic spirit wherever he played. But on these twelve tunes, he is, in general, most successful when he is farthest from the customary Waller idiom.

For instance, his delightfully appropriate renderings of “Keepin’ Out of Mischief, I’ve Got A Feeling I’m Falling, Squeeze Me, and Black and Blue” scarcely suggest Waller at all. Rather, they are extremely personal in their flowing, lyrical approach. The problem is that they are all cut from the same bolt of cloth. The only contrast comes from the less successful pieces—pieces that sound as if Guarnieri was knocking on the Waller door but couldn’t get in. There are just two instances—when he really throws himself into the stride style—in which he shows that he still has both the chops and the sensitivity to project Waller: a dazzling ending to a far too long and tendentious “Stealin’ Apples” and his easy, au

Continued on page 132
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The Magical Music of Walt Disney: Fifty Years of Original Motion-Picture Soundtracks. Dick Schory, producer.
Ovation OV 5000, $24.95 (four discs).
Tape: **OV 5000C, ***OV 50008, $24.95.

In a project as massive as it is commendable, producer Dick Schory and his staff have gone through virtually the entire history of the Walt Disney studios to assemble this anthology of original Disney soundtracks. The result is a four-disc set comprising nearly as many hours' worth of selections from practically everything from the first Mickey Mouse cartoon, 1928's Steamboat Willie, through 1977's animated feature The Rescuers and live-action Pete's Dragon. In many cases, the soundtrack seems complete, even when it is not, clever and facile editing has reduced the better parts of such musicals as Mary Poppins, Peter Pan, Song of the South, and Dumbo into complete-sounding précis. Large segments of Fantasia, Bambi, and the score for the documentary The Vanishing Prairie are included, as are the musical themes from several Disneyland and Walt Disney World attractions. The sound has been cleaned up considerably, and the boxed set includes a handsome, informative fifty-two page four-color softcover book.

Due to—according to Schory—contractual problems, Alice in Wonderland and 20,000 Leagues Under the Sea are included neither on the LP nor in the accompanying text. And there's only a fleeting reference to the Mickey Mouse Club, with a snatch of the Mickey Mouse Alma Mater at the end of the album's overture. Churlish to complain, perhaps, but nonetheless maddening. And some might find fault with the sound reprocessing of some of the earlier material, since it tends to get a bit too echoy.

The package was not assembled as a children's record, though it will doubtless appeal to youngsters. Rather, it was intended as an intelligent and loving salute to what may have been the best music department of any motion-picture studio. It's a handsome piece of living nostalgia for all of us.
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thoritative interpretation of Alligator Crawl.

Guarnieri also sings two songs—‘I'm Not Worrying and I Found You Out—that reputedly have never been recorded before. (The latter is "attributed to Waller," although credited to two other composers, which presumably makes it one of the numerous songs that Waller sold or traded away.) He attempts to copy Fats's vocal mannerisms and asides, and, though he comes close at times, he lacks the sly ebullience and the texture and accent of Fats's voice. As in the piano pieces, he might have done better to avoid the Waller style completely.

J.S.W.

The disc represents Roland Hanna in two settings: a pair of 1977 studio sessions with George Mraz on bass, and an ad lib solo performance recorded in 1974 when Hanna was trying out a piano that Choice Records had just bought. In response to a suggestion from a listener, he chose to play Yesterdays on that occasion, and that is the track that gives this record special distinction. It is an exquisite performance that opens and closes with a bow to Art Tatum, done with great finesse and authority. But Hanna goes well beyond the normal, strictly rhythm style of Tatum, carrying his essence into a gloriously expansive, sweeping exposition that departs from composer Kern completely and becomes idiomatic Hanna.

If the disc had nothing more to offer than this six-minute gem, it would be an essential part of any jazz piano collection, along with the best of Tatum, Garner, or Monk. But Hanna plays two additional unaccompanied solos and four duets with Mraz. The latter are of surprisingly varied quality, considering the usual consistency of both musicians. They turn Chopin's Etude No. 6 (which they call Majoreca) into a warm, expansive excursion with a dusting of Latin rhythm, and buoyantly develop the warm, floating line of Hanna's Meeting of the Minds. Their treatment of the other original—Mraz's What, Does It Matter?—is not as striking, though its dark, singing melody gives Mraz a chance to show off his lyrical polish.

Unaccompanied, Hanna finds relatively little inspiration in Harold Arlen's My Shining Hour. He is in much more fertile vein on Where's That Rainbow (a lovely Rodgers & Hart song from the 1926 Peggy-Ann), but though he shows a steady variety of invention in its development, the song falls when he attempts to stretch it out to over seven minutes. The gentility that colors and, to some extent, affects all these performances is finally broken on My Heart Stood Still when Hanna loosens up and, with an occasional earthy grunt, gets into a rolling, energetic groove that gives the set its most swinging moments.

J.S.W.

After twelve years with Atlantic, saxophonist Eddie Harris has switched labels. “I started singing to elevate myself financially,” he recently said, “and they thought I couldn’t hold a tune. So I just figured I should go elsewhere. The future for an instrumentalist is really a whirlpool of financial disaster.”

All that is a whirlpool of raison d’être, and this record is caught up in the swirl. The rub begins with Harris’ avowed aim of economic survival. As the first jazz sax player to use electric attachments creatively, he has already struggled for years to mate commercialism with integrity. Still, despite past brushes with major success (Exodus, Freedom Jazz Dance, and Compared to What), the current jazz renaissance has passed him by. On “I’m Tired of Driving,” he thus stoops to a largely superficial approach to crossover. And that’s sad. Producer Richard Evans’ stock arrangements sound dated. Harris’ sax playing is severely limited, and his tones are relatively colorless.

But there’s still some good news. Harris’ voice (he actually started singing a number of albums ago) is just quirky enough to be original. It’s true that at times he really can’t hold a tune, but who cares? When he sings slow, string-backed ballads (You Stole My Heart), his voice is so heartbreakingly reminiscent of his horn style that it becomes captivating. And when he does his own engaging social commentary-talking blues (I’m Tired of Driving and What’s Wrong with the World Today) he doesn’t need a singing voice. Furthermore, while his blowing is static, at least it isn’t mindlessly sweet, like that of crossovers kings Stanley Turrentine and Gato Barbieri. Instead, Harris achieves a gritty, funky tone in line with current “new music” giants like Oliver Lake. And, there’s at least one noncommercial track in the sax and voice tour de force. The Loneliest Monk, which recalls Harris’ best moments at Atlantic.

The point is, if you listen closely, you can still hear Eddie Harris on this record. He’s doing the things that are inherently commercial. What they need now is the right setting to shine in.


Carmen Leggio has led a will-o’-the-wisp existence in jazz. When he appeared in Maynard Ferguson’s band in the late ’50s, he was one of the most exciting saxophonists to arrive on the scene. Later, he was part of the 1963 Woody Herman band that marked Woody’s resurgence from the doldrums of the ’50s. But until recently, when he joined the Thad Jones-Mel Lewis band, relatively little had been heard from him. This disc makes one wonder why, when he not only remains very persuasive on tenor sax, but is now also playing alto with equal facility.

“Aerial View,” made with a quartet of colleagues from the Jones-Lewis band (Frank Gordon on trumpet, Harold Danko on piano, Ray Drummond on bass, and Lewis on drums), features alto on one side and tenor on the other. The alto side is easily the more rewarding as far as Leggio’s playing is concerned. It opens at full tilt with his own Singing on Dreamstreet, a boppish piece executed with polished phrasing and a light, airy driving attack. It’s done with such authority that one is scarcely conscious of his Parker-derived foundation. The next tune, Okay Bug, is a slow blues Leggio first recorded in 1961. Here he plays with such feeling that he eventually seems to take the notes one by one and shake them between his teeth. Next comes a flying, virtuosic blast through Stella by Starlight, followed by a catchy, lilting jazz calypso called Pogo. The second side offers equal variety—bop, ballad, funk, and up tempo—all but more of the weight is borne by the ensemble. Gordon, who shares most of the solo space, tends to stay within a limited, typically boppish style, muttering rather colorless lines that occasionally rise to a singing tone when he uses a mute.

J.S.W.

Mary Osborne, Marian McPartland, Vi Redd, Lynn Milano, Dottie Dodgion: Now’s the Time! Halecon H.A.L. 115, $5.98 (Halecon Records, 302 Clinton Street, Bellmore, N.Y. 11710).

Marian McPartland is an activist in so many fields—music, education, and women’s rights—to name a few—that it is continued on page 136.
Can't Smile Without You & 30 Easy Listening Hits. WBP, 31 songs, $5.95.

Dust in the Wind & 50 Rock Classics. WBP, 51 songs, $6.95.

"Can't Smile Without You" features recent releases by top-selling artists such as Donna Summer, Eric Clapton, the Bee Gees, and Kansas, while "Dust in the Wind" recalls such blockbusters as You're So Vain (Carly Simon), Layla (Derek & the Dominos), Suite: Judy Blue Eyes (C&N), and A Horse with No Name (America). Hardcore folk feeks probably already own copies of these predisco ditties, but both volumes are right on target. The material is top quality, and there is only one duplication between the two books.

Chick Corea, Vol. 2. WBP, 14 songs, $6.95.

Play like Roger Williams, Book 4, Big 3, 14 songs, $3.95.

I love listening to Chick Corea's albums, but I was a little hesitant about tackling his very demanding piano scores, charming as they are. So I decided I'd better try to "play like Roger Williams"—after all, Liberace has been doing just that for twenty-plus years. Both folios are excellent. Just make sure you know your own limitations.

The Doobie Brothers Complete. WBP, 72 songs, $9.95.

The Eagles Complete, Revised Edition. WBP, 48 songs, $11.95.

The Warner Complete series offers an opportunity for the serious student of songwriting to examine all the published works of one particular set of composers/lyricists. The Doobies' brand of hard rock is raucous but disciplined. Many of the songs have been written by Tom Johnston, and most of them are transcribed in accompaniment form, which means that you have to play one set of rhythms while you're singing another. Although the Eagles' melodies are mirrored in the piano right hand, the arranger has taken pains to notate every vocal curlicue, and some are too fussy to play and sing simultaneously. Both volumes are sturdy and handsome in their leatherette-look regimentals, but the tariff is high, and even the most dedicated musicologist will want to think about the possibility of o.d.-ing.


This new 383-page volume is the paperback edition of a 1976 coffee-table tome. While the piano-vocal settings (by Milton Okun and Ronnie Ball) are expressly tailored to fit the relaxed capabilities of the let's-gather-round-the-piano crowd, at the same time they preserve the writer's integral folk-flavor. The table of contents is printed in chronological, not alphabetical, order, and a generous supplemental index of titles, first lines, and key lines is also provided.

The Jazz Styles of Maynard Ferguson. WBP, 9 songs, $5.95.

Notating music for print is a painstaking and exacting science. I am puzzled, therefore, by publishers' insistence on anonymity for their folio transcribers.

Here, for instance, is a work of genius with no credit given to the artisan responsible. Every shading of the incandescent Maynard Ferguson horn is pinpointed and accompanied by a separate piano part that reads almost like a conductor's score, with instrument cues and all. The book features excerpts from "Conquistador," "New Vintage," "Chameleon," and "Primal Scream," and I highly recommend it for the serious student.

FM: Songs from the Original Movie Soundtrack. WBP, 16 songs, $6.95.

This folio reduces Warner Bros.' passion for editorial anonymity to the absurd. In its m.o.r. collation of music performed and/or written by Boz Scaggs, Billy Joel, Linda Ronstadt, Steely Dan, and compatriots, not only is the transcriber uncredited, but in ten pages of stills from the film, we never learn the names of anyone in the cast. Check the contents first—you may already have some of this material on your folio shelf.

Genesis: A Trick of the Tail/Wind and Wuthering. 17 songs, WBP, $7.95.

The lyrics of Genesis are—to say the least—abstract and deal with fields of inceptive, boot-licking lava-lovers, and blinkered archetypes; they are definitely not for the sing-along set. And when I am reading multimeter, atonal music, I need all the help I can get. So I take a dim view of the folio's fuzzy brown-on-brown simulated parchment stock. There may be some glory here, but if mine eyes can't see it, what's the point?

Foreigner: Double Vision. WBP, 10 songs, $6.95.

The Bee Gees headline this month, first by themselves in the up-to-date second "complete" volume and second with Peter Frampton in the "Sgt. Pepper" folio. The latter is, of course, yet another collection of Beatles tune reprints, so its value lies in its smashing visuals—acres of detectable stills from the movie, depicting the Bee Gees and Frampton in every conceivable form of glitzy Disney World surroundings. The same goes for baby brother Andy Gibb's "Shadow Dancing" folio—his well displayed physical attributes must definitely upstage his music.

George Benson. WBP, 16 songs, $7.95.

Mr. Benson gives generously of his talent whether it be as a singer, guitarist, writer, or arranger of other composers' material. This folio contains Breezin', This Masquerade, and sparkling new treatments of such standard fare as Nature Boy and Golden Slumbers. We are indebted to Benson and his anonymous editor for a superior offering.

Blue Oyster Cult: Anthology. WBP, 17 songs, $6.95.

Hey there, you with the umlaut over the "o," how come you're serving a seventy-four-page eviction notice on the English language? I'm aware that the boys are pioneers of punk rock (if that's an accomplishment), but I don't get off on musical tantrums. I'll pass on this one.

Cole Porter—America's finest

The Bee Gees Complete, Vol. 2. WBP, 85 songs, $9.95.


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These collections of well-crafted, on-target, contemporary rock pair up nicely with their matching LPs. Foreigner's material is principally the output of band members Lou Gramm and Mick Jones. While Mr. Palmer (a stunning Redford type) is quite capable of writing all of his own songs, this time around he has included compositions by Andy Fraser, Allen Toussaint, and Ray Davies. I recommend these two folios for their solid workmanship.

Journey: Infinity, Screen Gems/EMI, 10 Songs, $6.95.

These piano parts could have been notated by James Joyce, were he alive and working for scale. Nary a recorded semi-quaver has escaped the sharp ear of editor Gary Morowitz, who seems quite concerned that we all take note of his fine musicianship. The impeccable representation of the multilayered rhythm track is a bit much to handle, let alone when combined with the melody. Unless your head and fingers are firmly rooted in rock keyboard playing, this may well be a frustrating experience. I like the group, and I like their material; a little less scholasticism is in order for future song cycles.

Barry Manilow Live, Kamakazi/Big 3, 18 songs, $7.95.

This is a smashing collection of m.o.r. material written by Mr. Manilow and several collaborators, and it includes two exciting stage medleys, along with most of the artist's recent songs. You may already possess some of them in previously purchased folios, but if not this is an excellent introduction to the Manilow catalog. Well-scored piano-vocals (arranged by the artist himself), intelligent blending of music and lyrics, and a plethora of action photos should make this a top seller.

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Those who have a vested interest in Ms. Mitchell's recorded reminiscences will appreciate their transcribed form. Others will object to the skeletal, guitar-tuned keyboard structure and the stringent vocal lines that cannot possibly convey the sensual fluidity of the companion four-sided LP. Notated music, after all, has its limitations. I must commend the arrangements, in particular the hectic nineteen-page Paprika Plains. Why didn't folio designer Mitchell see fit to provide suitable credit for the anonymous editorial artisan?

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Warner Bros. has come up with a do-it-yourself orchestration kit published in five mix-and-match folios to suit your combo's instrumentation. (Only the piano/rhythm edition has lyrics.) Fifteen songs are scored in three-part harmony with contrapuntal accompaniment, and each song's vocal harmonies and countermelodies are interchangeable with the instrumental parts. Most of the selections are "music of today"—Can't Smile Without Your, Stayin' Alive, and Don't Stop—and oldies like Mack the Knife and I Get a Kick out of You have been rhythmically renovated. At these prices you won't get Sy Oliver, but you will have a good time, and the student arranger can gain insight into the techniques of "stock" arranging.

The Cole Porter Years, WBP, 22 songs, $6.95.

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Puente's new Tico album, "Homenaje a Beny," is, in no sense, simple nostalgia. It's more than half a dozen vocalists in.

Continued on page 139
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Clete Cruz, another from Cuba's Golden Age. She is as brilliant as ever, flashing like a kingfisher through the shouting brass of Que Bueno Baila Usted and strong as burnished mahogany in Yiri Yiri Bon. Junior Gonzalez also shines: In Se Me Cayo el Tabaco, he juxtaposes chantied phrases with rising, rippling flourishes, and the contrast is as effective as that between the mambo's stabbing trumpets and rolling saxes. Another high spot is Horizonte Casanova's magnificent vocal high-wire tumbling in Baila Mi Son.

But this isn't just a vocal album. It's also a demonstration of the variety that eight arrangers can get out of salsa's apparently homogenous style. Puente himself kicks the album off to a racing start with typical full-throated, jumping arrangements for Que Bueno Baila Usted and Yiri Yiri Bon. Eddie Martinez gives Bonito y Sabroso strong big-band jazz inflections with some rich yet simple trombone charts. Louie Cruz works up an unusually heavy, swirling brass sound in Francisco Guayabal.

Three cuts stand out. Marty Sheller's arrangement of Baila Mi Son, which opens with classic 1950s mambo patterns, lays down trombone riffs like an inexorably taunting trampoline for Casanova's soaring, spinning vocal. Sonny Bravos' simple, subtle Camarera del Amor uses clean, graceful piano interludes with single staccato chords to kick on the rhythm. And its slurred saxes and alternately heavy and screaming brass subtly set off vocalist Adalberto Santiago's plain-man machismo. Perhaps most tasty of all is Jorge Millet's Santa Isabel de las Lajas with its trombones that pick out the offbeats and saxes that sinuously wrap round the vocal.

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