

Special: Recording Technology's Quantum Leap

HIGH FIDELITY

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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

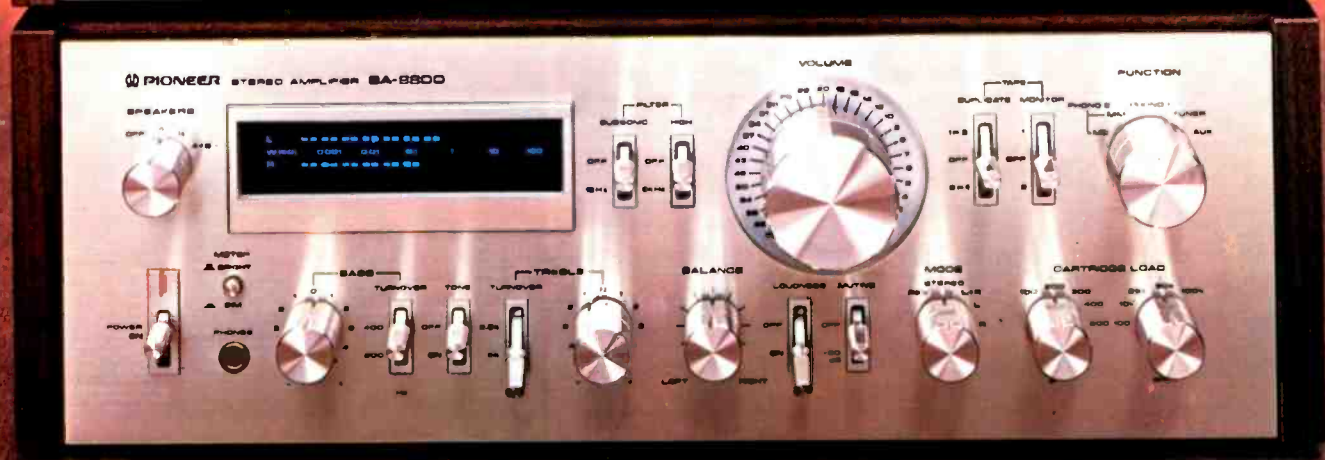
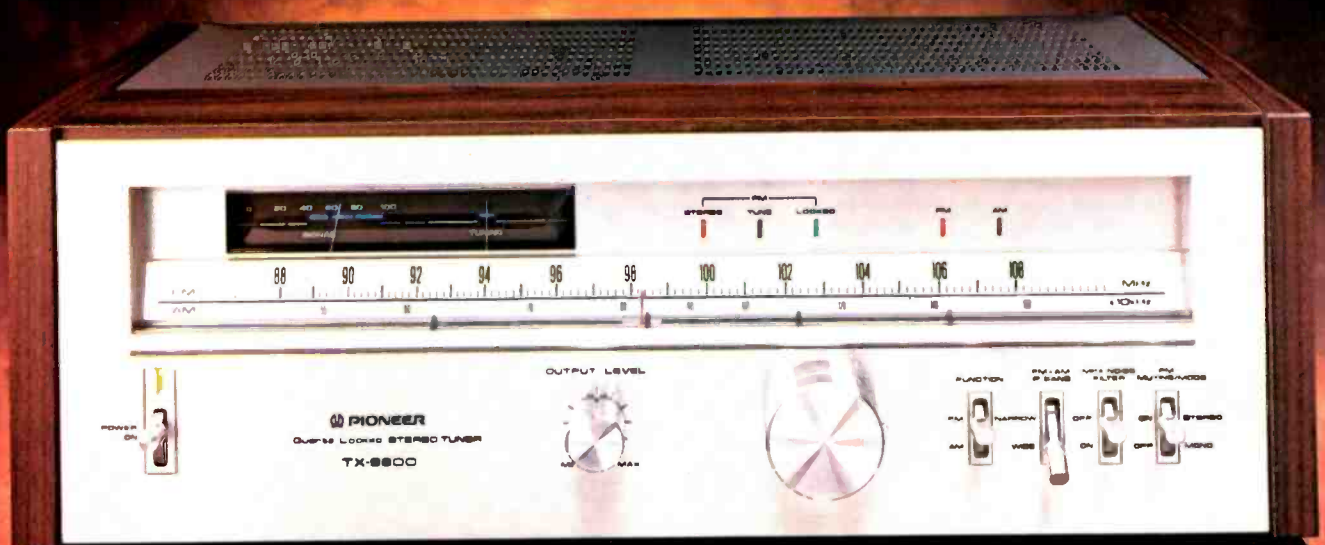


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**Fleetwood Mac, Steely Dan,
Supertramp, George Benson, Al Stewart,
Others on Superdiscs... see Backbeat**



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.

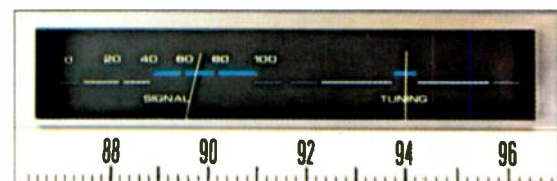
Unlike ordinary tuners that are content with ordinary circuitry, the TX 9800 has a new Quadrature Discriminator Transformer that works with Pioneer's exclusive PA 3001-A integrated circuit to reduce distortion to 0.05% at 1 KHz and raise the signal-to-noise ratio to 83 dB. Whew!

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.

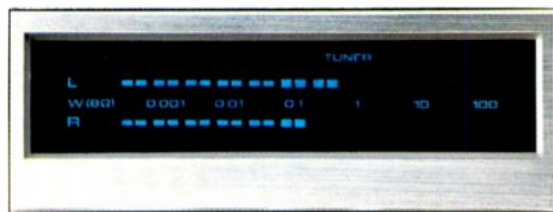
The TX 9800 has Automatic Pilot Canceling Circuitry that makes sure every part of the music is heard all of the time. And that distortion is veritably unheard of.

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.



SIGNAL STRENGTH AND CENTER TUNING METERS FOR A DRIFT-FREE PERFORMANCE.



INSTANTANEOUS FLUROSCAN METERING THAT LETS YOU WATCH EVERY PERFORMANCE WHILE YOU HEAR IT.

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 fight between tuners. With a technical knockout.

PIONEER[®]
We bring it back alive.
c 1978 U.S. Pioneer Electronics Corp.
High Fidelity Components
85 Oxford Drive, Moonachie, N.J. 07074.



THE STRUGGLE BETWEEN THE CLASSES IS OVER.

For years people have clashed over which amplifiers are best. Class A or Class B.

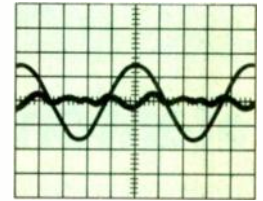
Expensive Non-switching Class A amplifiers are known to offer the lowest levels of distortion. At the same time, they also offer the highest operating temperatures.

And while Switching Class B amplifiers increase efficiency, they also increase distortion.

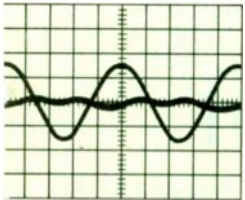
So if you're not paying through the nose for a heat-producing Class A amplifier, you'll be paying through the ear for a distortion-producing Class B.

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.

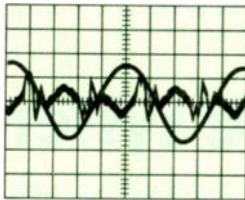
Pioneer's Non-switching SA 9800 offers the efficiency found in the finest Class B amplifiers. With a distortion level found in



SA-9800.
LESS DISTORTION, LESS
HEAT, AND MORE POWER.



CLASS A AMPLIFIER.
LEAST DISTORTION
BUT MOST HEAT.



CLASS B AMPLIFIER.
MOST DISTORTION
BUT LESS HEAT.

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 Fluorescan metering system that is so fast and so precise it instantaneously follows every peak in the 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.

PIONEER®
We bring it back alive.
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What do you get when you put together...



A tonearm worth \$150 ...
(with UNIPOISE[®] patented single pivot point suspension)



A turntable worth \$200 ...
(with GYROPOISE[®] exclusive patented magnetic suspension)



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:
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HIGH FIDELITY

MARCH 1979

VOLUME 29, NUMBER 3

MUSIC AND MUSICIANS

- 14 **Music U.S.A.: Functionalist Criticism** *Gene Lees*
- 72 **Charles Mackerras on Handel** *Bernard Jacobson*
- 78 **Behind the Scenes**
- 83 **Jan Dismas Zelenka, Baroque Eccentric**
R. D. Darrell
- 84 **The Multifaceted Gustav Leonhardt** *Scott Cantrell*
- 85 **Cantelli and the NBC in Stereo** *Harris Goldsmith*

AUDIO AND VIDEO

- 4 **High Technology Recordings: The Secret Ingredient**
Leonard Marcus
- 19 **News and Views**
Videodisc reaches market The beauty of the BEST
- 20 **Equipment in the News**
- 29 **For the Autophile**
- 37 **Equipment Reports**
Aiwa AD-6900U cassette deck
Mitsubishi DA-C20 tuner/preamplifier
ReVox Model B-790 turntable
Hitachi HMA-7500 amplifier
Avid M-330 speaker
Source Engineering Specialist preamplifier
- 52 **Too Hot to Handle**
- 57 **Superdisc: Miking, Mastering, and Other Matters**
Don Heckman
An interview with John Eargle
- 61 **Superdisc: Delivering the Goods**
Don Heckman
An interview with Stan Ricker
- 66 **Superdisc—Will It Fly?**
Kenneth Furie/Harold A. Rodgers.

REVIEWS

- 83 **Featured Recordings**
Zelenka Leonhardt Cantelli
- 89 **Classical Records**
Levine's Bach Michelangeli's Debussy
Solti's *Hansel*
- 90 **Critics' Choice**
- 104 **Mining America's Gold:
Vintage Musical Theater Albums**
Deena Rosenberg
- 109 **Audiophile Discs**
Sound 80's Copland/Ives
 Tommy Tedesco's "Autumn"

BACKBEAT

- 115 **Melissa Manchester** *Don Heckman*
- 118 **Mobile Fidelity's Pop Superdiscs**
Sam Sutherland
- 121 **Input Output**
- 122 **The Doobie Bros. Still Got Rhythm**
Ken Emerson
- 122 **Records**
Walt Disney Elvis Costello
 Rod Stewart
- 126 **Breakaway: Stiff Records Defies Clive**
Toby Goldstein
- 134 **Folios**
Maynard Ferguson Joni Mitchell
 The Rolling Stones

ET CETERA

- 10 **Letters**
- 107 **Reader-Service Cards**
- 139 **Advertising Index**



High Technology Recordings: The Secret Ingredient

Years ago, when the motion-picture 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.

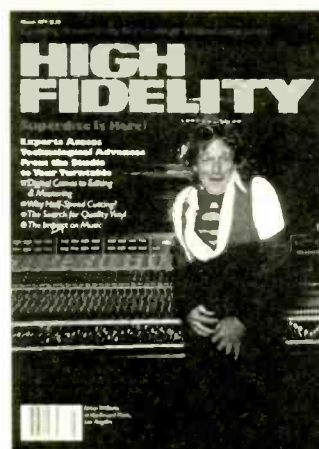
Many well-thought-out techniques, from the studio recording through the final pressing, are being used to produce these new records, which are known as audiophile discs, and the most important are discussed elsewhere in this issue. Some of these discs' masters are cut directly, others taped with a digital 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.

Leonard Marcus



Cover photograph by Richard Arrindell.
For more information, see page 7

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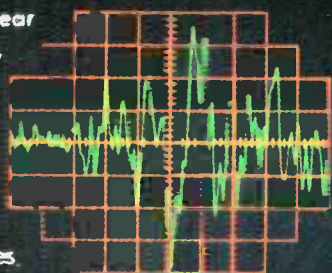
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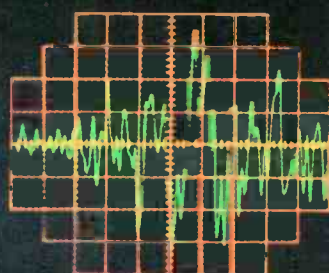
WARREN B. SYER
Publisher

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,



Piano Waveform



Piano Waveform reproduced by SB-7070

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, flatter 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 IBM 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 IMD distortion than its predecessors. 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.



All cabinetry is simulated wood.

Technics
Professional Series

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. In addition, only AIWA gives you Double Needle Meters so you can monitor both Peak and VU functions simultaneously. And, with the AD-6900U, you get total Synchro-Record. When the AD-6900U is used in conjunction with any AIWA turntable, the deck activates recording automatically when the record is cued and stops when the tone arm lifts. Add Full Logic, Feather-Touch Controls with Cue & Review,



Mic/Line Mixing, total Dolby calibration facility with Double-Dolby system, and optional Remote Control, and you can see why the AD-6900U is the Unreel Deck and an Unreal value.

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 of 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[®]



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: 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.

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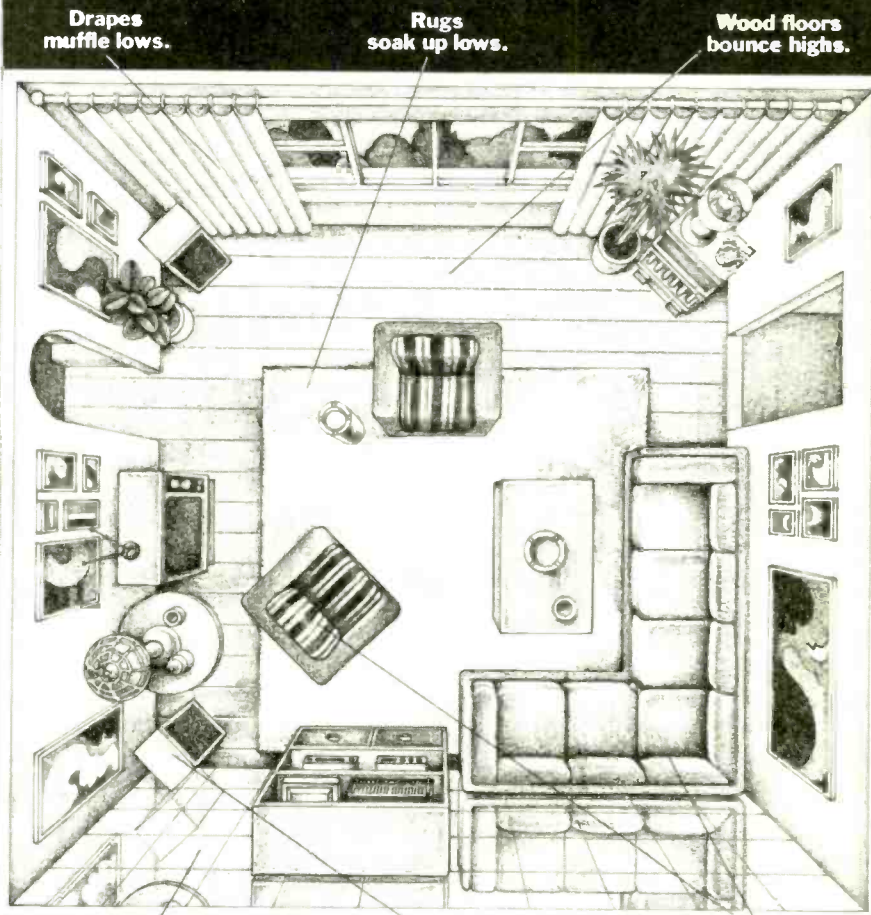
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High Fidelity and High Fidelity/Musical America are published monthly by ABC Leisure Magazines, Inc., a subsidiary of American Broadcasting Companies, Inc. Warren B. Syer, President; Herbert Kessler, Senior Vice President; Photographic Publishing Division: Leonard Levine, Vice President; Advertising: Warren Tuohy, Vice President; Finance: David Lee, Circulation Director; Cathleen Alois, Personnel Director; Member Audit Bureau of Circulation; Indexed in Reader's Guide to Periodical Literature. Current and back copies of High Fidelity and High Fidelity/Musical America are available on microfilm from University Microfilms, Ann Arbor, Mich. 48106. Microfiche copies of these magazines (1973 forward) are available through Bell & Howell Micro Photo Division, Old Mansfield Road, Wooster, O. 44691

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Fine tune your living room.



Mirrors reflect highs.

Poorly placed speakers, poor sound.

Upholstery soaks up lows.

Your stereo probably doesn't have the sound you thought you bought. Because you first heard it in a sound room. Unfortunately, most stereos are set up in rooms designed for living. Not listening.

That's why you need a Sound Shaper® One or Two. The frequency equalizers that re-shape music to fit your ears. And your living room.

Sound Shaper One has ten frequency controls, five for each stereo channel. And beautiful styling. But if your system is more sophisticated, you'll want Sound Shaper Two Mk1 with twenty-four frequency controls (twelve for each stereo channel). Plus, internal switching and monitoring. So highlight the vocal. Suppress the bass. Wipe out the flute entirely. And if you want the professional touch, get the new SLM-2 Sound Level Meter. With it, sound levels can be read directly on the Sound Shaper Two, so no longer will you have to run back and forth between the listening area and the equalizer.

Without redesigning your living room, turn it into a listening room.

Sound Shaper® One and Two



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Pure Power.

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, $60V/\mu\text{Sec.}$ and $1.4\mu\text{Sec.}$ 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.

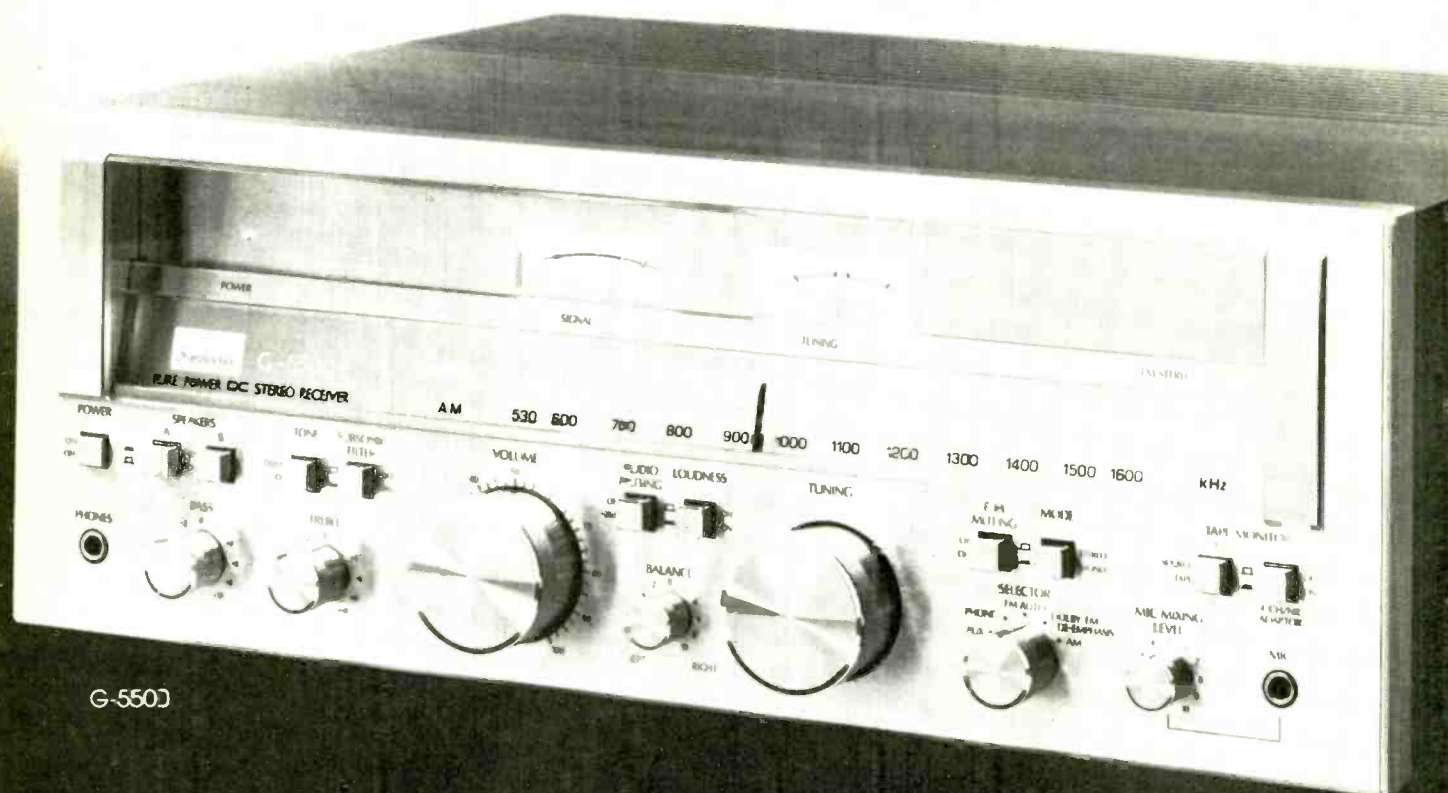
In the tuner section, a dual-gate MOS FET FM front end, three-stage IF amplifier and PLL IC multiplex circuit add up to high sensitivity, pinpoint selectivity and maximum stereo separation.

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

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G-5500

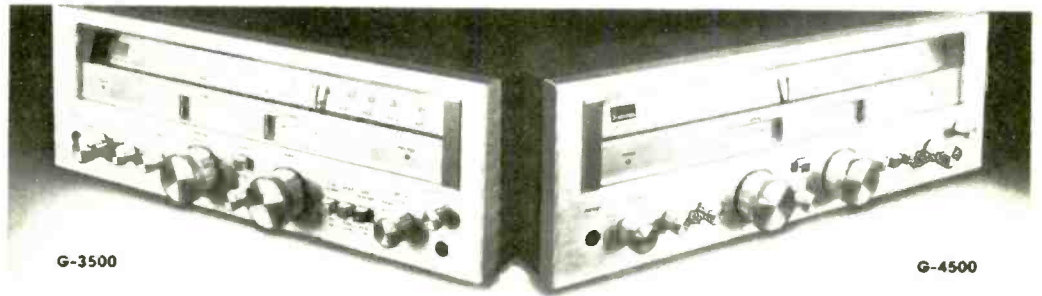
Pure Pleasure. Sansui G-receivers.

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.

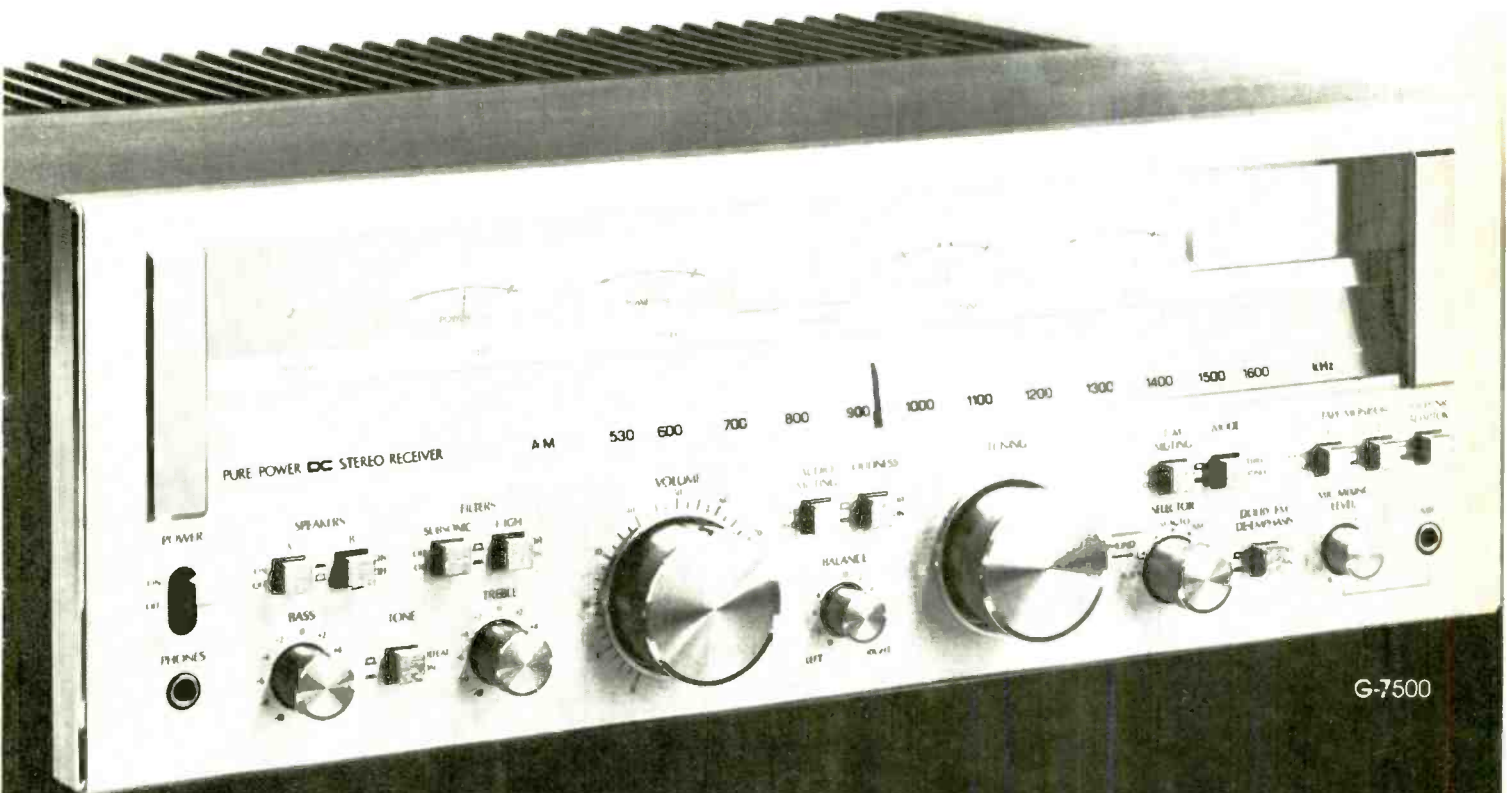
Both the G-7500 and G-5500 are ultra-elegant, with new fine-line lettering, a soft-silver face and handsome rich-looking cabinets of simulated rosewood grain.

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G-3500

G-4500



G-7500



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Unauthorized Recordings

Though I find myself in basic agreement with David Hamilton about the release of unapproved recordings ["Who Speaks for Callas?"—January], 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 bemoan the fact that on my shelves rest, among others, an all-star set of *La Forza del destino* so distorted that it is unlistenable, a *Mefistofele* that captures the conversation of the audience better than the performance on-stage, and an ideally cast *Adriana Lecouvreur* 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 performers 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 repertory. 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 nub 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 Birgit 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 \$13.85 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 Gifford
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

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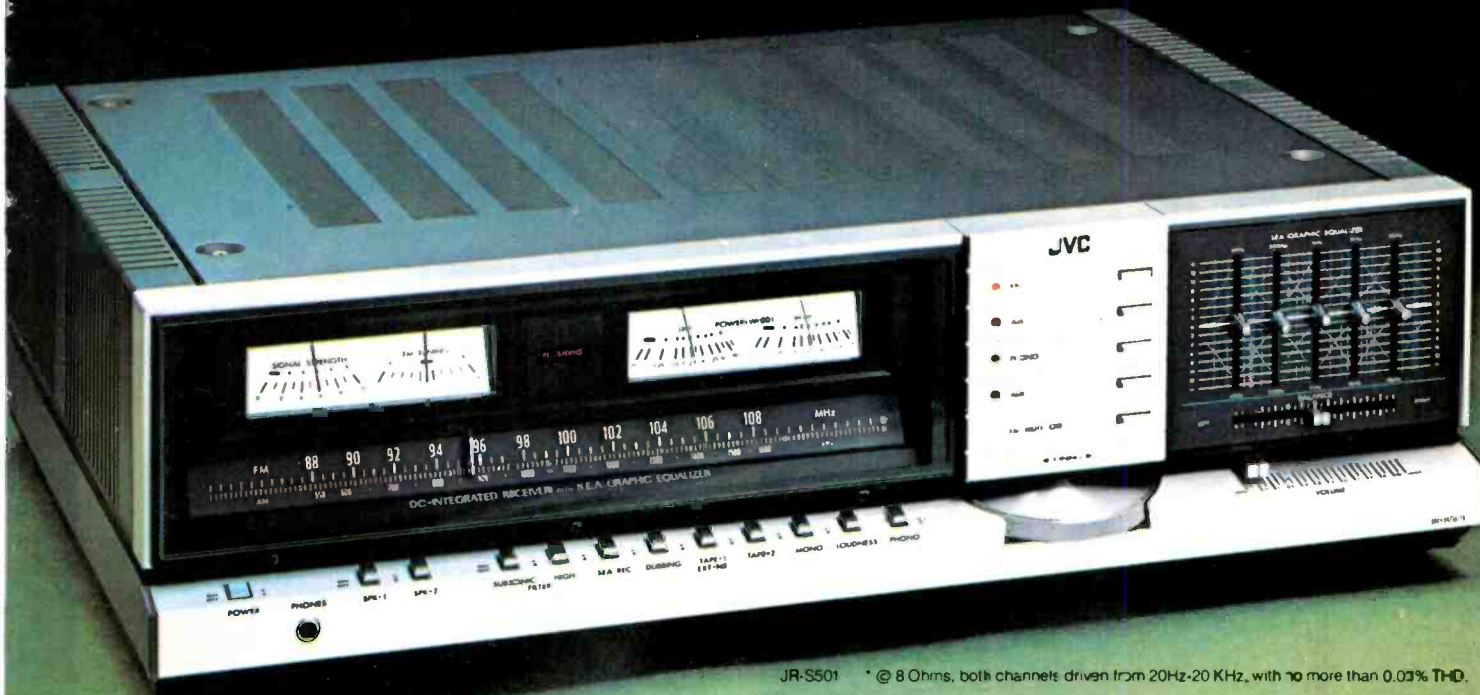
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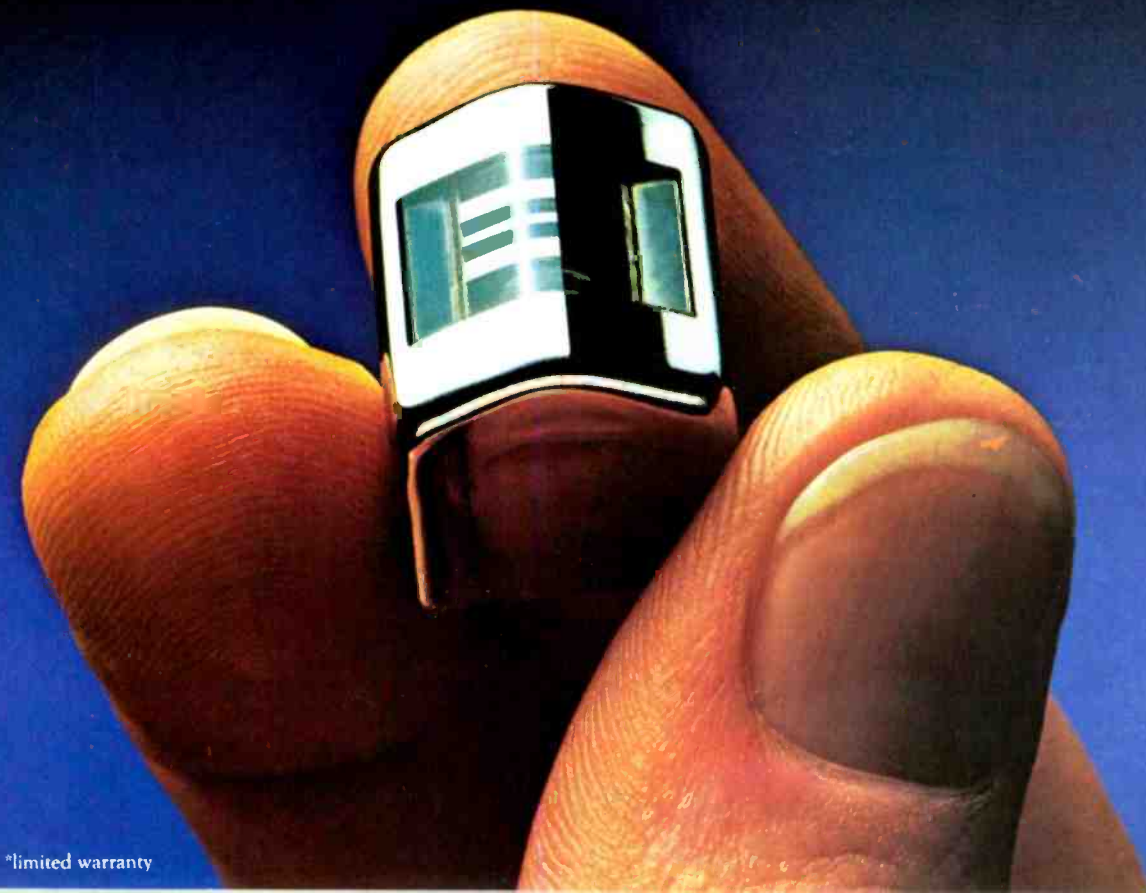
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article. "James Levine on Verdi and Mozart" [December], and particularly the conductor's remarks about Mahler. Levine's broadcasts and recordings are ample proof that Mahler's idiom is as difficult to discover as those of Verdi and Mozart. Evidently 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 sardonic wit, of his barbed intellectuality, 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, Solli, 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 viscous-filled 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 playing 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.

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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 easily 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. ●

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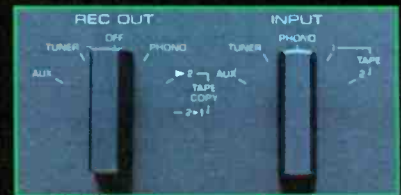
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of 120W per channel into 8 ohms, 20Hz to 20kHz. Signal-to-noise ratio is, (please hold the ap-

plause) an utterly silent 118dB.

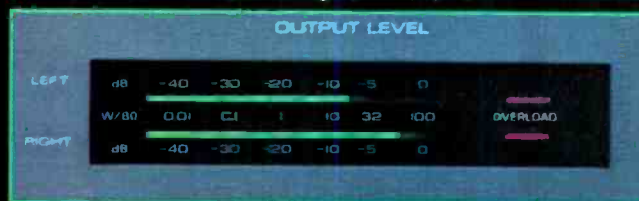
Again though, specs can't do the sound of the M-4 justice. When it comes to doing justice to amplifying a signal from a preamp (especially the C-4) we feel the M-4 deserves a standing ovation. If you love musically accurate sound coming from your speakers, you will be equally enthralled with the sound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

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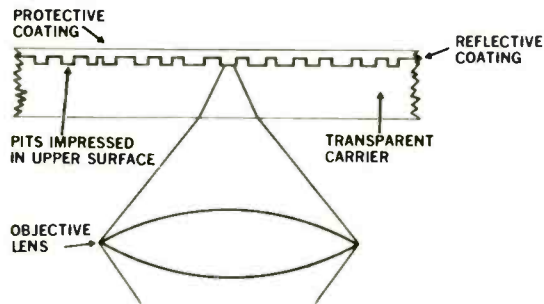


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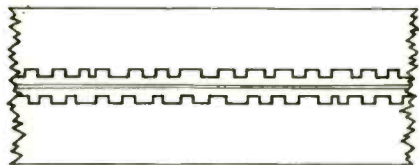
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News and Views

Videodisc Reaches Market



Section of Optical Videodisc



Double-Sided Disc

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 ef-

fects 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 to equal the Magnavision demonstration at its official debut.

The Beauty of the BEST

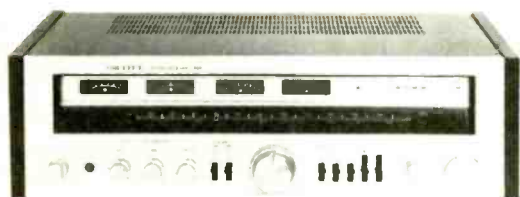
JVC is introducing the KD-A8 cassette deck, which, in addition to its ability to record and play metal-particle tapes, is "smart" enough to adjust its bias, equalization, and sensitivity for optimum results with any available tape formulation. The heart of the automatic adjustment system, which JVC calls 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-particle—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.

CIRCLE 137 ON PAGE 107

Equipment in the News



Scott offers new receiver

H. H. Scott's 370R receiver, rated to deliver 60 watts (17 $\frac{3}{4}$ 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 $\frac{1}{4}$ dBf for 30 dB of quieting. The receiver is priced at \$449.95.

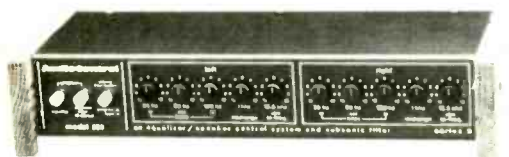
CIRCLE 138 ON PAGE 107



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.

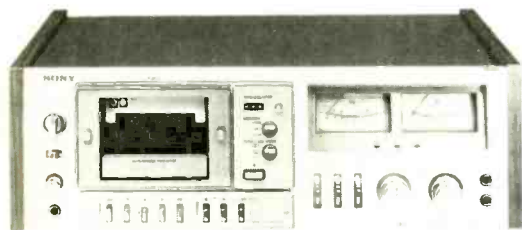
CIRCLE 139 ON PAGE 107



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 Tchebychev 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.

CIRCLE 140 ON PAGE 107



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.

CIRCLE 141 ON PAGE 107

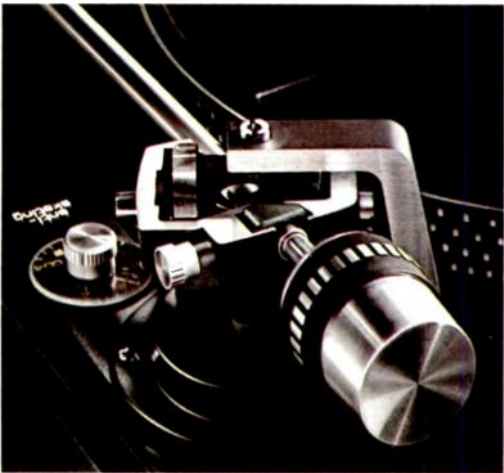


Space Station echo reverb device

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 gyrosuspension 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

Dual[®]

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.

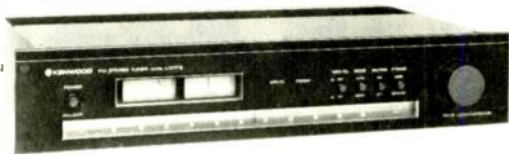
*Dolby is a trademark of Dolby Laboratories.



A-300

TEAC®





Kenwood's Audio Purist tuner

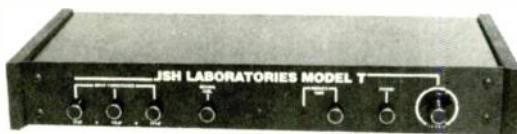
New in Kenwood's Audio Purist Group is the L-07TII FM tuner, which uses a proprietary pulse-count detector for FM modulation. The high linearity of the system is said to account for an improvement of 50% in distortion and 6 to 12 dB in signal-to-noise ratio. According to Kenwood, digital detection allows 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.

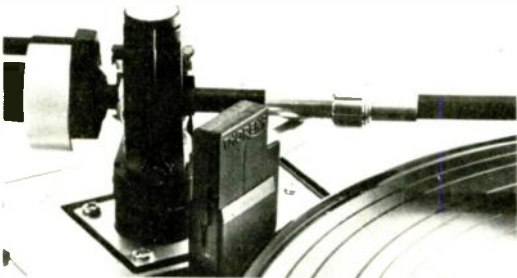
CIRCLE 142 ON PAGE 107



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.

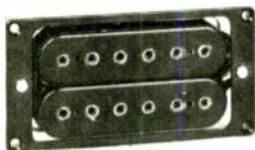
CIRCLE 143 ON PAGE 107



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.

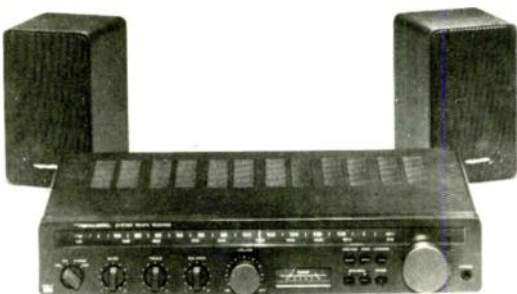
CIRCLE 144 ON PAGE 107



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-mid-range 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.

CIRCLE 145 ON PAGE 107



Radio Shack goes mini

Radio Shack's bid in the ministere 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.

CIRCLE 146 ON PAGE 107

(more)

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.

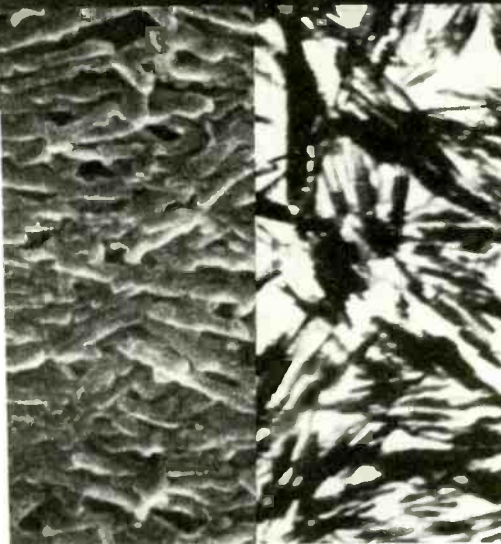
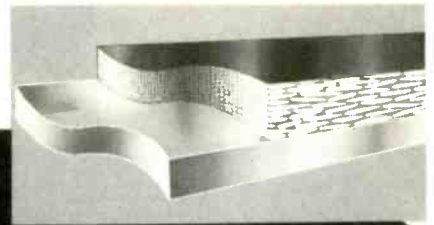
Over 40 years of experience in magnetic ferrite technology and 25 years in developing and manufacturing recording tape, bring the TDK SA and AD cassette particle formulations as close to these ideals as current technology will allow.

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.

clumps nor gaps of oxide build-up. So we suspend our particles in a unique new binding, and we're fanatic about the way we do it. TDK engineers and craftsmen wear surgically clean robes and caps, and we vacuum the air to eliminate

Tape layers: coating (top); backing.



TDK SA tape surface (left) enlarged 30,000 times. TDK Super Avilyn particles (right) enlarged 20,000 times.

contaminating 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,

The Coating

To best attach the particles to the film used for backing, it's necessary to coat that film evenly, with neither

sounds better.

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 mis-tracking 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, drop-outs 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.

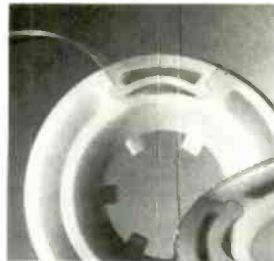
The Splice

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.

© 1978 TDK Electronics Corp.

The Inspection

Before any of our tape is loaded into cassette shells, it must pass a series of inspections to



The TDK double clamp system.



The TDK high tolerance tape/leader splice.

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.



The machine for your machine.®



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 reproduction. 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.

Ampeg Corporation, Magnetics Tape Division,
401 Broadway, Redwood City, California 94063
(415) 367-5887

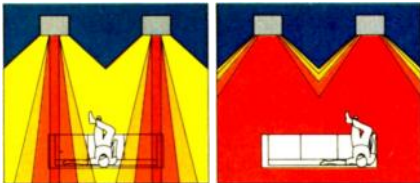


How Audio History is made.



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,



Conventional beaming narrows listening area. Mantaray expands listening sweet spot.

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

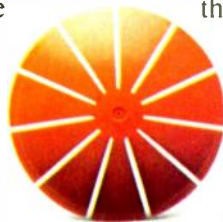
Model 14 enlarges your listening area, your "stereo sweet spot."

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.



Power Control

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.



Tangerine

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.



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%

Only good music. Music without distortion. If your turntable is a BSR Quanta® turntable. You see, with the introduction of the Quanta models 600, 700 and 800, BSR has created a turntable base with virtually no resonance.

NO MORE BAD VIBRATIONS. Other turntables reduce resonance. BSR virtually eliminates resonance with concrete and foam. Low-frequency absorbing foamed concrete inside high-frequency absorbing foam.

Not one little vibration thanks to the isolation of the resonance-tuned suspension feet.

No acoustical feedback. Just beautiful sound. And that's only the beginning.

On every BSR Quanta turntable is an S-shaped statically balanced tonearm. Viscous damped cueing for perfectly smooth arm movement. And on the Quanta 800 is the most accurate Quartz Phase-Locked Loop direct drive motor in existence. The quartz generated pulsed LED strobe display provides visual monitoring of the speed.

BSR Quanta turntables. Non-resonating. Not bad.

BSR

QUANTA®

THE NON-RESONATING TURNTABLES.



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CIRCLE 54 ON PAGE 107

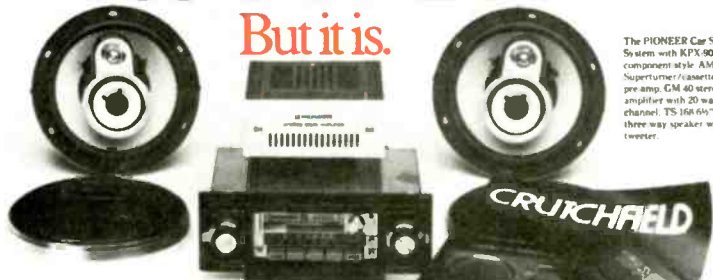
THD and a frequency response of 40-20,000 Hz, ± 3 dB. The equalizer offers 9 dB of boost or cut in each of its five bands. Dual illuminated meters read output power in watts. There's a front/rear fader control for use with four-speaker systems. By the time you read this, a version suitable for handling 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-20EM stereo FM tuner specifies IHF 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-millivolt 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.



The PIONEER Car Stereo System with KPX 9000 in dash component style AM/FM stereo Superturner/cassette deck with pre-amp, GM 40 stereo main amplifier with 20 watts per channel, TS 1645iv round three way speaker with horn tweeter.



AFS/Kriket Classic 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, 3 $\frac{3}{8}$ inches in depth, has power-handling capability rated at 50 watts rms and frequency response at 40-5,000 Hz.

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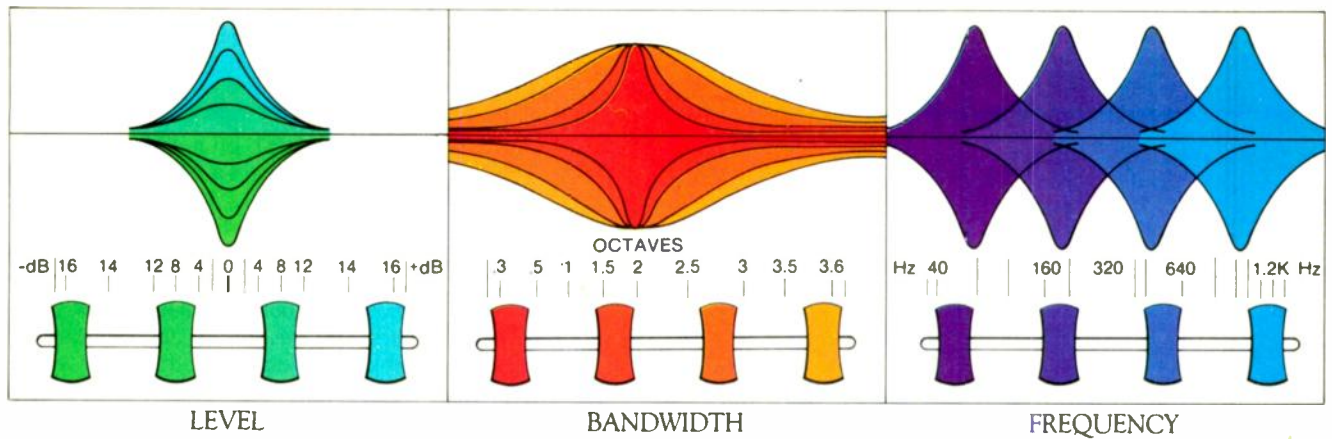
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CIRCLE 14 ON PAGE 107

30

CIRCLE 56 ON PAGE 107 →



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.

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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.

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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-wind 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.

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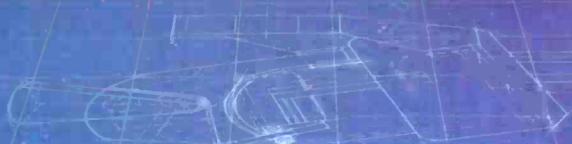
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INTRODUCING THE EMPIRE EDR.9 PHONO CARTRIDGE. IT SOUNDS AS GOOD ON A RECORD AS IT DOES ON PAPER.

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.

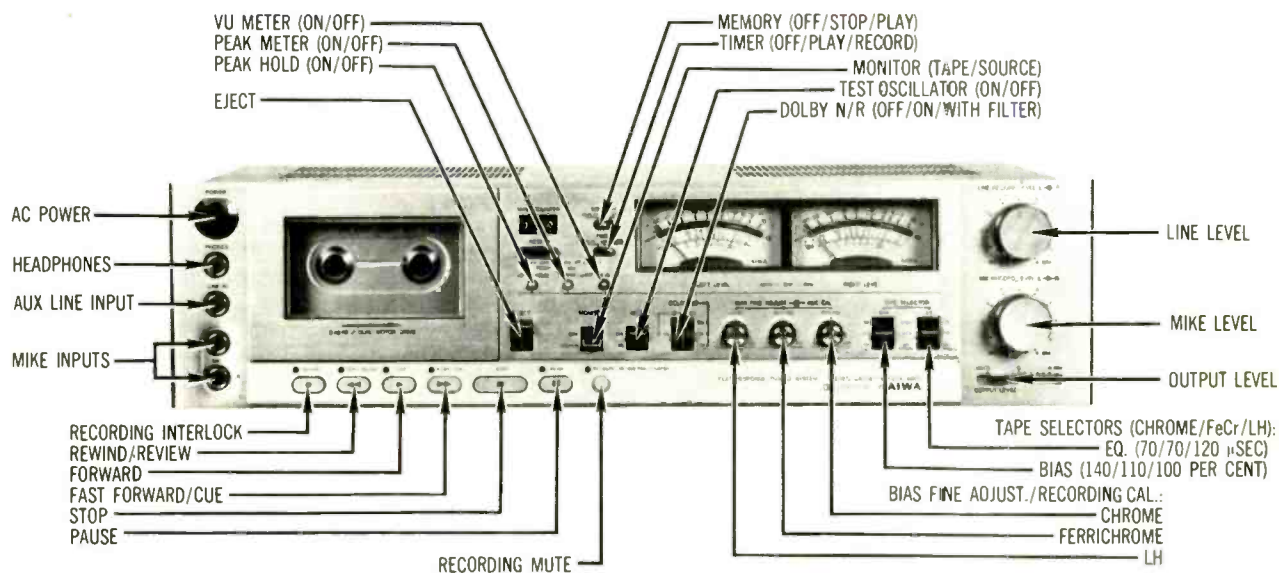
We could go into more technical detail, describing pole rods that are laminated, rather than just one piece, so as to reduce losses in the magnetic structure, resulting in flatter high frequency response with less distortion. Or how the EDR.9 weighs one gram less than previous Empire phono cartridges, 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.

Empire Scientific Corp. **EMPIRE**
Garden City, N.Y. 11530

Preparation supervised by
Robert Long, Harold A. Rodgers,
and Edward J. Foster
Laboratory data (unless otherwise noted)
supplied by CBS Technology Center



A "Loaded" Front-Loader

Aiwa AD-6900U stereo Dolby cassette deck in metal case. Dimensions: 17¼ by 4¾ inches (front panel), 11⅞ inches deep plus clearance for controls and connections. Price: \$850. Warranty: "limited," two years parts and labor. Manufacturer: Aiwa Co., Ltd., Japan; U.S. distributor: Aiwa America, Inc., 35 Oxford Dr., Moonachie, N.J. 07074.

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.

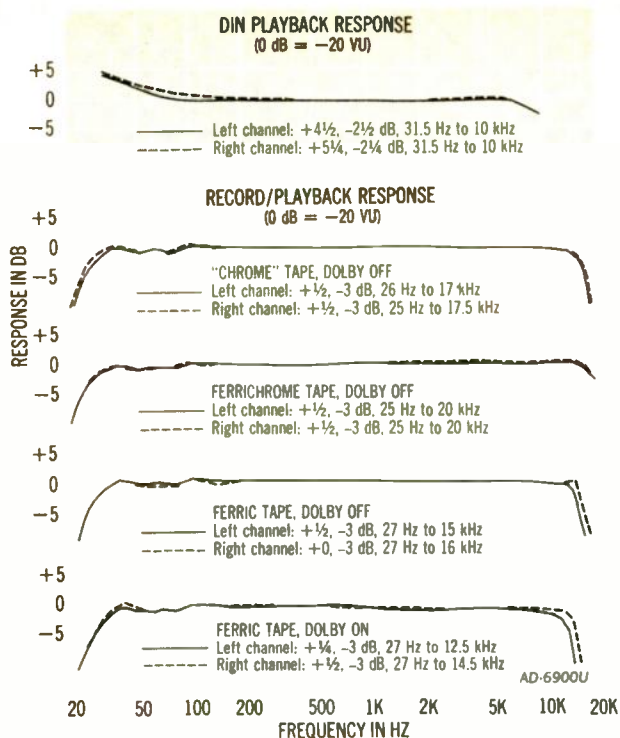
The metering system is exceptionally versatile. Each of the recording meters is actually two meters in one: A short pointer indicates the average signal level on a VU scale that extends from -20 to +5, and a longer needle displays the peak signal level on a second scale calibrated from -40 to +10 dB; 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.



Aiwa AD-6900U Cassette Deck

Speed accuracy	0.33% fast at 105 VAC 0.23% fast at 120 VAC 0.16% fast at 127 VAC
Wow & flutter (ANSI)	playback: 0.030% record/play: 0.035%
Rewind time (C-60 cassette)	63 sec.
Fast-forward time (same cassette)	63 sec.
S/N ratio (re DIN 0 VU, Dolby off; CBS weighting)	
playback	L ch: 53 1/2 dB R ch: 53 1/2 dB
record/play	L ch: 49 1/2 dB R ch: 49 1/2 dB
Erasure (333 Hz at normal level)	67 dB
Channel separation (at 333 Hz)	
record left, play right	41 1/2 dB
record right, play left	41 1/2 dB
Sensitivity (re DIN 0 VU)	
line input	L ch: 115 mV R ch: 123 mV
mike input	L ch: 0.52 mV R ch: 0.54 mV
Meter action (re DIN 0 VU)	
VU	L ch: 5 dB high R ch: 5 dB high
peak	L ch: 5 dB high R ch: 5 dB high
THD (at -10 VU)	~0.28%, 50 Hz to 1 kHz ~0.61%, 50 Hz to 5 kHz
Maximum output (re DIN 0 VU)	L ch: 0.72 V R ch: 0.68 V

gram are heard as breaks in the sound, so you can identify individual sections. Removing your finger from the fast-wind button returns the deck to the normal playback mode. Had the deck been in STOP when the fast-wind button was touched, the deck would have shuttled the tape at maximum speed and without playback.

A REC(ording)-MUTE button creates silent spots in the tape during recording for as long as it is held down. This feature, like many of the others, has an LED pilot; this one blinks at approximately one-second intervals so you can gauge the length of the silence.

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.

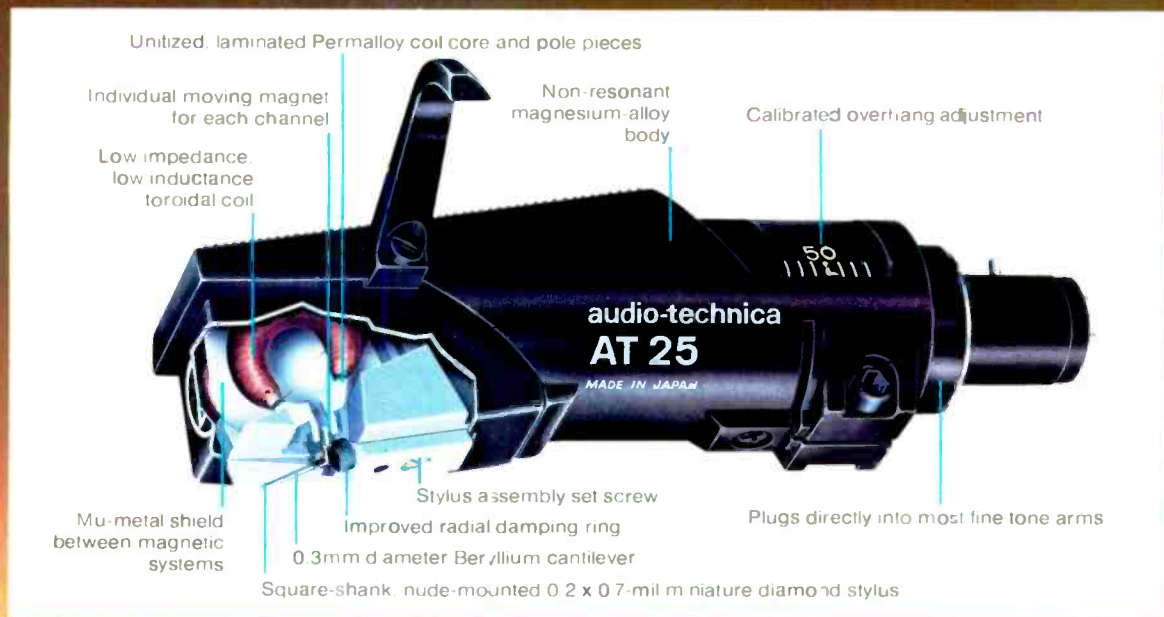
You must take it on faith that the two channels will have identical characteristics and be affected equally by any adjustment, since only the right channel is used in these tests. Our lab measurements suggest the faith is well placed: The differences in playback response between the channels are virtually negligible. And the response is superbly flat 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 + 1/4, - 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 instruments 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 impedance. 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 with one of the smallest whole diamond styli in series production. Only 0.09mm in cross section and almost invisible. It's nude-mounted and square-shank to insure exact alignment with the groove. And it's set in a Beryllium cantilever that eliminates flexing.

Instead of snapping into place, this 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™
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Cartridge
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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.

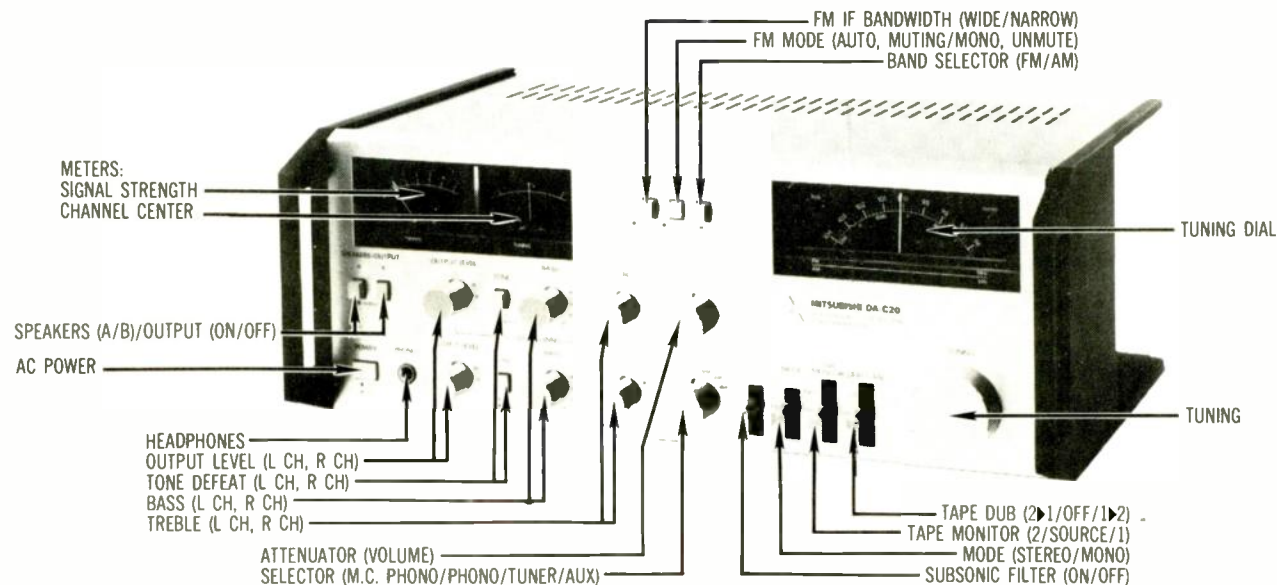
Our choice of tape for it, based both on listening and on lab measurements, is the ferrichrome; it extracts far more performance from the two-layer product than most decks do. But

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



Mitsubishi DA-C20 stereo FM/AM tuner/preamplifier in metal case. Dimensions: 16¼ by 6¾ inches (front panel), 10¾ inches deep including handles. Price: \$490. Warranty: "limited," three years parts and labor. Manufacturer: Mitsubishi Electric Corp., Japan; U.S. distributor: Melco Sales, Inc., 3030 E. Victoria St., Compton, Calif. 90221.

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		¾ dB
narrowband mode		1¼ 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%
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19-kHz pilot		-61½ dB
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38-kHz subcarrier		-64½ dB
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S/N ratio (at 65 dBf)		
stereo		68 dB
mono		75½ dB

Frequency response		
L ch	+ ¾, -½ dB, 20 Hz to 15 kHz	
R ch	+ 1, -¼ dB, 20 Hz to 15 kHz	
mono	+ 1, -½ dB, 20 Hz to 15 kHz	

Channel separation, wideband mode		
>38 dB, 125 Hz to 3 kHz		
>28 dB, 51 Hz to 15 kHz		

Channel separation, narrowband mode		
>38 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, -½ dB, 10 Hz to 100 kHz

RIAA equalization		+ ¾, -0 dB, 20 Hz to 20 kHz
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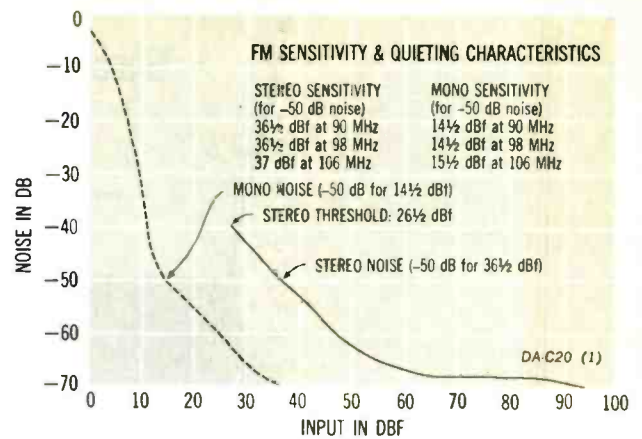
Input characteristics (re 0.5 V; noise A-weighted)		
	Sensitivity	S/N ratio
MC phono	0.052 mV	90½ dB
phono	1.3 mV	82 dB
aux	76.0 mV	>96 dB
tape 1, 2	76.0 mV	>96 dB

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
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IM distortion (at 2 volts output)		0.001%
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Subsonic filter		-3 dB at 17 Hz; 6 dB/octave
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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 slouch 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 21¼ 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: 17¾ by 14¾ inches (top plate), 5¾ inches high with cover closed; with dust cover open (45 degrees), 11½ 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 improvement 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 (ARLL 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 IHF 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 clear first. Try to move it in and out at the same time, and "in" takes prece-

dence. Even if you move the entire arm module while a record is playing, the turntable comes to the rescue, disengaging the stylus tip and returning the cartridge to rest position. Should you start the machine up without a record aboard, you'll find that the factory has installed the cartridge so that the stylus tip clears the platter mat by an amount sufficient to keep it out of trouble.

Cueing the B-790 is a delight. There is no side drift at all. At whatever point the stylus lifts clear, the servo leaves it there until commanded to recommence playing. Isolation from external shock is especially good in both horizontal and vertical planes, and the turntable can successfully track discs so warped that the attendant wow becomes the limiting factor. Another endearing feature is that the transition from 33 to 45 rpm—and vice versa—is almost instantaneous. Try as we might, we could not make this turntable falter mechanically.

And the sound is virtually as good as the unit is physically competent. All our test records were reproduced with an excellent cleanliness and clarity. Being unable to treat the cartridge and turntable as separate entities, we cannot form an opinion as to who should get the credit for what—but we can say that the combination seems eminently successful. Within its high-priced, perfectionist arena, which is admittedly a little restricted, the B-790 is unsurpassed and, in our experience, unequaled.

CIRCLE 131 ON PAGE 107

A Great Middleweight Amp



Hitachi HMA-7500 stereo power amplifier, in metal case. Dimensions: 17½ by 6½ inches (front panel), 11¾ inches deep; 1¾ inches additional clearance at sides and back for optional handles, supplied. Price: \$500. Warranty: "limited," three years parts and labor, five years on transistors. Manufacturer: Hitachi Corp., Japan; U.S. distributor: Hitachi Sales Corp. of America, 401 W. Artesia Blvd., Compton, Calif. 90220.

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—18¾ dBW (75 watts) per channel; the HMA-9500 increases this by only 1¼ 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 bet-

ter 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 ½ 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 1¾ dB, implying the ability to handle music peaks to 20½ dBW (110

Hitachi HMA-7500 Power Amplifier

Manufacturer's rated power	18% dBW (75 watts)/ch
Power output at clipping (channels driven simultaneously)	
L ch	19½ dBW (89.8 watts)
R ch	19½ dBW (89.8 watts)
Dynamic headroom	1¼ dB
Harmonic distortion (THD + N; 20 Hz to 20 kHz)	
at 18% dBW (75 watts)	<0.010%
at 10 dBW (10 watts)	<0.004%
at -1¼ dBW (0.75 watt)	<0.005%
Intermodulation distortion	
into 8 ohms	<0.005%, -8¼ to 19 dBW (0.13 to 78 W)
into 4 ohms	<0.005%, -6 to 18½ dBW (0.25 to 72 W)
into 16 ohms	<0.005%, -12¼ to 17½ dBW (0.06 to 56 W)
Frequency response	
direct coupled	+ ½, -0 dB, 6 Hz to 100 kHz
capacitor coupled	+ 0, -½ dB, 6 Hz to 100 kHz
either	± 0 dB, 20 Hz to 100 kHz
Input characteristics (re 0 dBW (1 watt); noise A-weighted)	
sensitivity	110 mV
S/N ratio	100 dB
Damping factor at 50 Hz	110

watts). The dual peak-responding meters indicate the power level in watts (and dB re 100 watts) when driving 8-ohm loads. IM measurements show that the amp supplies substantially the same power into 4-ohm loads and with only a negligible increase in distortion. The low-frequency damping factor is sufficiently high for speakers of any impedance, and the sensitivity is compatible with the drive capability of typical preamps. Residual noise is, like distortion, essentially nonexistent.

Theoretical advantages, even those verified by laboratory measurements, are of but academic interest if they are not borne out by listening quality. The HMA-7500 has an uncanny ability to unravel the details of the musical tapestry with extraordinary clarity. We can detect no audible difference between the direct and capacitor coupling modes, so we prefer the latter in the interest of protecting our speakers from DC components that might appear at the output in the event of a preamp malfunction.

Whether the clarity, brilliance, and extraordinary stereo imaging that we experience with this amplifier can be attributed to the use of power MOSFETs, we cannot say. Nor do we care. It is enough to say that the superb Hitachi HMA-7500 comes as close to perfection as any power amp we have heard.

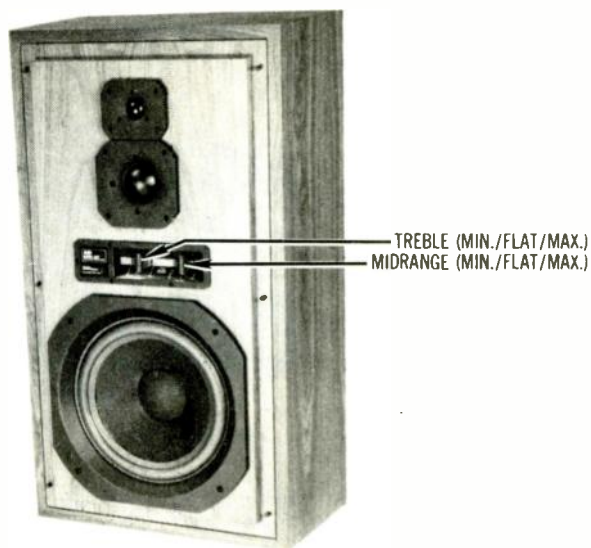
CIRCLE 134 ON PAGE 107

Avid's All-Out Assault on Diffraction

Avid M-330 speaker system in wood cabinet. Dimensions: 17 by 30¼ inches (front), 10½ inches deep. Price: \$375; optional floorstands, \$60 per pair. Warranty: "full," five years parts and labor. Manufacturer: Avid Corp., 10 Tripps Lane, E. Providence, R.I. 02914.

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. In 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)



Avid 330 Loudspeaker System

Average omnidirectional output, 250 Hz to 6 kHz
82½ dB SPL for 0 dBW (1 watt) input

Continuous on-axis output at 300 Hz
108 dB SPL for 18 dBW (63 watts) input

Pulsed output at 300 Hz
116¼ dB SPL for 26¼ dBW (475 watts) peak

"Nominal" impedance 5.7 ohms at 90 Hz

Approximate tweeter control range (re "flat")
± 2 dB, 6.5 to 13 kHz

Approximate midrange control range (re "flat")
+ 1, -2 dB, 550 Hz to 5 kHz

In a class by itself.



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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.

 **KOSS® stereophones/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 6½ 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.

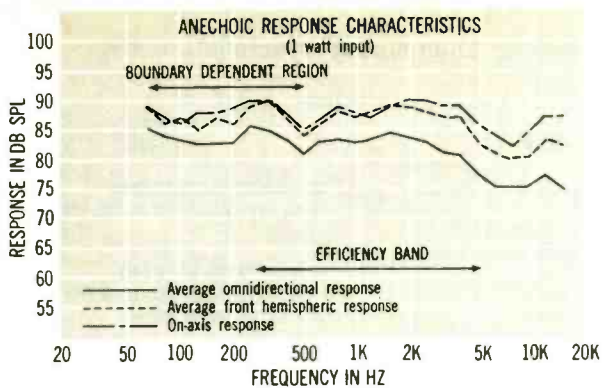
*Suggested retail price, optional with dealers. Slightly higher east of the Mississippi.



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A toll-free call to (800) 423-5244 — or from California, (800) 382-3372 — will get you the nearest Infinity dealer's name and address.

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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 modest listening 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 po-

sition for both), the average omnidirectional response is within $\pm 2\frac{1}{2}$ 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.

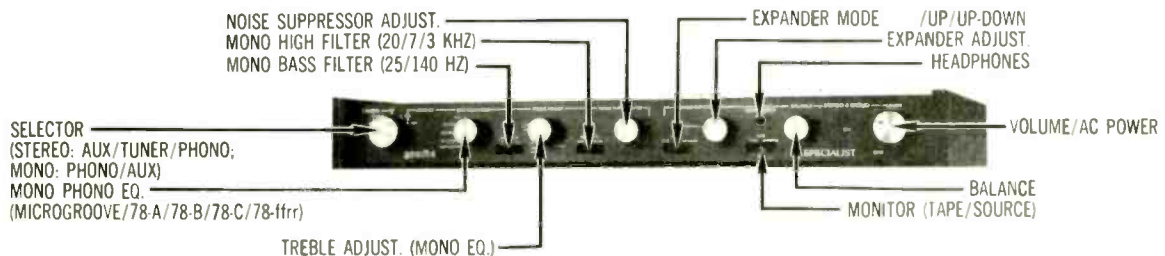
Bass attack is very tight; drums and other low-frequency transients are handled without tubbiness or overhang. We did note a slight muddiness on continuous bass tones (bass viol, cello, etc.)—evidently due to the distortion measured in the lab, since the effect depends on the listening level.

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

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. Man-

ufacturer: 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 murmurs 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 the 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 or loudness compensation. An outboard equalizer could easily be added if you miss them, but the design presupposes that you are not one to diddle—except in one respect—with 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 stultifying 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 limiter (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 a moderate ratio 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 unction for moribund 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

Source Engineering Specialist Preamp

Output at clipping (both channels driven)		
L ch		6.9 volts
R ch		7.2 volts
Frequency response*		
		$\pm 1/2$ dB, 40 Hz to 70 kHz;
		$+ 1/4, -1/4$ dB, 20 Hz to 100 kHz
RIAA equalization*		
stereo		$\pm 1/2$ dB, 50 Hz to 20 kHz;
		$+ 1/2, -2 1/2$ dB, 20 Hz to 20 kHz;
mono		± 3 dB, 25 Hz to 20 kHz
Input characteristics (re 0.5 V; noise A-weighted)**		
	Sensitivity	S/N ratio
phono	1.63 mV	64 1/2 dB
mono "microgroove"	1.45 mV	72 dB
tuner, aux	150 mV	80 1/4 dB
mono aux	157 mV	79 1/4 dB
Phono overload (clipping point)		
		66 mV at 1 kHz
THD + N (at 2 volts output)		
stereo		< 0.11%, 20 Hz to 20 kHz
mono		< 0.35%, 40 Hz to 20 kHz;
		< 1.7%, 20 Hz to 20 kHz
IM distortion (at 2 volts output)		
stereo		0.075%
mono		0.45%
25-Hz infrasonic filter		
		-3 dB at 25 Hz; 24 dB/octave
140-Hz rumble filter		
		-3 dB at 120 Hz; 24 dB/octave
3-kHz high filter		
		-3 dB at 3.4 kHz; 60 dB/octave
7-kHz high filter		
		-3 dB at 7.8 kHz; 60 dB/octave

*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.

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 DEFEAT 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 turn-overs 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 FRFR position tailored (with fixed treble EQ) to the British Decca (and,

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).

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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.

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ST430

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 prin-

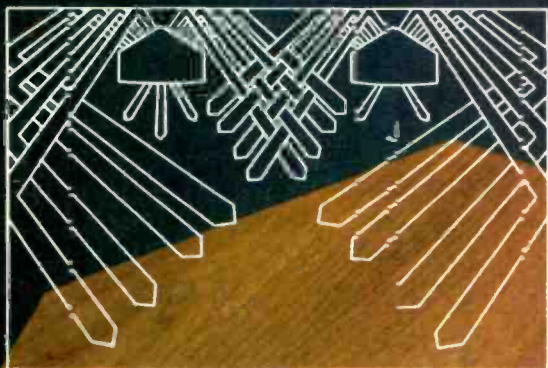
cipal effects can be isolated to specific types of frequency imbalances.

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.

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 301.



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



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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 sen-

sitivity. 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 caveats, 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 at 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 don't 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 AUX 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 136 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

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CIRCLE 32 ON PAGE 107



Too Hot to Handle

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 mix-down, 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 re-read closely your article "Tone Arm Damping" by James Brinton (July 1975). Fascinating!

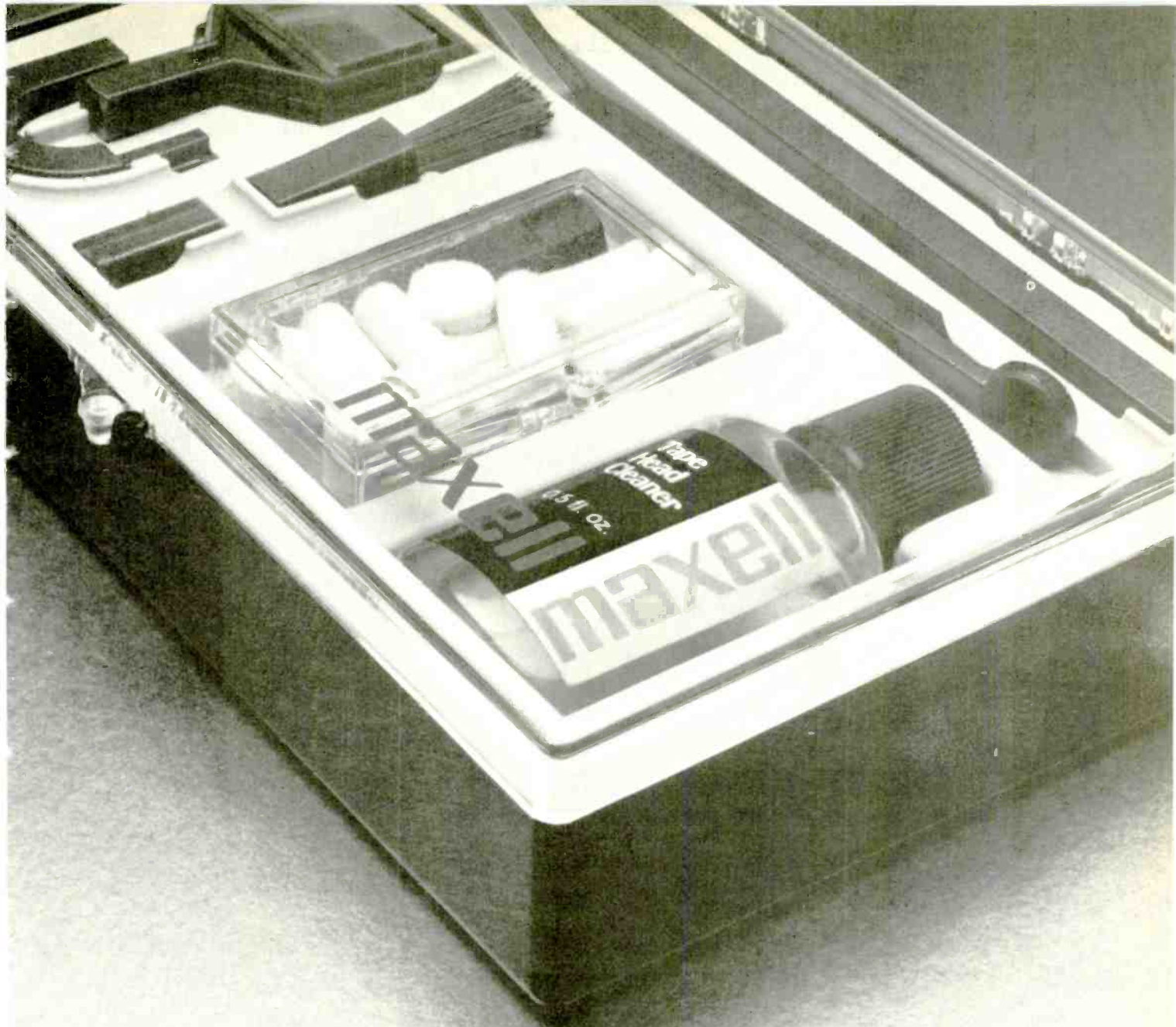
I have what I consider a crucial question to which I would appreciate simply a "yes" or "no" answer. If one were to install Mr. Brinton's device on the motorboard of an Acoustic Research turntable, would vibration from the motor be transmitted via the STP and damping paddle to the arm itself, defeating 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 $\frac{1}{4}$ and $\frac{1}{2}$ 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.



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.

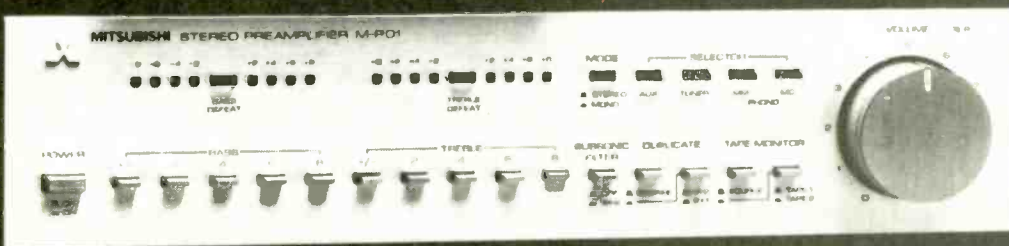
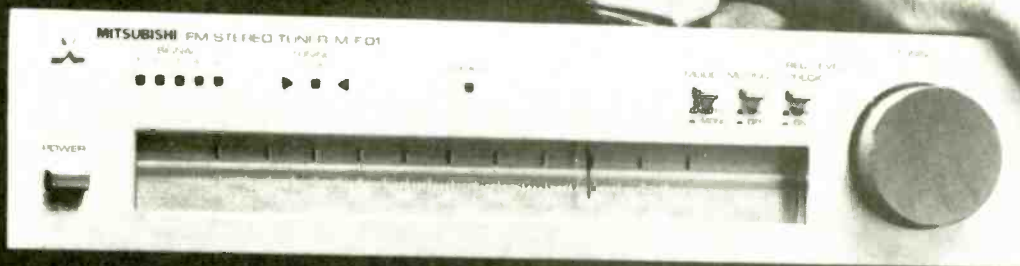
In addition to liquid head cleaner, it has special curved probes, swabs, a brush and a mirror to help you

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.

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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 100 μ V input and 0.005% THD, it obviously does the job better than components twice its size.

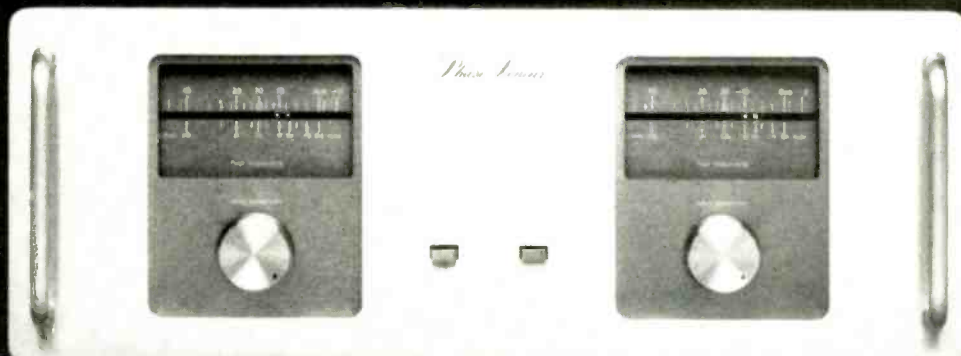
Small wonder the final touch was to finish them with Champagne Gold face plates.

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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.

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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.

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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 WATTS, 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 WATTS, 4 OHMS-550 WATTS.

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THE POWERFUL DIFFERENCE

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 these 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 converter 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

“There will be a lot of respectable studios that don't rush into digital setups.”

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 hair-line 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 Eurodpadisk, 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-



photograph by Richard Arrindell

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!

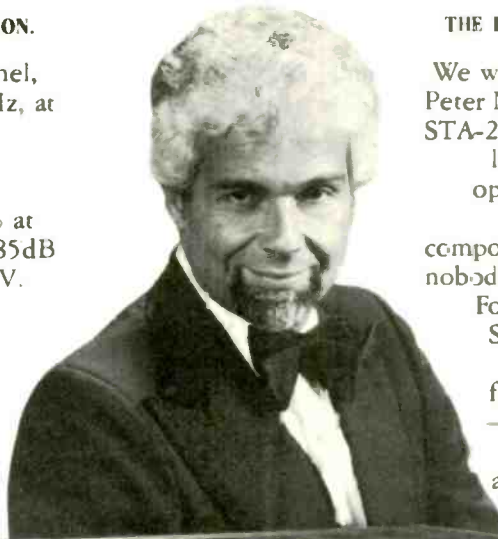
"I'll tell you what the real point is: The sonic benefits of half-speed cutting can really be heard even by people who don't use audiophile playback systems—in fact, by people who play their records on pretty crummy systems. And if they can hear the difference, that's good enough for me!" ●

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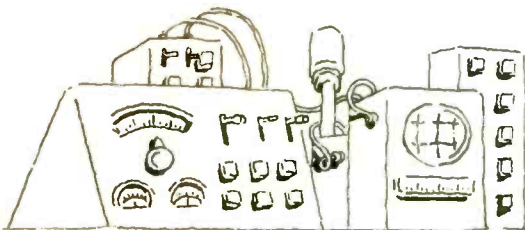
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Superdisc—Will It Fly? Maybe, but Where to?

by Kenneth Furie



Steven Guarnaccia

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 differ-

ences 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.

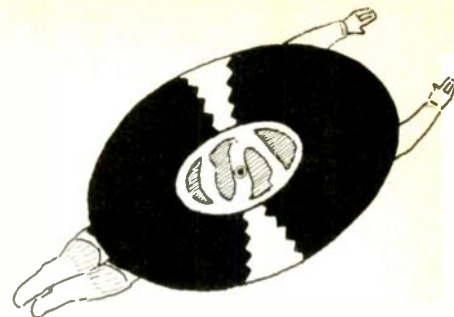
Obviously we do wade here into the swamp of taste, and the more I talk to knowledgeable record collectors and audiophiles, the more I realize how little common ground there is in the way people perceive and react to sound. I should make clear at this point that the kind of sound I'm talking about is, 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
Continued on page 68

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 exceeded 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 irri-

tating 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-

Continued on page 69

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 Stracciari, and never mind the noise component of acoustic and early electric recording. (If our technical wizards could turn Cappuccilli into Stracciari, 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—and 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 sucked 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 Furie 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 miking.

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
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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 unrestrained. 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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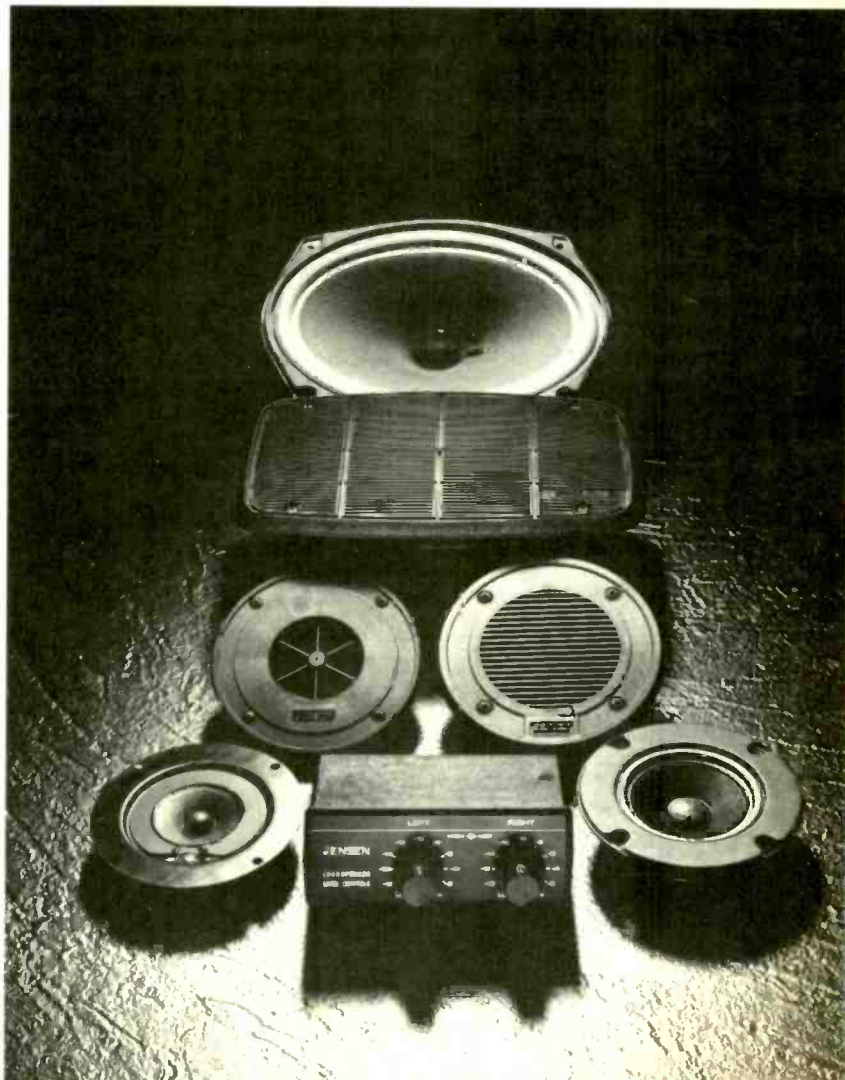
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Charles Mackerras on Handel

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 Schenectady, 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 Janáček. 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 Janáček 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 Janáček's *Káťa Kabanová* 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 common-sense 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-

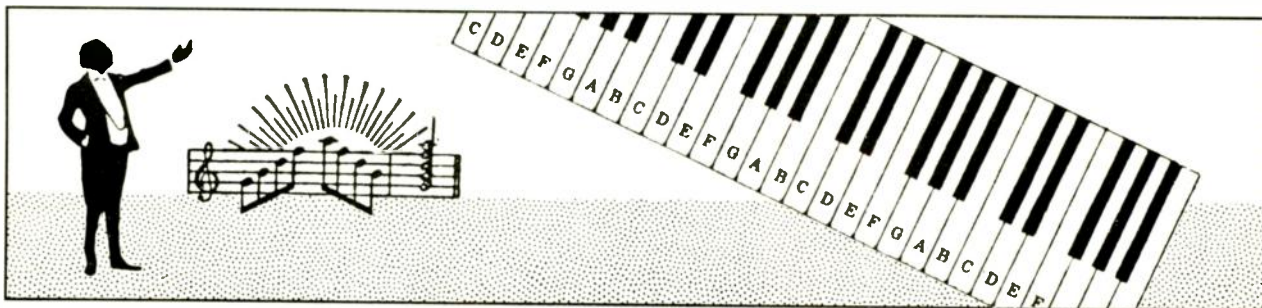
tifully drawn-out melodies with such extreme variety and, in the case of allegro melodies, with such power and such vitality. You can, if you're not careful, play Handel just as generalized, ordinary contrapuntal music, much in the way Beecham, according to Bernard Shaw's criticism, played Mozart as 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 overcharmingly 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 *appoggiatura* 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 experience 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 eras—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 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 dotting, 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?

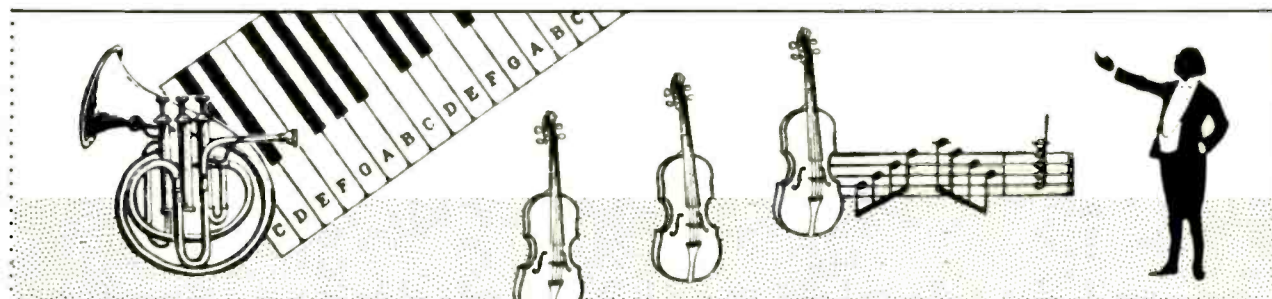
Yes. Somebody, in my view, has to edit every work by Handel in order for it to be properly done. Because there are never any expression marks, and although it is pretty certain that the big choruses of Handel were in fact sung all forte, it cannot be true that they were sung without any variety of color.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

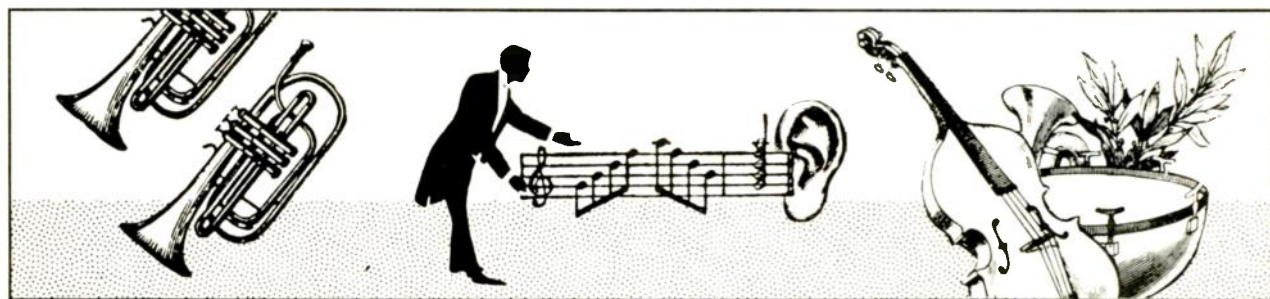
indicate exactly how many notes they want to be legato or staccato. When it *does* matter to them, they take very good care to write exactly over a staccato note, and that's why it's a good thing to be able to look at the original manuscript—you can see whether he's just dashing off a slur or whether 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



seem 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 where 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 hastily 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 mightn't fit the word.

There's a case in the $\frac{3}{4}$ 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.

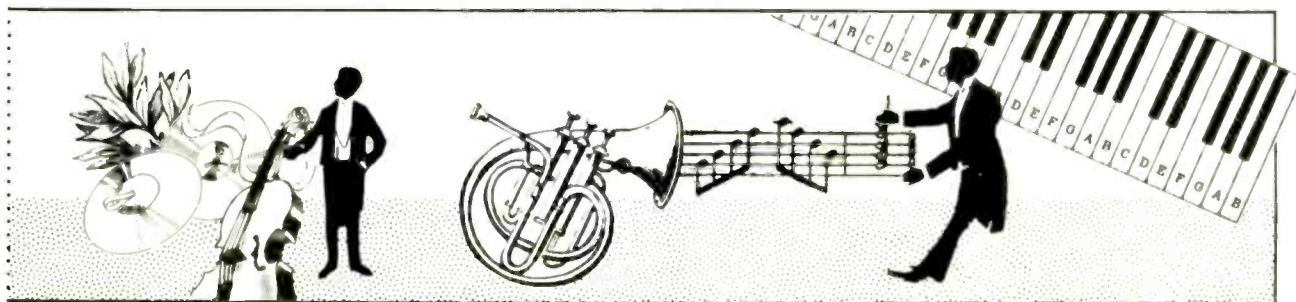
This general common-sense position contrasts with the specific argument in your article about appoggiatura ["Sense About the Appoggiatura," in the October 1963 issue of Opera]. You make the point very strongly there that all the sources say, not merely that you may perform appoggiatura.

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 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 chorus 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 élan. 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*, "Saget 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 Wilhelmj'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 Wilhelmj. The difference is the finishing of the phrases, the rounding off of phrases and the beginning of new ones. You do it 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. ■



Behind the Scenes

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 Mstislav 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 at 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 sym-

phonies, 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 Herkulessaal, 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.

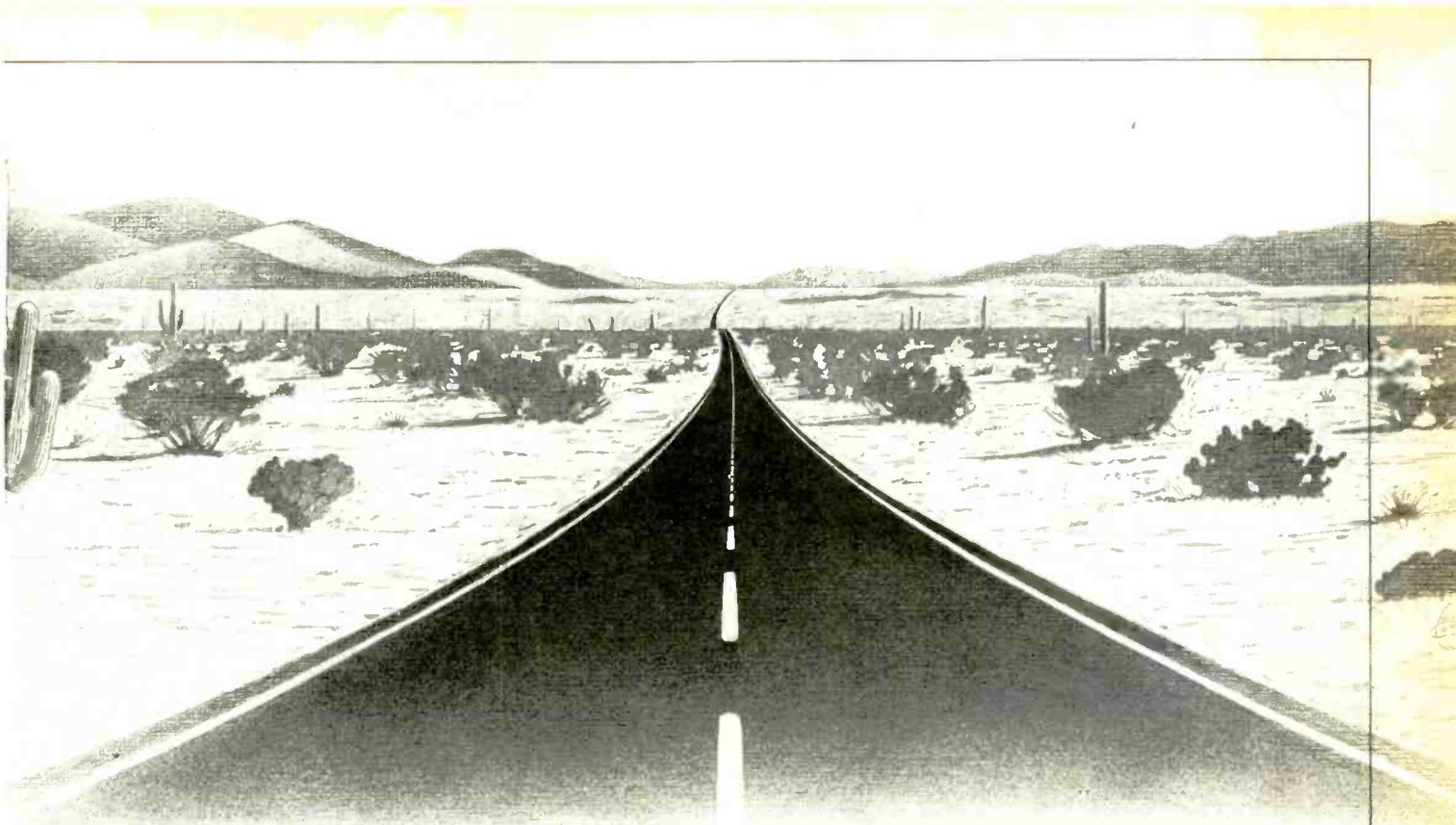
"Mottley's accomplishments include considerable linguistic facility, which helped make him EMI's man in Eastern Europe—and also equips him particularly well to talk about those countries. (Since he speaks Russian, his tales of this year's Moscow Tchaikovsky Competition include delightfully frustrating encounters with Muscovites from cab drivers to In-tourist bureaucrats.) It remains to be seen whether his Eastern European contacts will bear 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."

Giulini in Los Angeles. Carlo Maria Giulini, now firmly esconced as music director of the Los Angeles Philharmonic, has made his first recordings

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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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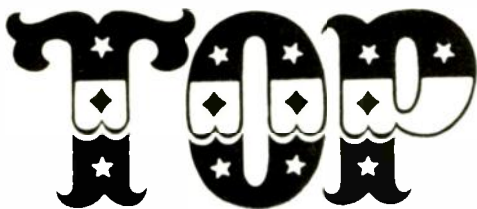
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CIRCLE 53 ON PAGE 107

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 Günther Breest, 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 Ecurie 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 *Leçons de Ténèbres*. 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 Guitton 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, Guitton, Rodde, and Nigoghossian are joined in the Charpentier *Lessons* by Helen Watts.

Janowitz' Schubert. In Deutsche Grammophon's 1971 blockbuster release 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.

ESS Wins On Campus

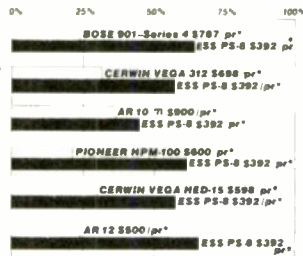


In comparative tests, students attending U.C.L.A. judge ESS superior to JBL, Bose, Pioneer, AR, and Cerwin Vega.

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ESS will be conducting the same comparison test on college campuses across the nation. Watch for the dramatic results from the University of Wisconsin at Madison to be unveiled in coming weeks. Or better yet, visit your local ESS dealer and ask him to let you take the ESS Listening Test personally. See if you, too, can't hear the difference.



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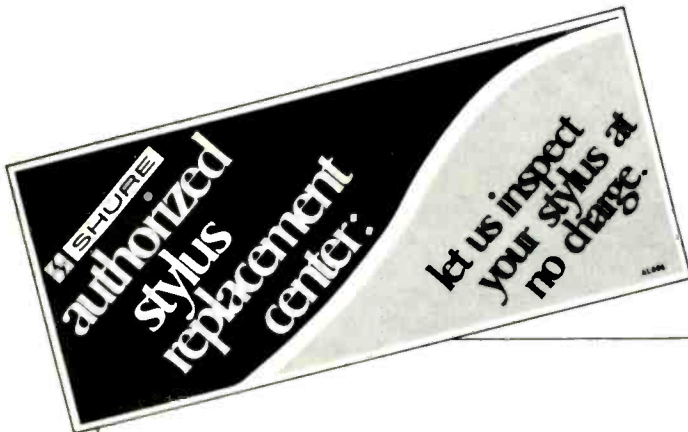
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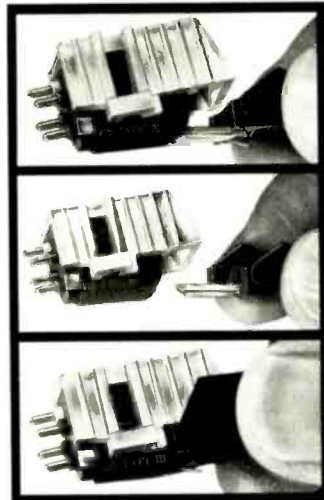


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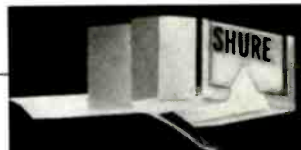
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Jan Dismas Zelenka, Baroque Eccentric

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

by R. D. Darrell



Noel Weber, Liebefeld

Alexander van Wijnkoop

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-bass player.

These quintessentially Zelenka 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 irrepressible, 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 Contento," 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 Rouch 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 Wijnkoop's violin solos, which I find tonally whistly and which sometimes lapse into Romantic-expressiveness traps that the others scrupulously avoid. But Wijnkoop, 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 ear- 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.

ZELENKÁ: *Orchestral Works*. Camerata Bern, Alexander van Wijnkoop, cond. [Gerd Ploebusch and Andreas Holschneider, prod.] ARCHIV 2710 026. \$26.94 (three discs, manual sequence). Tape: ●● 3376 014, \$26.94.

Capriccios: No. 1, in D, No. 2, in G, No. 3, in F, No. 4, in A, No. 5, in G Sinfonia in A minor, *Hipocondrie* in A Overture in F Concerto in G

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 Brüggen'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.



The Gavotte of S. 817 never seemed so irresistible, nor have I so viscerally felt the momentum of the Courante of S. 813.

That Leonhardt is able to produce such effects is a tribute to his phenomenal technical control, the finesse of which is particularly evident in his limpid rendition of the Gigue of S. 816. With *inégalité* he is rather less indulgent than some of his contemporaries, but we are reminded that under this term eighteenth-century composers and performers understood a whole repertory of rhythmic alterations, many of which were so subtle as to elude the notice of all but the most attentive listeners; the pointed use of *notes inégales* in the Gigue of S. 812 would have represented only one aspect of a rich spectrum, and Leonhardt never forgets the absolute primacy of *le bon goût* (the "good taste" so often enjoined upon eighteenth-century performers).

This basically conservative approach—which I very much admire—is carried over into the decoration of repeats; there is enough variation to provide freshness but not enough to exalt the performer at the expense of the composer. My only disappointments, in fact, are with Leonhardt's rather niggardly observance of repeats (about half of which are disregarded) and with his tendency to anticipate mordents (a perverse habit that I suspect would incur unfavorable comment for his own students).

For the *French Suites*, Leonhardt uses two lush-toned harpsichords by David Rubio "after Pascal Taskin." For his recording of the inventions and sinfonias, he has judiciously opted for the more stringent sound of a Dulcken-based Skowronek, and here his playing style is suitably adjusted to both music and instrument. After the strongly characterized performances of the suites, I was initially disappointed by the inventions, and I was well into the disc's second side before the logic of the very different approach became clear.

What Leonhardt has realized, of course, is that the sort of artifice possible in (and indeed demanded by) the suites would seem cloyingly precious in pieces that, for all their remarkable musical qualities, were intended as student exercises. It is similarly an indication of Leonhardt's commendable concern with aesthetic unity that tempos here are deliberately on the cautious side; only

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 Rübsum (whose Philips 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 even 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. Rübsum 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 specification 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: French Suites (6), S. 812–17. Gustav Leonhardt, harpsichord. ABC CLASSICS/SEON AX 67036/2, \$15.98 (two discs, manual sequence).

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

BACH: Organ Works, Vol. 1. Gustav Leonhardt, organ of the Waalse Kerk, Amsterdam. ABC CLASSICS/SEON AX 67038/2, \$15.98 (two discs).

Prelude and Fugue, in C minor, S. 546 Toccata and Fugue, in D minor S. 565. Fantasias: in C minor, S. 562; in G, S. 572. Chorale Preludes: O Lamm Gottes unschuldig, S. 618; Allein Gott in der Hoh' sei Ehr", S. 663; Jesus Christus, unser Heiland, S. 665; Jesus Christus, unser Heiland, S. 666. Wir Christenleut", S. 710; Valet will ich dir geben, S. 736. Chorale Partitas: Christ, der du bist der helle 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 repetitiousness 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) biting 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 and suaver 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 intonational 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 fermata, a device beloved of choral musicians.

In some of his concert 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 Furtwängler 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.

R **FRANCK:** Symphony in D minor. NBC Symphony Orchestra, Guido Cantelli, cond. [John Pfeiffer, prod.] RCA RED SEAL ARL 1-3005, \$7.98 [previously issued only in mono as LM 1852, recorded April 6, 1954]



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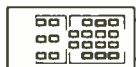
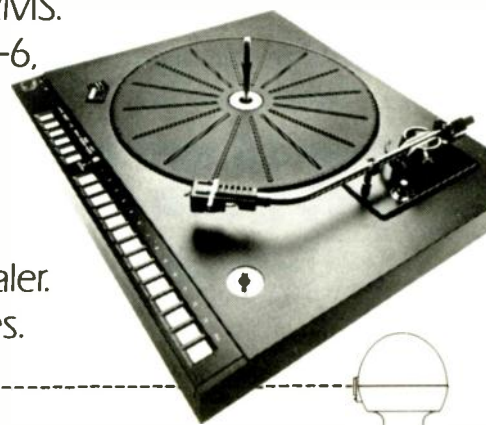
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James Levine—Brandenburgs worthy of comparison with the best

BACH: Brandenburg Concertos: No. 2, S. 1047; No. 5, S. 1050. Cantata No. 202, *Weichet nur, betrübte Schatten* (*Wedding*).^{*} Kathleen Battle, soprano. Ravinia Festival soloists, James Levine, cond. [Jay David Saks, prod.] RCA RED SEAL ARL 1-2788, \$7.98. Tape ●● ARK 1-2788, \$7.98.

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 rhythmical 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—oboist Ray Still's sensitive performances would melt the hardest of hearts. Special praise is also due Levine's virtuosic harpsichord obbligato 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 eschewed 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.

BEETHOVEN: Concerto for Violin and Orchestra, in D, Op. 61. Salvatore Accardo, violin, Leipzig Gewandhaus Orchestra. Kurt

Masur, cond. PHILIPS 9500 407 \$8.98 Tape ●● 7300 615, \$8.95

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 patriot—the sound he produces is vibrantly pure, its lean intensity almost verging on the ascetic. His phrasing, too, points in that direction—swift, incisive, rubato kept economical and unobtrusive—and the classical manner is further reflected in the choice of Joachim's 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 inconsistency: Tutti's 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 records slightly whenever the violin enters—although for some reason the crucial drumbeats are heard more prominently at the beginning of the

Explanation of symbols

Classical

- B** Budget
- H** Historical
- R** Reissue

Recorded tape:

- Open Reel
- 8-Track Cartridge
- Cassette

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, August 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 (tempos here are of the golden mean). H.G.

BEETHOVEN: Symphonies: No. 4, in B flat, Op. 60; No. 5, in C minor, Op. 67.* Overtures: Egmont, Op. 84; Consecration of the House, Op. 124.* Royal Philharmonic Orchestra* and London Symphony Orchestra*, Antal Dorati, cond. MERCURY SRI 75124 (Opp. 60, 84) and 75125 (Opp. 67, 124), \$7.98 each [*from SR 90317, 1961].

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 sentimentalized. 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* and *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

Concerto); Antony Pay, clarinet (in Op. 5); Ensemble InterContemporain, Pierre Boulez, cond. (in the Chamber Concerto). [Günther 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 Gavrillov 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 overside 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 ORS 73125), but if you want the best current Chamber Concerto, the rest of this DG record is also good value. D.H.

Critics' Choice

The most noteworthy releases reviewed recently

BARTÓK, STRAVINSKY: Two-Piano Works. Kontarskys. DG 2530 964, Nov.
BEETHOVEN: Piano Sonatas Nos. 28–32. Pollini. DG 2709 072 (3), Sonatas Nos. 9, 10, 18. Hungerford. VANGUARD VSD 71252, Feb.
BOYCE: Symphonies (8). Marriner. ARGO ZRG 874, Jan.
BRUCKNER: Symphony No. 5. Karajan. DG 2707 101 (2), Jan.
DVOŘÁK: Cello Concerto. Perényi, Oberfrank. HUNGAROTON SLPX 11866, Feb.
HAYDN: Il Mondo della luna. Auger, Alva, Dorati. PHILIPS 6769 003 (4), Dec.
LECLAIR: Violin Concertos. Schröder. TELEFUNKEN 6.42180, Jan.
MAHLER: Symphony No. 4. Von Stade, Abbado. DG 2530 966, Jan.
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.
MOZART: Piano Sonatas, K. 280, 281, 311, 330. Zimerman. DG 2531 052, Jan.
PUCCINI: Madama Butterfly. Scotto, Domingo, Maazel. COLUMBIA M3 35181 (3), Feb.
PURCELL: Dido and Aeneas. Troyanos, Stilwell, Leppard. RCA ARL 1-3021, Dec.
STRAUSS, J. (arr. Dorati): Graduation Ball. Dorati. LONDON CS 7086, Jan.
STRAVINSKY: Pulcinella Suite, et al. Boulez. COLUMBIA M 35105, Nov.
TELEMANN: Works for Oboe. Holliger, et al. PHILIPS 9500 441. Works for Winds. Baron, Roseman, Weisberg, et al. NONESUCH H 71352, Jan.
VERDI: Otello. Scotto, Domingo, Milnes, Levine. RCA CRL 3-2951 (3), Feb.
VIVALDI: Choral Works. Vols. 1–2. Negri. PHILIPS 6700 116 (2), Nov.
WILLIAMSON: Vision of Christ-Phoenix; Symphony. Wicks. CHALFONT C77 015, Jan.
IDIL BIRET: Piano Recital. FINNADAR SR 125 (direct-to-disc), Dec.
NIGEL ROGERS: Airs de Cour: French Drinking Songs. PETERS PLE 050, Dec.
RUDOLF SERKIN: On Television (Piano Recital). COLUMBIA M2 34596 (2), Nov.
MARTIAL SINGER: French Song Recital. 1750 ARCH RECORDS 1766, Nov.
SPANISH CATHEDRAL MUSIC IN THE GOLDEN AGE. TELEFUNKEN 36.35371 (3), Dec.
FELLINI'S CASANOVA. Original film soundtrack recording. CAM SAG 9075, Jan.

BERNSTEIN: Songfest. Clamma Dale, soprano; Rosalind Elias and Nancy Williams, mezzos; Neil Rosenshein, tenor; John Rardon, baritone; Donald Gramm, bass-baritone; National Symphony Orchestra, Leonard Bernstein, cond. [Hans Weber and Günther Breest, prod.] DEUTSCHE GRAMMOPHON 2531 044, \$8.98.

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 aborning. It started out as a Bicentennial commission, but he could not complete it on 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 Opera*, *Mortal Melodies*, *A Secular Service*, and *Ballet 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



Elly Ameling and Dalton Baldwin—A thrice welcome Brahms recital

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 undertaking, 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 Burgos, Walt Whitman, Langston Hughes, June Jordan, Anne Bradstreet, Gertrude Stein, e. e. 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 sneakily 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—Whitman'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, puzzling.

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. I.L.

BOCCHERINI: *Quartets for Strings (6), Op. 32. Quartetto Esterházy. TELEFUNKEN 26.35337, \$17.96 (two discs, manual sequence).*

The Boccherini revival seems to be picking up. In October 1978, I reviewed two batches of string quintets, 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 ancestors. He hit upon the idea of abandoning the continuo and making the bass an equal

partner 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.

This music requires a performing style that has elegance, wit, piquancy, and suavity. 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 Tomasini and the cellist Anton Kraft, would approve of it. The first violin's tone is unattractive, often glassy, and since his part has the leading role, this affects the entire ensemble. Boccherini was very conscious 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 bereft of any sensuous appeal. The first violin has the bad habit of squeezing out a crescendo 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-erodow classical music 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 instruments" (by about 1800 practically every string instrument had been modernized; unless a major regressive operation is performed, an instrument cannot be called original), we are left with the ensemble's claim of following the performance techniques of old.

What were those techniques? Nearly everything we do today in string playing was known and practiced long before Boccherini's time; the only advantage we have is the Tourte bow. Leopold Mozart, in his famous violin tutor of 1756, deals with a modern style of violin playing, and every early theoretician and critic insisted on a full, rounded, warm string tone (Geminiani wrote an entire book on the vibrato)—not the shallow, cold, unresonant tone that the Esterházy's and similarly disposed ensembles inflict upon us.

Did the members of the quartet read Ludwig Finscher's thoughtful notes? This distinguished author of the history of the string quartet speaks not of historical minutiae, but of unweary 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.

BRAHMS: *Songs. Elly Ameling, soprano; Dalton Baldwin, piano. PHILIPS 9500 398, \$8.98. Spanisches Lied, Op. 6, No. 1; Der Frühling, Op. 6, No. 2; Die Trauernde, Op. 7, No. 5; Von ewiger Liebe, Op. 43, No. 1; Botschaft, Op. 47, No. 1; Wiegenlied, Op. 49, No. 4; Von waldbekränzter Höhe, Op. 57, No. 1; Agnes, Op. 59, No. 5; Dein blaues Auge, Op. 59, No. 8; Heimweh, Op. 63.*

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No. 8; Des Liebsten Schwur, Op. 69, No. 4; In die Beeren, Op. 84, No. 3; Vergebliches Ständchen, Op. 84, No. 4; Der Jäger, Op. 95, No. 4; Komm bald, Op. 97, No. 5; Immer leiser wird mein Schlummer, Op. 105, No. 2; Das Mädchen spricht, Op. 107, No. 3. Volksliederlieder: No. 4, Sandmännchen.

This disc is thrice welcome: It adds to the number of Brahms songs in the catalog; it is excellent in quality; and it helps to make up for the delightful Brahms program Ely Ameling recorded for BASF/Harmonia Mundi (BASF KHB 21021, August 1973), which was quickly swept out of SCHWANN with the demise of the domestic BASF label. In the latter connection it should be said that there is hardly any duplication of material in the two recitals—only "Das Mädchen spricht," "Vergebliches Ständchen," and "Von ewiger Liebe"—and that the earlier disc is therefore well worth searching out. [A reissue by German Harmonia Mundi seems likely.—Ed.]

Both recordings show highly proficient vocalism and engaging interpretive skill. But as a comparison between them reveals, Ameling's voice has darkened perceptibly during the past few years. While this development enables her to give added meaning to the more impassioned songs like "Von ewiger Liebe," her account of which is admirable, it is less helpful in lighter, more ebullient material like "Das Mädchen spricht," in which her voice does not sound ideally free or pure. Furthermore, some of the songs, especially "Von waldbekränzten 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 interpretive 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 desire to be gone from home. Moreover, because she clearly differentiates 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," the familiar "Wiegenlied," 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—"bis," for example, coming out "bus" and "thrush," "trush." D.S.H.

BRUCH: Concertos for Violin and Orchestra: No. 1, in G minor, Op. 26; No. 2, in D minor, Op. 44. Salvatore Accardo, violin; Leipzig Gewandhaus Orchestra, Kurt Masur, cond. PHILIPS 9500 422, \$8.98. Tape: ●● 7300 640, \$8.95.

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

Ang. S 36920

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 ear 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 tuttis. 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 undrenched, Romantic performances of these works, but I find the mixture of somber weight and knife-edged volatility fascinating. Even though the Menuhin/Boulton 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 offing.) H.G.

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

Te Deum (with Elsa Saque and Joana Silva, sopranos; John Williams, countertenor; Fernando Serafim, tenor; Philippe Huttenlocher, baritone; José Oliveira Lopes, bass; Antoine Sibertin-Blanc, organ). Salve Regina. Tebrae factae sunt (with Huttenlocher). In nativitate Domini. Nuit. Seniores populi (with Williams).

LULLY: Te Deum. Jennifer Smith and Francine Bessac, sopranos; Zeger Vandersteene, countertenor; Louis Devos, tenor; Philippe Huttenlocher, baritone; "A Choeur Joie" Vocal Ensemble, Jean-François Paillard Orchestra, Jean-François Paillard, cond. [Pierre Lavoix, prod.] ERATO 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 fact 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 ordinary recited Mass, though, the services attended by the king were enriched by the insertion of elaborate motets with instrumental accompaniment, and the *Te Deum* settings included on these two Erato discs are representative of the music that came to be associated with the Messe basse solennelle.

Although the interplay of soloists, choir(s), and orchestra suggests superficial comparison with the more elaborate verse anthems and canticles of the English Resto-

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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 touches 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. In *Salve Regina*, 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 countertenor John Williams (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 Serafim is all but unbearable. I confess, too, that the brash Maurice André-style trumpet sound—quite aside from its inauthenticity—strikes my ears as manifestly ugly, and I found the inappropriate inverted mordents 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.

CHOPIN: Scherzos (4); Prelude in C sharp minor, Op. 45; *Eccossaises* (3), Op. 72. Nelson Freire, piano. TELEFUNKEN 6.42034, \$8.98. Tape ●● 4.42034, \$8.98.

Scherzos: No. 1, in B minor, Op. 20; No. 2, in B flat minor, Op. 31; No. 3, in C sharp minor, Op. 39; No. 4, in E, Op. 54.

Comparisons—Scherzos:

Rubinstein
Barbosa
Szidon

RCA LSC 2368
Conn. CSQ 2071
DG 2536378

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 (6.41847, 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



Arturo Benedetti Michelangeli
A very special Debussy release

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 *Eccossaises* (of ballet fame) with equal refinement. H.G.

DEBUSSY: Preludes, Book I. Arturo Benedetti Michelangeli, piano [Cord Garben and Karl Faust, prod.] DEUTSCHE GRAMMOPHON 2531 200, \$8.98. Tape ●● 3301 200, \$8.98.

Some of Michelangeli's recent recordings—for example, his pair of Haydn concertos (Angel S 37136, February 1976) and Schumann's *Carnaval* (Angel S 37137, 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 "*Dansesuses 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 la plaine*" and "*Ce qu'a vu le vent de l'ouest*," both of which gather almost menacing velocity, and in "*La Cathédrale engloutie*," which sounds positively gothic in his measured pacing and huge dynamic scale. (Un-

like 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 culled from Debussy's Welte piano-roll recording of the piece, but fearlessly expands at a solemn tread.)

Perhaps Michelangeli's angular, dynamic musical personality is less admisible than some of the gentler things Debussy asks for. The middle section of "*La Danse de Puck*" is rather poker-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 regret" asked for in "*Des pas sur la neige*." But other details, even novel ones, 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.

DOHNÁNYI: Quintet for Piano and Strings, No. 1, in C minor, Op. 1; Serenade for String Trio, in C, Op. 10, New London Quintet. HNH RECORDS 4072, \$7.98.

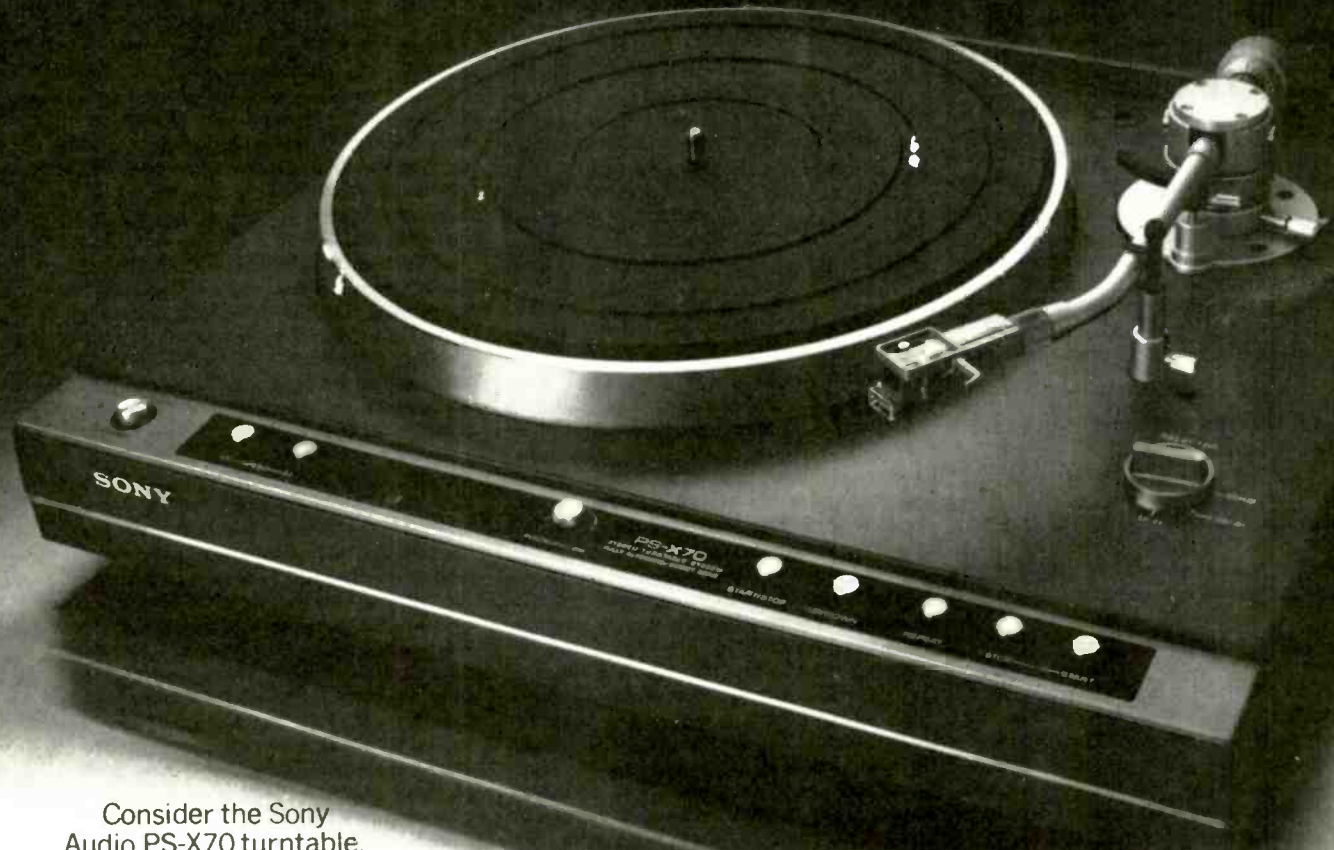
DOHNÁNYI: Quintet for Piano and Strings, No. 2, in E flat minor, Op. 26; Sextet for Clarinet, Horn, Piano, and Strings, in C, Op. 37. Erno Szegedi, piano; Béla Kovács, clarinet; Ferenc Tarjányi, horn; Tátrai Quartet. [Zoltán Hézszer, prod.] HUNGAROTON SLPX 11624, \$7.98.

DOHNÁNYI: Quartets for Strings: No. 1, in A, Op. 7; No. 2, in D flat, Op. 15, No. 2. Kodály Quartet. [Attila Apro, prod.] HUNGAROTON SLPX 11853, \$7.98.

Dohnányi composed his C minor Piano Quintet, Op. 1, in 1896, 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 that 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)—unlike 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 nineteenth-century musical trend), I am all 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 quartets, 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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mantics 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 rehabilitée), 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 overside rendition of the better-known string-trio serenade, though, is on the genteel side; there is nothing actively wrong with it, but I prefer the biting incision of the classic Heifetz/Primrose/Feuermann recording. Both Hungaroton discs offer committed interpretations in sound of purposeful closeness and astringency—particularly high spots are the dark, sultry sound of Béla 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.C.

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

HOLST: The Planets, Op. 32. Richard Rodney Bennett and Susan Bradshaw, pianos. [Brian Culverhouse, prod.] DELOS DEL 25442, \$7.98.

This two-piano Planets is Holst's own arrangement, and there is ample precedent for such "black and white" reductions, which facilitated the study and dissemination of orchestral scores in the pretape era. Even devoted Holstians, however, must hesitate to claim that this version will prove particularly rewarding except to instrumentation students and historians.

British composer/pianist Richard Rodney Bennett and partner Susan Bradshaw take their task seriously, and their rather too carefully articulated, hard-toned playing is powerfully recorded. R.D.D.

HUMPERDINCK: Hänsel und Gretel.

Gretel	Lucia Popp (s)
The Sandman	Norma Burrowes (s)
The Dew Fairy	Edita Gruberová (s)
The Witch	Anny Schlemm (s)
Hänsel	Brigitte Fassbaender (ms)
The Mother	Julia Hamari (ms)
The Father	Walter Berry (b)

Vienna Boys Choir, Vienna Philharmonic Orchestra, Georg Solti, cond. [Christopher Raeburn, prod.] LONDON OSA 12112, \$15.96 (two discs, automatic sequence) Tape: ●● OSA5 12112, \$15.95.

Comparisons:
 Eichhorn/Bavarian Radio RCA ARL 2-0637
 Cluytens/Vienna Phil. Ang SBL 3648
 Walberg/Cologne EMI (Germany) 1C 163 28972/30
 Bernardi/Sadler's Wells EMI(U.K.) SXDW 3023

On paper this project looked interesting; Hänsel cried out for the treatment Decca/London has lavished on its Vienna Wagner recordings. It still does.

Not that the performance is contemptible. It's perfectly professional, even if Solti seems to be sleepwalking through the



Ernst von Dohnányi
Music too attractive to be neglected

score and the orchestra slumbering with him. The Vienna Philharmonic may be the ideal orchestra for Hänsel, 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 "Hexenritt" is innocent of either menace or exhilaration. 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)—Mario 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 Eichhorn (Eurodisc/RCA) and the Cologne Gürzenich Orchestra—in SQ quad—under Heinz Wallberg (German EMI). (The Gürzenich Orchestra will be heard again in Columbia'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 grooves, 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/RCA's Dew Fairy) is a thoroughly winning Gretel, and the weight of Brigitte Fassbaender's mezzo, a darker instrument than is customary for Hänsel, 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/RCA'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 blowsy results. The casting of Anny 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/RCA) has shown that the Witch can have a grand time while singing rather than mangling the vocal line. Norma Burrowes and Edita Gruberová perform their spritely duties adequately.

Even with Columbia yet to be heard from, it's hard to see where this Hänsel 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 Brünnhilde and Wotan, Rita Hunter and Raimund Herincx, 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: quad 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/RCA 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 Hänsel and Gretel, Irmgard Seefried and Anneliese Rothenberger. For that matter, now that the much-admired Angel mono recording under Herbert von Karajan, in which Seefried partnered Elisabeth Schwarzkopf, has been reissued in England, it will 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 11 1995, \$8.98 (SQ-encoded disc).

Comparison:
 Janáček Qt Supr. SUAST 50556

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 Tolstói's novelette *The Kreutzer Sonata*; No. 2, called *Intimate Pages*, is an apotheosis of Janáček's late-life affair with the young Kamila Stösslová.

In its remake of this coupling, the Smetana Quartet uses new editions published in the mid-Seventies, prepared by Smetana violist Milan Skampa. Skampa has 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

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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 used 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 tempos: 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 less 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 (Smetana first violinist Jiří Novák has occasional pitch problems) and firmer in rhythm. The Smetana 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). A.C.

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

MOZART: Symphonies Nos. 32, 35–36, 38–41. Berlin Philharmonic Orchestra, Herbert von Karajan, cond. [Michel Glotz, Cord Garben, Hans Hirsch, and Magdalene Padberg, prod.] DEUTSCHE GRAMMOPHON 2709 080, \$26.94 (three discs, manual sequence). Tape: ●● 3371 042, \$26.94.

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 (*Linz*); No. 37, in G, 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 (S 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 *Haffner*). 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 most certainly is.

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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CIRCLE 55 ON PAGE 107

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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 pudgy, tubby sound with little clarity or variety of color. This means that the listener gets none of the feeling of wind band competing 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 Paillard's. He takes slow tempos—almost always slower than Karajan's, except in the occasional minuet. He seems to fall into ritards, instead 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 Paillard 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: Paillard's treatments sound apathetic.

To fill up his three discs, Paillard has included what is called the "Symphony No. 37," of which Mozart of course wrote only the prefatory Adagio—the rest is by Michael Haydn. It's an interesting oddity, but RCA'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	Montserrat Caballé (S)
Liu	Mirella Freni (S)
Calaf	José Carreras (T)
Pong	Riccardo Cassinelli (T)
Pang	Remy Courazza (T)
Emperor Altoun	Michel Sénéchal (T)
Prince of Persia	Alberto Cossotto (T)
Ping	Vicente Sardinero (B)
A Mandarin	Eduard Tumegeyanian (B)
Timur	Paul Plishka (BS)

Maitrise de la Cathédrale, Opera du Rhin Chorus, Strasbourg Philharmonic Orchestra, Alain Lombard, cond [David Mottley, prod] ANGEL SCLX 3857, \$24 98 (three SO-encoded discs, automatic sequence) Tape ●● 4X3X 3857, \$24 98

Comparisons

Callas, Serafin	EMI (Italy) 3C 163 00969 71
Borch, Tebaldi, Del Monaco, Erede	Lon OSA 1308
Nilsson, Tebaldi, Bjoerling, Leinsdorf	RCA LSC 6149
Nilsson, Scotto, Corelli, M-Pradelli	Ang SCL 3671
Sutherland, Caballé, Pavarotti, Mehta	Lon OSA 1310b

The first thing to note about this recording is the remarkable sound, striking evidence of the turnabout in Angel disc quality. Textures have the vividness, color, and transparency characteristic of producer David Mottley'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



Reg. Wisnien/Angel

José Carreras
A lyric Calaf beautifully sung

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, ascolta" is answered by an equally lovely "Non piangere, Liu" from José Carreras. Carreras is of course one of those "lyric Calafs" spawned by the phonograph, but for two acts, at least, he almost made me forget the greatest of them, Jussi Bjoerling. For some reason, both Carreras and Freni are less good in Act III; both "Nessun dorma" and "Tu che di gel sei cinta" are distinctly disappointing after the Act I arias.

Paul Plishka does everything one can ask of a Timur, and the supporting cast, although not helped by its French tinge, is okay. I had hoped for more than adequacy from Vicente Sardinero, but he falls into the anonymous middle rank of Pings. The trio of ministers as a whole is somewhat below average, but then, none of the recordings seems to me to make much of their big scene—given uncut here, as in the Mehta/London recording.

And what of the *Turandot*? La Caballe certainly offers 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 brief, especially if you exclude (as I try my damndest to) the ghastly final duet with which Altoun "completed" the opera—that only a singer of some special individuality can have much impact. We've had two such *Turandots* on record: Maria Callas (EMI) for the illusion of dramatic interest she creates, and Birgit Nilsson (RCA 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, neither would I part with either of Nilsson's Calafs—Bjoerling

(RCA) and Franco Corelli (Angel). Unlike Bjoerling 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 the RCA set already on the must-keep list, 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, Leone Magiera, piano, La Scala Polyphonic Chorus, Romano Gandolfi, cond [Pasquale Soggiu, prod] CIME ARS NOVA C3S 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 Scotti, Fiorenza Cossotto, Alfredo Kraus, and Ivo Vinco as soloists)—the same notes, but an entirely different piece of music. Not even the unstylishly Teutonic Eurodisc recording (recently issued in this country by RCA, ARL 2-2626) succeeded so well as this new recording at missing the musical point.

The first letdown is the plodding, shapeless introduction (the inauthentic single-piano reduction is used, rather than the two pianos Rossini asked for). Then the chorus enters. Can this really be an arm of the great La Scala chorus, one of the glories of the world of opera—this mushy, imprecise tone, this scrappy pitching, this utter absence of force and impact? They are recorded from a considerable distance, which certainly doesn't help, but even under the scrutiny of headphones this sounds like a bunch of talented sight-readers at a first reading rehearsal.

The soloists don't improve things. Ruggero Raimondi's unpleasantly nasal tone smears the lines with clumsy portamento, Lucia Valentini-Terrani can't seem to focus her tone or shape her phrases, Luciano Pavarotti's upper range is in rough, throaty condition, and Mirella Freni, though in pretty fair voice, doesn't have any sense of the destination of her lines. The piano playing throughout is dull and mechanical. Nobody appears to have the vaguest idea of what the piece is about.

In the circumstances, it seems pointless to quibble about musicological niceties, though the liner note, a little awkwardly translated into English, gives a fairly de-

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tailed account of the work's vicissitudes, from which some of the recording's derelictions can be inferred. The recording job is clumsy too, ill balanced and amateurish.

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 Rossini's endearing, heartfelt, and extremely well-crafted swan song until something better comes along. D.H.

SCHUMANN: Concerto for Piano and Orchestra, in A minor, Op. 54; Introduction and Allegro, in G, Op. 92; Introduction and Allegro, in D minor, Op. 134. Vladimir Ashkenazy, piano; London Symphony Orchestra, Uri Segal (in Opp. 54, 134) and Vladimir Ashkenazy (in Op. 92), cond. [Christopher Raeburn, prod.] LONDON CS 7082, \$7.98. Tape •• CS5 7082, \$7.95.

This is the most recommendable of the recordings we have 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 kineticism and poetic ardor. Everything sings, but there is a touch of impetuous vehemence and, in the background, a feeling of structure and classical reserve; as with Serkin, the two polarities exert equal pull and thereby keep the musical course in balance. In the concerto, which I imagine Ashkenazy has played more often, he is more *affettuoso* than such classically oriented accounts as the Serkin/Ormandy, the Rubinstein/Giulini, and the two Lipatti recordings. Some may find his first movement in particular too teased 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 tuttis 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. H.G.

VIVALDI: Tito Manlio.

Lucio Manlio Margaret Marshall (s)
Rose Wagemann (ms)
Servilia Julia Hamari (ms)
Decio Norma Lerer (ms)
Vitellia Birgit Finnila (a)
Geminio Claes H. Ahnsjo (t)
Lindo Domenico Trimarchi (b)
Tito Manlio Giancarlo Luccardi (bs)

Jeffrey Tate, harpsichord; Berlin Radio Chorus, Berlin Chamber Orchestra. Vittorio Negri, cond. PHILLIPS 6769 004, \$44.90 (five discs, manual sequence). Tape •• 7699 079, \$26.95 (three cassettes).

Here's a surprise: a second Vivaldi opera following last month's *Orlando furioso* from Erato/RCA/Musical Heritage Society—and in the offing is *L'Olimpiade* from Hungaroton.

Tito Manlio is extant in two manuscript scores. One is entirely in Vivaldi's own hand; the other, a professional fair copy, contains the composer's second thoughts and additions as well as corrections. Vivaldi stated that the opera was composed in five days, which is probably a fib: The manuscript does show haste (his writing was usually very neat), and the score contains many parodies and borrowings, a standard operating procedure in his time, but the music is almost uniformly on a very high plane.

For the recording a "revision" was made by Franz Giegling. While the term makes one uncomfortable in view of what Casella did to Vivaldi, or Malipiero to Monteverdi, Giegling is 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 *Tito Manlio* 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, flute, 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 ritornels are meaty and usually carry on thematically after the voice enters.

Almost all the arias—and there are forty-one 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 concertante 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 coro 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 predominate because three male characters—Tito's son Manlio, the "Latin knight" Lucio, and the military commander

Continued on page 109



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Mining America's Gold: Vintage Musical Theater Albums

by Deena Rosenberg



George Gershwin

Photo courtesy of Edward Jablonski

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

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.

it—such people as Edward Jablonski (specializing in Gershwin, Arlen, and Berlin), Robert Kimball (Porter and Eubie 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 productive 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 peppy 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 Natur'llly") 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, 1909-39." (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 1919.)

In evaluating Gershwin's achievements,

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 ballets, 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 *Oh, Kay!* (1926) are already out, *Funny Face* (1927) is due 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 Adele, whose saucy flapper's voice complements his style nicely.

Similarly, the Gershwins tailored *Oh, Kay!* to the unique talents of Gertrude Lawrence, her "ingratiating charm and piquant sparkling spontaneity," as one '20s critic put it. The score ranged from the wistful "Someone to Watch over Me" to the slightly risqué "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 orchestras and vocalists, and twenty Gershwin songs from eight shows are 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 cuts can also be found on "Gershwin Plays Gershwin," RCA Victrola AVMI-1740, along with four numbers from the musical *Tip-Toes*.)

The song 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 Zes 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 figurations 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 "thumping his left hand onto a blurred group of notes from 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 *Souvenirs 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 the current 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 BMC 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 alter-



Fats Waller

nating with middle register chords, brilliantly displayed in many pieces in this set, including "The Alligator Crawl" and "Smashing Thirds") and his dazzling use of chordal sequences (in the "F flat Blues," among others). On most of the tracks, including "Ain't Misbehavin'" and "Valentine Stomp," 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 stogy but effective public airing of a grievance; when Waller sings it on the BMC album, the wrier 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.

Gershwin learned from Waller, and both men learned from Eubie Blake. Blake, a crackerjack 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 sang 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 revue *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 *Girl 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 an artistic community, getting together 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 eighty-two, he carries on—he will 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 unoriginal 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 (BMC 60 5256; 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* (BMC 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

Lady Be Good! (1924), by George and Ira Gershwin (SC R 008; with notes by Edward Jablonski). Original cast members Fred and Adele Astaire sing "Fascinating Rhythm" and other songs; George Gershwin, piano.

Oh, Kay! (1926), by George and Ira Gershwin (SC R 011; notes by Wayne Shirley). Gertrude Lawrence, star of the original cast, is featured, along with duo pianists Ohman and Arden, and Gershwin.

Ziegfeld Follies of 1919, by Irving Berlin, et al. (SC R 009; notes by Stanley Green). Eddie Cantor, others.

Souvenirs of Hot Chocolates (1929), by Fats Waller, et al. (SC R 012; notes by Dan Morgenstern). Performers in this revue include Waller and Louis Armstrong.

Whoopee (1928), by Gus Kahn and Walter Donaldson (SC R 013). Eddie Cantor, others.

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 90¢ 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 260; 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 50¢ handling, from New World Records, 3 E. 54th St., New York, N.Y. 10022.

Music Masters

Irving Berlin, 1909-39 (JJA 197: 44 songs, two discs). Among performers are Bing Crosby and Rudy Vallee.

Arden & Ohman, 1925-33 (JJA 1974-1: 20 songs). The duo pianists play music by the Gershwins with various orchestras and vocalists.

Musical-Comedy Medleys, 1928-34 (JJA 1977-6). The nine musicals represented here include the Gershwins' *Let 'em Eat Cake*.

The Music of Broadway: 1930 (JJA 1977-7), 1931 (JJA 1977-8), and 1932 (JJA 1977-9) (two discs each).

Records available for \$10 each, from Music Masters, 25 W. 43rd St., New York, N.Y. 10036.

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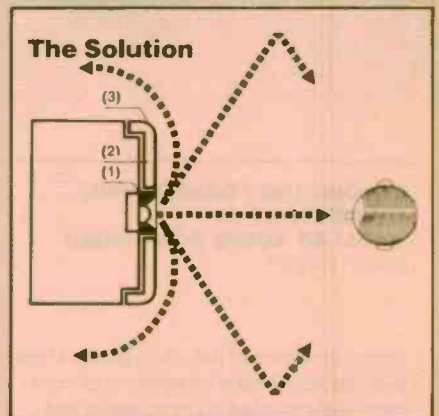
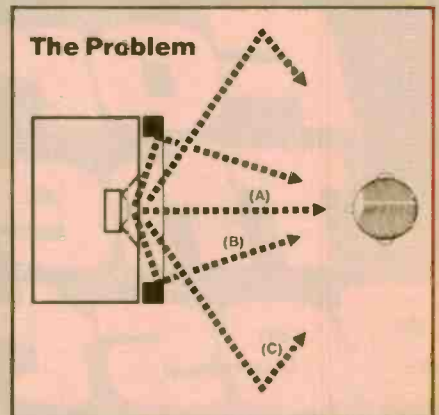
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CIRCLE 82 ON PAGE 107

BEYOND THE FOREGROUND: A DIRECTORY OF SMALLER AUDIO COMPANIES (PART THREE)

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, Fla. 33020
Peter H. Dohm
305-920-9243

Acoustat Corp. is a small manufacturing company engaged in the production of high-quality audio components. Our principal products are full-range, direct-drive, direct-radiating electrostatic loudspeakers with integral amplifiers. Our design philosophy is to take a simple "purist" principle and refine it to yield excellent results. Thus our speakers feature a large radiating area, very light diaphragm weight (and inertia), and the elimination of the audio-stepup transformers that are so common in electrostatic speakers. The Acoustat X and the newer Acoustat Monitor are able to deliver excellent fidelity and sound pressure levels from less than 30 Hz to more than 20 kHz.

Acousti-phase, Inc.

Box 207

Proctorsville, Vt. 05153
Paula Sheehan
802-226-7216

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The company manufactures only speakers. There currently are five models, their suggested retail prices ranging from \$89.95 for the Microphase to \$349.95 for the Phase III. The latter is offered in an optional butcher-block cabinet, constructed of solid hardwood to assure complete rigidity. The Phase III was honored at the 1976 Consumer Electronics Show for outstanding originality in design and engineering.

Driver sizes range from a 6½-inch woofer and 1-inch Mylar dome tweeter to a 12-inch woofer, 5-inch midrange, and 1-inch Mylar dome tweeter. Power ratings run from a minimum of 3 watts to a maximum of 100 watts rms. There are significant differences in crossovers, response, and impedance from bottom to top of the line.

Acousti-phase speakers enjoy distribution in the U.S., Canada, and Puerto Rico.

(more)

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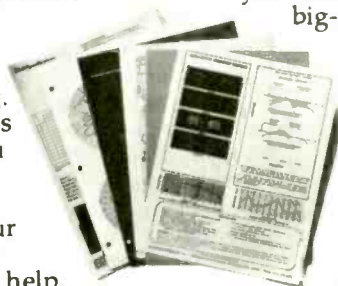
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 Robert H. Tucker
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David Spiegel, president and chief engineer of AGI, has a degree in computer science and formed AGI after an association with Dynaco and Ampro, a manufacturer of broadcast electronics. 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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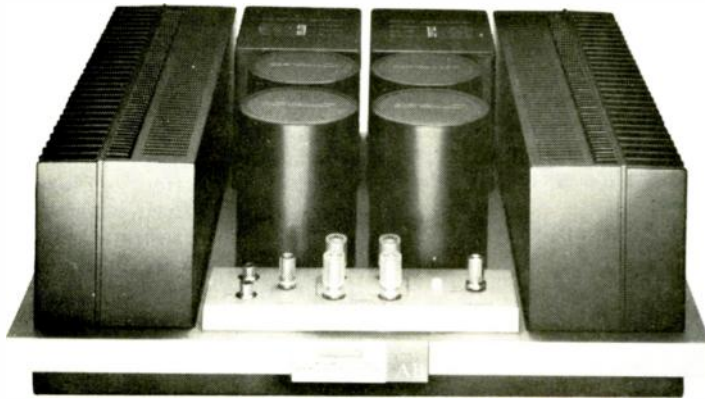
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Decio—were originally castrato roles and are sung here by women.

Theatrically 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 farrago 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 *lieto fine*, the happy ending, which nullifies the drama—a theatrical non sequitur still present in Gluck's great "reform opera," *Orfeo ed 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 international 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-theatrical sense, and excellent diction. Tenor Claes H. Ahnsjö (Gemino), though a Swede, has exemplary Italian enunciation and a fine voice he is not afraid to display. He paces his recitatives beautifully; when so presented, the recitative immediately assumes the real role it plays in the music drama.

Among the impersonators of men, Rose 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. 45) and the dark dungeon 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 trumpet with ease. Her voice has a fresh and utterly feminine timbre for a "Latin knight," and she 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 pianos. In the fortes up high, she is at times strident, and she is not helped by the microphone placement. Alto Birgit Finnila (Vittellia) acquits herself well in some of her arias, notably in "Perché? quel sanguine," 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 now 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.

ZELENKA: *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.

COPLAND: *Appalachian Spring: Suite* (chamber version). **IVES:** *Three Places in New England* (chamber version). St. Paul Chamber Orchestra, Dennis Russell Davies, cond. [Tom Voegeli, prod.] SOUND 30 DIGITAL RECORDS DLR 101, \$14.95 (3M digital recording, Sound 80, Inc., 2709 E. 25th St., Minneapolis, Minn. 55406).

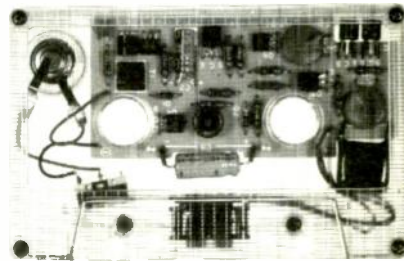
TCHAIKOVSKY: *Symphony No. 4*, in F minor, Op. 36. Berlin Symphony Orchestra, Kurt Sanderling, cond. [Heinz Wegner and Toru Yuki, prod.] DENON OX 7137 ND, \$14.95 (PCM digital recording; distributed by Discwasher).

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

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ano Trio, Op. 23. Suk Trio (Josef Suk, violin;
Josef Chuchro, cello; Jan Panenka, piano).
[Eduard Herzog and Toru Yuki, prod.] DENON
OX 7134 ND, \$14.95 (PCM digital recording;
distributed by Discwasher).

STRAVINSKY: The Firebird: Suite (1919 ver-
sion). **BORODIN:** Prince Igor: Overture;
Polovetsian Dances*. Atlanta Symphony
Orchestra Chorus*, Atlanta Symphony Or-
chestra, Robert Shaw, cond. [Robert Woods,
prod.] TELARC DG 10039, \$14.95 (Sound-
stream digital recording; distributed by Au-
dio-Technica).

**STAR WARS; CLOSE ENCOUNTERS OF THE
THIRD KIND.** Original film scores by John
Williams. Los Angeles Philharmonic Or-
chestra, Zubin Mehta, cond. [Ray Minshull, prod.]
MOBILE FIDELITY SOUND LAB MFSL 1-008,
\$15.95 [from LONDON ZM 1001, 1978] (Mo-
bile Fidelity Sound Lab, Box MF, Veradale,
Wash. 99037).

One winner, two solid efforts, and two
more exhibits for the proposed So What?
Room in 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 mo-
ment) use a digital-recording system in-
stead of conventional analog recording.
Sound 80, a Minneapolis company, uses
3M's system; Denon, 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 considerable editing 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 move-
ments)—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 MFSL from Japan, the
Telarc from Germany (Teldec). 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 com-
ponent 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 instru-
mental 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—per-
haps even more so in the original thirteenth-
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 32736), and I will

never forget the experience of hearing ev-
ery instrumental line independently de-
fined, as happened in the four-channel con-
trol-room setup. How incredibly beautiful
each of those lines is!

Unfortunately, Columbia's finished prod-
uct, although a lovely record, is considera-
bly more blended in texture. To a large ex-
tent the St. Paul version recaptures that
control-room experience, and Dennis Rus-
sell Davies' performance is perfectly solid.
Not as good as Copland's, which has a spe-
cial intensity, nor for that matter is it as
complete—what Davies plays is the suite,
which of course does not include the bi-
zarre and wonderful eight-minute "insert"
heard before the tutti restatement of the
"Simple Gifts" tune in the Copland record-
ing. I guess that makes both versions indis-
pensable.

The case for Ives's chamber version of
Three Places is less compelling; this is a re-
duction of the full-orchestra original, made
for the eminently practical purpose of get-
ting the thing performed. Still, Ives's quirky
imagination too is well served by the tex-
tural clarity produced by the combination
of chamber scoring and Sound 80's analyti-
cal yet rich-toned recording.

The obvious thing to be said about the
two new Denon discs is that their repertory
makes more stringent interpretive demands
and does not particularly benefit from X-
ray clarity. Even so, both records feature
distinguished performers attractively re-
corded. Kurt Sanderling's Tchaikovsky
Fourth is musically and sonically solid,
with predictably precise registration of tex-
tural detail (wind parts, for example), and
yet it seems to me lacking in the glowing at-
mosphere of many "conventional" East
German recordings, for example Sander-
ling's own Dresden Brahms symphonies
(Eurodisc 85 782 XHK) and Berlin Sibelius
orchestral works (Eurodisc 27 227 XCK)—
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 notic-
ing 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.

I have almost the opposite problem with
the Suk Trio disc, where instrumental clar-
ity has been stressed to the point of aggres-
siveness. All three of these distinguished in-
strumentalists are enormously, even
overwhelmingly "present" in sonic terms,
but I miss the personal and ensemble pres-
ence (here it is impossible to separate mu-
sical and engineering considerations) char-
acteristic of every other Suk Trio record
I've heard.

That reservation aside, the Suk perform-
ance 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 im-
maculate pressing is superior to what we
can expect from the eventual Supraphon
edition of this recording (another Japa-
nese-Eastern European coproduction).
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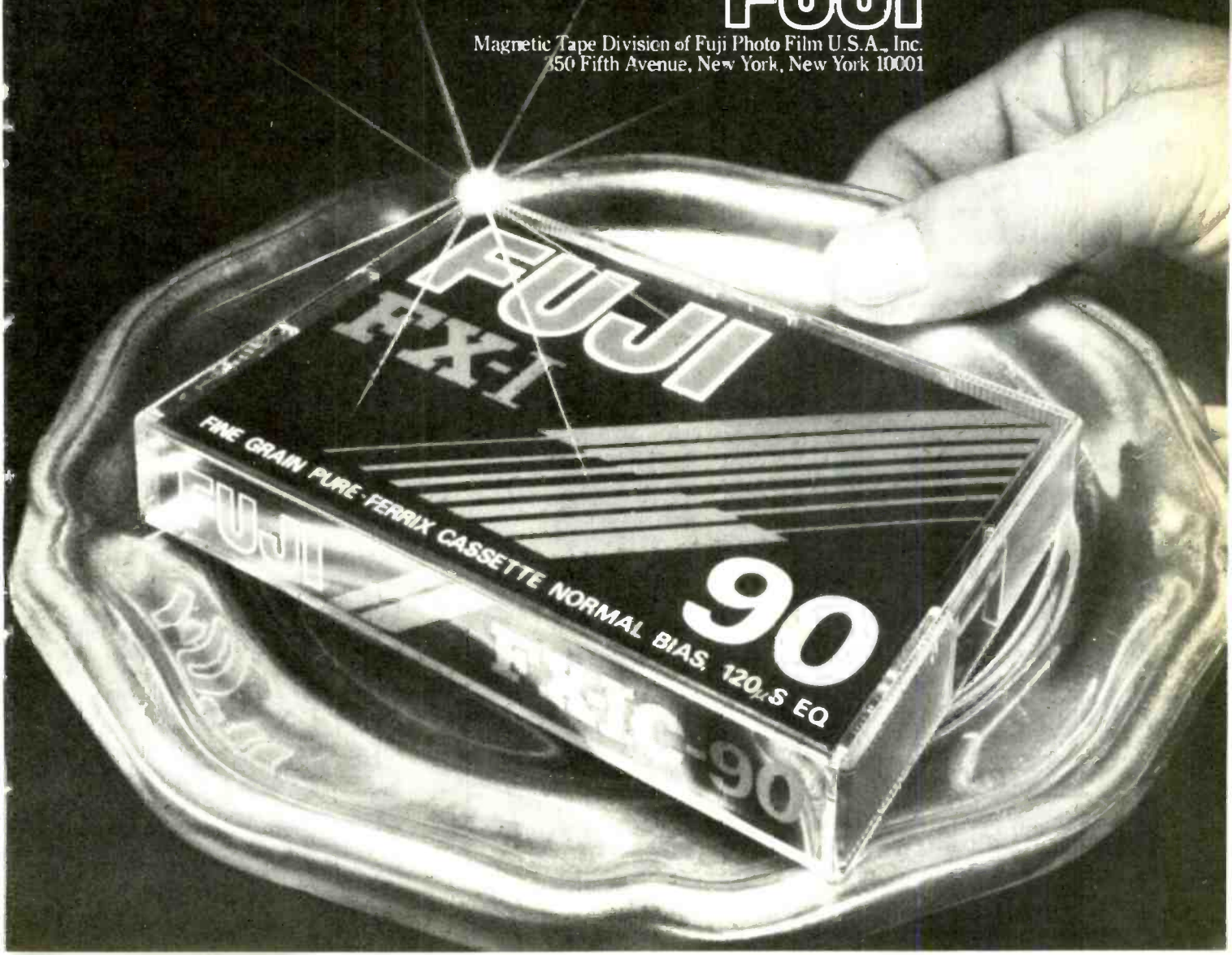
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CIRCLE 37 ON PAGE 107



You'll have to decide. The Suk Elegg, 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 music sound 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 me, add up to convincing Stravinsky or Borodin. Am I wrong in assuming that even audiophiles care about orchestral strings adequate to the demands of the music?

At that, the Atlanta string sound is preferable to the coarse, clotted sawing we hear from the Los Angeles Philharmonic in John Williams' *Star Wars* and *Close Encounters*. This is, of course, the same 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 FURIE

Gone" and her own "Down So Low" possess a plaintive subtlety that is lacking throughout the rest of the LP. But they are not enough to erase what she does to two great r&b songs, "Time Is on My Side" and "I Pity the Fool," which emerge drained and stylized, nor are they enough to revive us from the tiresome effects of "I Could Have Been Your Best Friend" and "Going Back to Tennessee," where the emptiness of her voice is matched by the emptiness of her chosen lyrics.

This album gives reason to celebrate, in view of what it might do for Nashville recording. But it isn't much fun to listen to.

NICK TOSCHES

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.

Split between 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 improviser would devour. 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 Severino. And, though three brief originals—Tedesco's own "Suelo Español," Severino's "Autumn," and Ron Corsaro's "Take a Trip"—minimize the need for improvisation, their melodies are insubstantial.

Still, a few tracks make the grade. Side 1 has an interesting new arrangement of "Bags' 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 lag, and the cymbals are corded a bit too brightly for my taste too. But until Jim Hall or George Benson or some other master records direct-to-disc, "Autumn" will be top of the genre.

MICHAEL ROZEK

POP/JAZZ

TRACY NELSON: Doin' It My Way. [Tracy Nelson and Tom Semmes, prod.] AUDIO DIRECTIONS AD 101, \$14.

If it seems strange that a direct-to-disc recording should emanate from Nashville—notorious for its undaring and torpid ways—it should be remembered that this city has also earned a reputation for the quality of its studios and the proficiency of its engineers. Tracy Nelson, her band, producer Tom Semmes, engineer Gene Eichelburger, Woodland Studios, and Audio Directions are to be congratulated for this intrepid venture. It's refreshing to hear such spontaneous, lucent sound in a Nashville recording.

The only thing wrong with "Doin' It My Way" is Nelson herself. After repeated hearings, there is little to grasp or to remember. Like Emmylou Harris, Nelson has often been criticized for her sterile virtuosity. Her voice, though fine and beautiful, seems better suited to complementing other singers (as in her duet with Willie Nelson on "After the Fire Is Gone") than to solo work. Here it sounds big and brassy and, though very dexterous within the limits of its range, has no subtlety. Its loud, melodramatic surges are often garish and unfeeling.

There are two striking moments: Nelson's version of Boz Scaggs's "I'll Be Long

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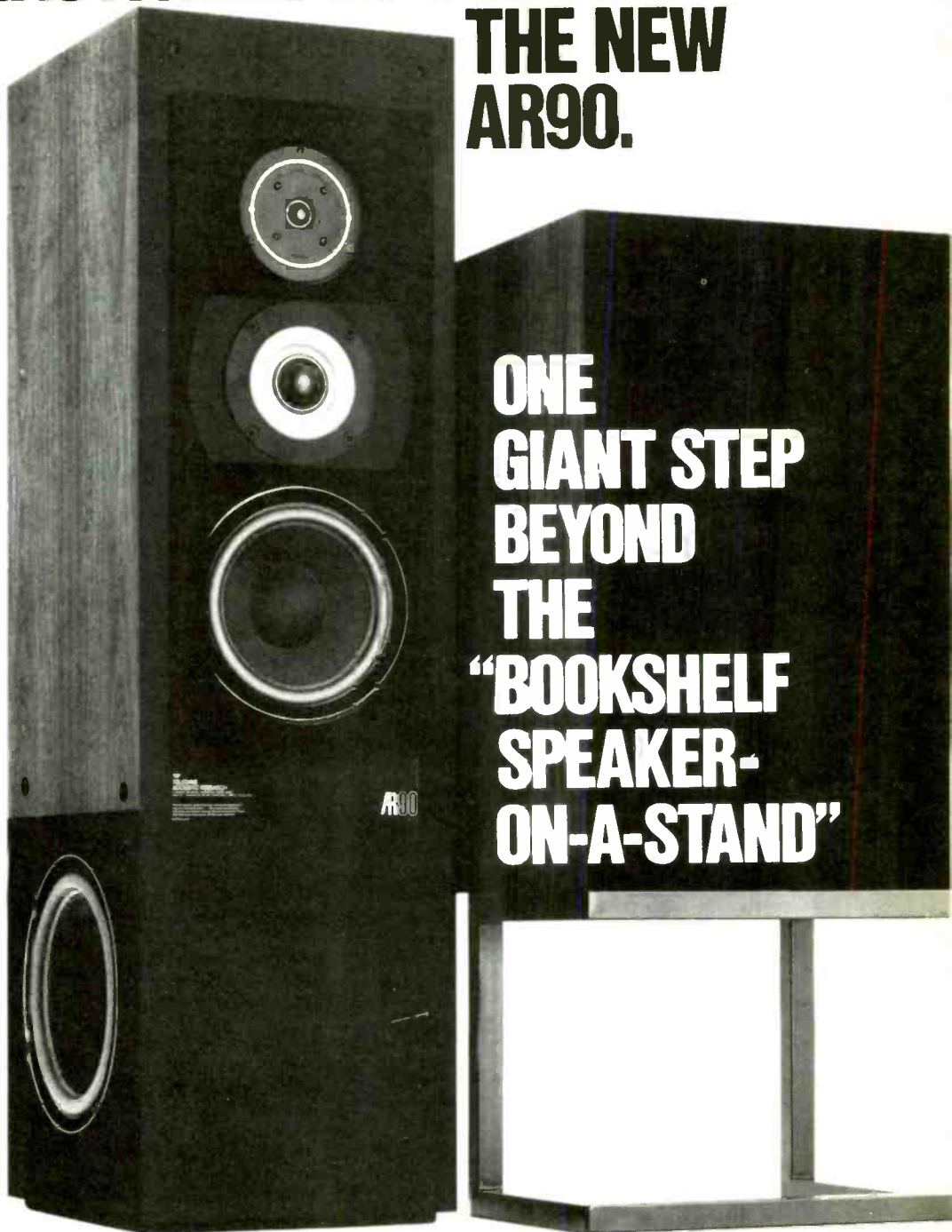
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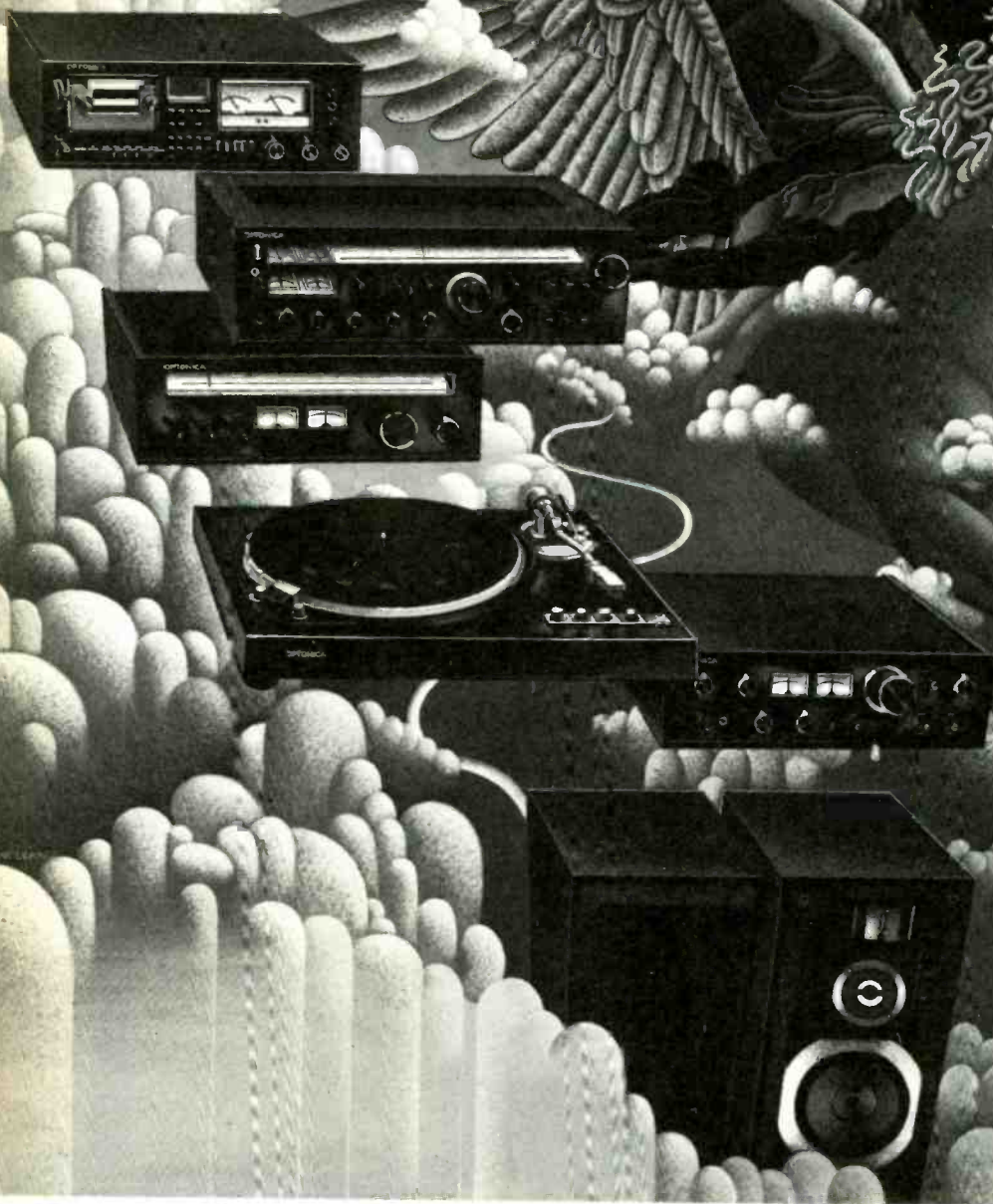
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CIRCLE 57 ON PAGE 107

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Backbeat



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

"I used to feel that when
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you became instantly stupid."

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. "Its *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 these 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 Grolnick, 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 here 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. ●

Mobile Fidelity Takes on the Pop Honor Roll

by Sam Sutherland

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.

They remake
previously released albums
by starting from
the original two-track master.

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



Al Stewart is represented by "Year of the Cat" and . . .



George Benson by "Breezin'"

jackets.) But Miller, Giorgi, and Ricker all stress mastering as being just as, if not more, crucial. Half-speed (16 $\frac{2}{3}$ rpm) as opposed to real-time (33 $\frac{1}{3}$) 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 ears 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 midpriced 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

George Benson: Breezin'. Tommy LiPuma, producer; Warner Bros., licensor. *Mobile Fidelity Sound Lab MFSL 1-011, \$15.98.*

Crusaders: Chain Reaction. Stewart Levine, producer; ABC, licensor. *MFSL 1-010, \$15.98.*

Fleetwood Mac. Keith Olsen, producer; Warner Bros., licensor. *MFSL 1-012, \$15.98.*

John Klemmer: Touch. John Klemmer & Stephen Goldman, producers; ABC, licensor. *MFSL 1-006, \$15.98.*

Steely Dan: Katy Lied. Gary Katz, producer; ABC, licensor. *MFSL 1-007, \$15.98.*

Al Stewart: Year of the Cat. Alan Parsons, producer; GRT/Janus, licensor. *MFSL 1-009, \$15.98.*

Supertramp: Crime of the Century. Ken Scott, producer; A&M, licensor. *MFSL 1-005, \$15.98.*



Becker and Fagen are at last satisfied with "Katy Lied"



Supertramp's superdisc is "Crime of the Century"

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 harmonies 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 newer 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.

Input Output



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 of 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. This, 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.

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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: ● M5 3193, ● M8 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 simple-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 beat 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 overlays are lovely, but they leave little room for the guitarists 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



Laidback vs. hopped-up: Hartman, Baxter, McDonald, Simmons, Porter, Knudsen

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 crackle 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 laid-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. ●

The Joe Brooks Group. Joe Brooks, producer. *Atlantic SD 19206, \$7.98. Tape: ● CS 19206, ● TP 19206, \$7.98.*

If you think I'm going to take the usual cheap shots at Joe "The poor man's Marvin Hamlisch" 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. T.E.

Elvis Costello & the Attractions: Armed Forces. Nick Lowe, producer. *Columbia JC 35709, \$7.98. Tape: ● JCT 35709, ● JCA 35709, \$7.98.*

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 brash, 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.



Costello at his most ambitious

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 lush, 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 Nave's newly elegant fugual excursions and the LP's wider range of voicings. 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. Thematically, 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. S.S.

Crazy Horse: Crazy Moon. Richard Heenan, Kirby Johnson, Neil Young, Tim Mulligan, David Briggs, producers. *RCA AFL 1-3054, \$7.98. Tape: ●● AFK 1-3054, ●● AFS 1-3054, \$7.98.*

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?

Anyway, 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 (hooray!) 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? T.E.



Crazy Horse



J. Geils Band—in search of a sanctuary

J. Geils Band: Sanctuary. Joe Wissert, producer. *EMI America SO 17006, \$7.98. Tape: ●● 4X0 17006, ●● 8X0 17006, \$7.98.*

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 *Jus' 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. T.G.

John Handy: Handy Dandy Man. Bobby Martin & Benny Golson, producers. *Warner Bros. BSK 3242, \$7.98. Tape: ●● M5 3242, ●● M8 3242, \$7.98.*

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 trim-

mings, 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* 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



Handy—weak jazz but strong pop

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

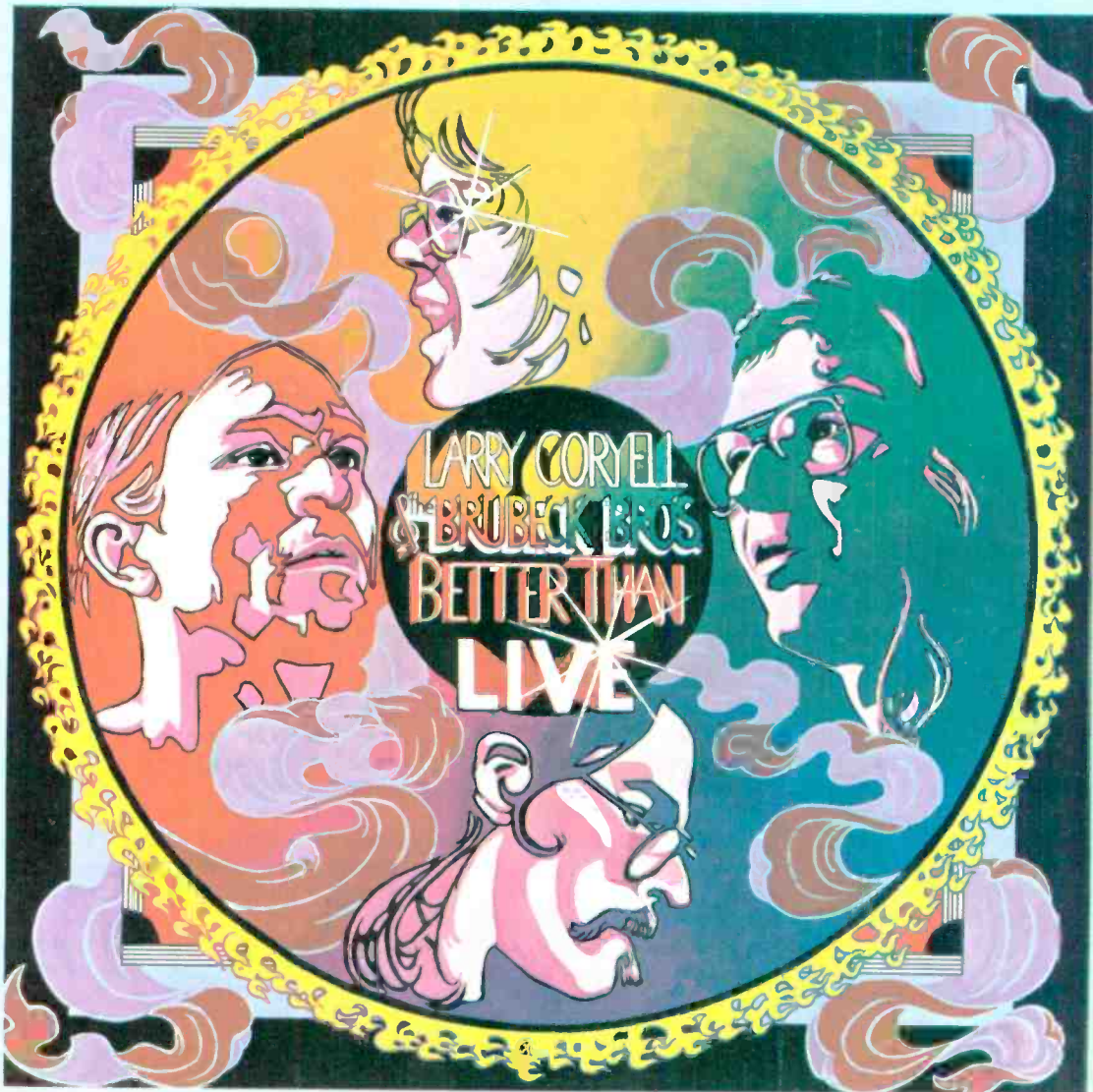


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Stiff's future dreams: Wreckless Eric, Lewie, Sweet, Lovich, Jupp

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 record 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 teenager Rachel Sweet, whose cover of Carla Thomas' *Baby* hit 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.

Mickey Jupp: Juppanese. Nick Lowe & Gary Brooker, producers. *Stiff SEEZ 10*, \$8.98.

Jona Lewie: On the Other Hand There's a Fist. Jona Lewie, producer. *Stiff SEEZ 8*, \$8.98.

Lene Lovich: Stateless. A Stateless Production for Oval. *Stiff SEEZ 7*, \$8.98.

Rachel Sweet: Fool Around. Liam Sternberg, producer. *Stiff SEEZ 12*, \$8.98.

Wreckless Eric: The Wonderful World of . . . Pete Solley, producer. *Stiff SEEZ 9*, \$8.98.

Continued from page 124

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. J.S.R.

Ian Matthews: Stealin' Home. Sandy Robertson, producer. *Mushroom MRS 5012, \$7.98. Tape: ● MRSC 5012, ● MRS8 5012 \$7.98.*

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; had he 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 the ballads. Two standouts are Richard Stekol'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 Robertson, who guided the singer's best collaborative work (Plainsong's "In Search of Amelia Earhart," the quartet's lone release). Robertson effectively



Ian Matthews—classy and intelligent

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. s.s.

The Neville Brothers. Jack Nitzsche, producer. *Capitol ST 11865, \$7.98. Tape: ● 4XT 11865, ● 8XT 11865, \$7.98.*

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 their earlier work. 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' writing.

Some of those choices emphasize the early heritage: for instance, the lesser-known Leiber-Stoller gem *Dancin' Jones* (originally cut by its cowriters, Dino & Sembello) and the evocative *Arienne*, 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. s.s.

Todd Rundgren: Back to the Bars. Todd Rundgren, producer. *Bearsville 2BRX 6986, \$12.98 (two discs). Tape: ● M5 6986, ● M8 6986, \$12.98.*

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



Rundgren—for diehards only



Stewart with props—eligible for boycott

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 problematic onstage, Rundgren the instrumentalist isn't much of an improviser. As a result, these performances are more replicas 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-psychedelic asides (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 occa-

sional 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. Tom Dowd, producer. Warner Bros. BSK 3261, \$7.98. Tape: ● M5 3261, ● M8 3261, \$7.98.

*You common cry of curs! whose breath I hate
As reek o' the rotten fens, whose loves I prize
As the dead carcasses 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 pleas 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 bitch?" he blithely 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 strep throat. The other songs are originals in the sense that Stewart penned the self-serving 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 Guarneri Plays Fats Waller. Norvin Armstrong & James Turner, producers. Taz-Jaz TJZ 1002, \$7.98 (Taz-Jaz Records, P.O. Box 694, Los Angeles, Calif. 90049).

For as experienced a Fats Waller stylist as Johnny Guarneri, 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), Guarneri 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 Mischievous, 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 Guarneri were 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 tedious *Stealin' Apples* and his easy, au-

Continued on page 132

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A Delightful Collection of Disney Classics

by Todd Everett

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 ac-



Disney—a fitting tribute

companying 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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CIRCLE 24 ON PAGE 107

Continued from page 128

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.

Terry Garthwaite: Hand in Glove. Orrin Keepnews, John Guerin, producers.
Fantasy: F 9564, \$7.98. Tape: ●● 5 9564H, ●● 8 9564H, \$7.98.

Every now and then a performer and a producer come together with just the right blend of talent, imagination, and willingness to take chances. The results can be breathtaking, as they are on this stunning new album by Terry Garthwaite. The jazz influences that wafted around the edges of her work with Joy of Cooking have now pushed right into the very center of her music. This has been eagerly—even joyfully, I suspect—abetted by the sage, experienced production hand of Orrin Keepnews and brilliant rhythmic support of coproducer/drummer John Guerin.

There are some things that Garthwaite does better than others. Most provocative is her ability to invest her phrasing with punchy, almost percussive rhythmic accents. Guerin seems to be aware of this and tailors his precise, clear drum strokes to complement it. She does her best work, in this respect, on *Bye Bye* (accompanied by some fiery drumming), *Ticket to Chicago*, and *You Don't Know*, on which she blends guitar and voice in a Clapton-like manner.

Van Morrison's *Moondance* is a logical choice what with Morrison's natural connection with jazz. Yet she takes a sharp, almost quixotic turn and gives it a folk/rock treatment, bringing it a vibrant, new coloration. *Happiness*, one of seven Garthwaite originals, buzzes with a rhythm that lies somewhere between New Orleans and Northern Brazil. It is the most upbeat of her songs, many of which deal with feminist sentiments and—often in sardonic terms—disintegrating relationships.

There are some things I don't like about the album, however. Neither the timbre of Garthwaite's voice nor the style of her phrasing is appropriate for

ballads like Arthur Herzog's fine old standard, *Some Other Spring*, or her own *You're Fine*. She leans toward an older jazz ballad style that is simply inappropriate for her tough, gritty voice. And her performance of *What's the Matter with Love*—despite its fine, rocking groove—sounds like a near-mimicry of Carmen McRae. D.H.

Roland Hanna with George Mraz: Sir Elf Plus 1. Gerry MacDonald, producer.
Choice Records CRS 1018, \$7.98.

This 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 cut 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 rhythmic 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 *Majorca*) 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 palls 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.

Eddie Harris: I'm Tired of Driving. Richard Evans, producer. RCA APL 1-2942. \$7.98. Tape: ●●APK 1-2942. ●●APS 1-2942. \$7.98.

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 tunes 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 crossover 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. M.R.

Carmen Leggio: Aerial View. Howard Kenyon, producer. *Dreamstreet DR 103*. \$7.98 (*Dreamstreet Records, P.O. Box 193, Ho ho kus, N.J. 07423*).

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 ex-



Leggio—alto authority

citing 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, for 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 *Swinging 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 dash through *Stella by Starlight*, followed by a catchy, lilting jazz calypso called *Pogo*.

The second side offers equal variety—bop, ballad, funk, and uptempo race—but more of the weight is carried 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! *Halcyon HAL 115*. \$6.98 (*Halcyon 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

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The Bee Gees Complete, Vol. 2. *WBP, 85 songs, \$9.95.*

Sgt. Pepper's Lonely Hearts Club Band. *WBP, 28 songs, \$9.95.*

Andy Gibb: Shadow Dancing. *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 delectable 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 most 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 Öyster 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.

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* (CS&N), and *A Horse with No Name* (America). Hardcore folio freaks 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.

The Songs of Bob Dylan—from 1966 through 1975. *Alfred A. Knopf/Cherry Lane, 73 songs, \$9.95.*

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 incentive, boot-licking lava-lovers, and blinkered arcades; 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.*

Robert Palmer: Double Fun. *WBP, 9 songs, \$5.95.*

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 semiquaver 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 songcycles.

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.

Joni Mitchell: Don Juan's Reckless Daughter. *WBP, 9 songs, \$6.95.*

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?

Music of Today for Combo. *WBP, 15 songs. Piano/rhythm section \$4.50; B flat, C, and bass clef instruments, \$3.50 each.*

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 counter-melodies are interchangeable with the instrumental parts. Most of the selections are "music of today"—*Can't Smile Without You*, *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'll 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.*

Mr. Porter's songs epitomize the golden age of sophisticated musical comedy. The folio includes a generous helping of rarely performed material—*Find Me a Primitive Man*, *Mr. and Missus Fitch*, *Take Me Back to Manhattan*—along with the more predictable *Begin the Beguine* and *Night and Day*. Musical theater buffs and cabaret singers will enjoy this chronologically organized collection from one of America's landmark composers.

Renaissance. *WBP, 13 songs, \$8.95.*

What have we here? Certainly a good deal less than meets the eye. I have nothing against the songs (excerpted from six of the group's LPs), but fifty-six of the 135 printed pages are devoted to Donald Sosin's loop-tape transcriptions of the meandering, guitar-thrum instrumental choruses. Measures follow identical measures ad nauseam. To quote Betty Thatcher, the Renaissance lyricist-in-residence, the group is indeed "losing ground in changes sliding endlessly."

Kenny Rogers & Dottie West: Every Time Two Fools Collide. *10 songs, \$5.95.*



Barry Manilow

Kenny Rogers: Love or Something like It. *11 songs, \$5.95.*

The Statler Brothers Songbook. *20 songs, \$6.95.*

All published by Cherry Lane Music.

Two-line, easy-play piano-vocals are the order of the day from Milton Okun and Dan Fox, Cherry Lane's arrangers extraordinaire. Though the genre is country in these three new folios, the artists have chosen their material carefully, and the well-crafted music and lyrics have a universal, open-hearted appeal that defies categorization. I particularly recommend the *Statler Brothers Songbook*, which comes complete with biography, discography, and performance notes.

The Rolling Stones: Some Girls. *WBP, 10 songs, \$7.95.*

The Jagger-Richards songbag continues a tradition of musical nose-thumbing and prankish graphics. As the granddaddies of punk, the Stones have a lot to answer for. But they do it so much better than their descendants that one can forgive occasional crudities and concentrate instead on the incisive buoyancy that keeps their material fresh and in style.

Wings: London Town. *WBP, 15 songs, \$7.95.*

We are indebted to the McCartneys and Denny Laine for their consistent good taste and inventiveness. This ménage à trois collaborates with camera as well as pen, and the folio's brilliant color candid shots of London and its three protagonists add even more éclat to a superior collection of melodies. Don't miss this one.

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CIRCLE 12 ON PAGE 107



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CIRCLE 23 ON PAGE 107

sometimes hard to know which hat she is wearing. On this disc, played by an all-women quintet, she seems to be combining her feminist and musical interests. She has been in the forefront of the women's movement in jazz, writing the first book on women in the field and helping to organize the Women's Jazz Festival last March in Kansas City.

This disc is a recording of her own women's jazz festival held in Rochester, N.Y. in June of 1977. The quintet she plays with, all but one of whom (alto saxophonist Vi Redd) were also at Kansas City, is unusually interesting because of its variety of colors. These are no run-of-the-mill musicians hacking away at whatever happens to be trendy. They all have strong, positive musical personalities. The most notable is guitarist Mary Osborne, who has a fresh, full tone, a very clean and swinging way of phrasing, and a lovely flair for shading and nuance. Whether she is building a rich, warm solo with sweep and panache on *What Are You Doing the Rest of Your Life?* or swinging briskly through *I'll Remember April*, she is totally in control of both sound and structure.

Miss Redd's alto can become a bit shrill, but that at least gives her playing a sense of urgency that is balanced by touches of lyricism in the Benny Carter manner. Hearing McPartland in an ensemble situation rather than her customary solo, duo, or trio role is a refreshing reminder of what a vigorous, two-handed pianist she can be, and her solo spots (notably *Straight, No Chaser*) remain outstanding. Bassist Lynn Milano and drummer Dottie Dodgion are a strong, pulsing team. Milano occasionally projects a spongy sound that may be related more to sound balance than to performance, and Dodgion shows once again that she is an exemplary, straight-ahead drummer who is content to swing with no distracting flurries of exhibitionism.

J.S.W.

Tito Puente: Homenaje a Beny. Louie Ramirez, producer. *Tico JMTS 1425*, \$7.98. *Tape: ●● 4XT 1425, ●● 8XT 1425*, \$7.98.

In a single decade, from the mid-1940s to the mid-1950s, the contemporary hot Latin music we now call salsa came of age. Among the era's major creative heads were Cuban singer Beny More—many of whose compositions are salsa standards—and New York's Tito Puente, who helped establish its more modern sound.

Puente's new Tico album, "Homenaje a Beny," is, in no sense, simple nostalgia. Its more than half a dozen vocalists in-

Continued on page 139

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Tito Puente

Continued from page 136

clude Celia 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 chanted 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 Hector 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 tautening trampoline for Casanova's soaring, spinning vocal. Sonny Bravo's simple, subtle *Camarera del Amor* uses clean, graceful piano interspersed 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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J.S.R.

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Key No	Page No.
55	ABC Records.....98
57	Acoustic Research.....113
1	ADC Professional Products, a div. of BSR Consumer Products Group.....7
3	ADC Professional Products, a div. of BSR Consumer Products Group.....88
2	AIWA.....6
	Akai America Ltd.....12
4	Altec Lansing.....28
5	Ampex Corp.....27
6	Angel Records.....92
7	Audio Dynamics Corp.....18
8	Audio Technica U.S., Inc.....13
9	Audio Technica U.S., Inc.....39
10	Bib Hi Fi Accessories.....93
	Bose Corp.....50
11	BSR Consumer Products Group.....29
12	Carston Studios.....136
13	Celestion Industries, Inc.....15
	Classified Ads.....137-139
14	Crutchfield Corp.....30
15	DBX, Inc.....97
16	Direct Disk Records.....125
17	Discount Music Club.....110
	Discwasher, Inc.....129
	Dual.....21
18	Electro-Voice, Inc.....10
	Empire Scientific Corp.....36
20	ESS, Inc.....81
21	Fisher Corp.....49
58	Fuji Photo Film U.S.A., Inc. Magnetic Tape Division.....111
22	Hi Fi Buys.....112
	High Fidelity.....102
23	Icelandic Airlines.....136
24	Illinois Audio.....132
25	Infinity Systems, Inc.....46
26	International Hi Fi.....132
	Jensen Sound Laboratories.....70, 71
28	J & R Music World.....121
29	JVC America, Inc.....11
	Kenwood.....Cover IV
30	Koss Corp.....45
	Lux Audio of America.....99
	Marantz Co., Inc.....140, Cover III
31	Maxell Corp.....53
32	McIntosh Laboratory.....52
33	Mitsubishi Audio Systems.....54, 55
34	Mitsubishi Car Audio.....78, 79
	Nikko Audio.....32
35	Onkyo.....131
36	Optonica Electronics.....114
37	Park Row Electronics.....112
38	Phase Linear.....56
	Pioneer Electronics Corp.....101
39	Pioneer High Fidelity.....Cover, II, 1
	Radio Shack.....65
40	RTR Industries.....26
56	SAE, Inc.....31
41	Sansui Electronics Corp.....8, 9
42	Shure Brothers, Inc.....82
43	Sony Corp. of America.....95
44	Sound Guard.....87
45	Sound Reproduction.....121
46	Source Engineering.....80
	Speakerlab, Inc.....133
47	Stanton Magnetics.....2
48	Stereo Corp. of America.....133
	Stereo Discounters.....32
49	TDK Electronics.....24, 25
50	TDK Electronics.....109
51	Teac Corp. of America.....22
52	Technics by Panasonic.....5
	3M Company.....103
	Time Life Records.....33, 35
53	Top Discount Audio.....80
	United Audio Products.....21
54	Wisconsin Discount.....30
	Yamaha Audio.....16, 17

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Now there's a Marantz component system for everyone! From our most affordable to our finest—with 223 systems priced in between—Marantz delivers the same top Marantz quality and the same stunning Marantz look. There's never a compromise! And with so many systems to choose from, you'll be able to find the exact match for your listening requirements and budget.

A MARANTZ EXCLUSIVE: MIXED SYSTEMS THAT REALLY MATCH.

From the least expensive to the most expensive, all Marantz Pre-Amps, Power Amps, Console Amps, Tuners and Front-Load Cassette Decks feature the same front panel size, the same striking cosmetics, the same top quality design philosophy. So whatever component combination you choose, you'll have a perfect match. Only with Marantz.

BRINGING IT ALL TOGETHER.

Once you have selected a system, only one question



The RM-3700 STACK RACK contains three Marantz components on fixed-positioned shelves, an accessory shelf and divided record compartment behind its full-length smoked-glass door. The Marantz system shown includes the 6170Q Turntable, 2110 Tuner, 1180DC Integrated Amplifier, 5010B Cassette Deck and Design Series 930 Speakers.

remains: Where do you put it? With a Marantz STACK RACK you can bring it all together—with style. The RM-3100 "Professional" STACK RACK (at right) will accommodate up to four Marantz components equipped with optional rack handle adaptors. Or you may prefer the RM-3700 "Decorator" STACK RACK (above) which encloses three Marantz components behind its full-length smoked glass door. A perfect fit in either rack, your entire system will be at your fingertips.

BUILD NOW. ADD LATER.

Once you see and hear what Marantz components have to offer by way of more performance per dollar, striking appearance and unheard of flexibility, you'll be sold. You'll have a perfectly matched system tailored to your specific needs from as little as \$650* to \$2100*. And don't hesitate when you want to upgrade any part of your system. Any Marantz component you upgrade to will match what you already have.

MIX AND MATCH BY MARANTZ—IT'S ALL FOR YOU.

17 separate components from Marantz. Designed to mix and match into 225 different systems to give you unprecedented flexibility. Whoever you are, Marantz has the perfect system for you.

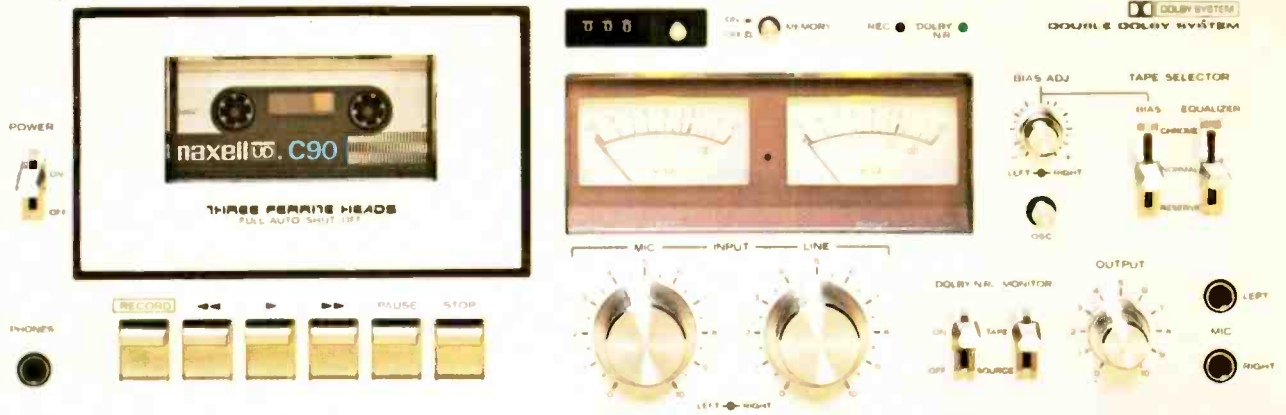
The three unit Marantz system shown at right includes the 2100 Tuner, 1090 Integrated Amplifier and the 5000 Cassette Deck with 6270Q Turntable. The four unit Marantz system shown at the far right includes the 2130 Tuner, 3650 Pre-amplifier, 5030B Cassette Deck and the 300DC Amplifier with a 6370Q Turntable.

25th Anniversary **marantz**®

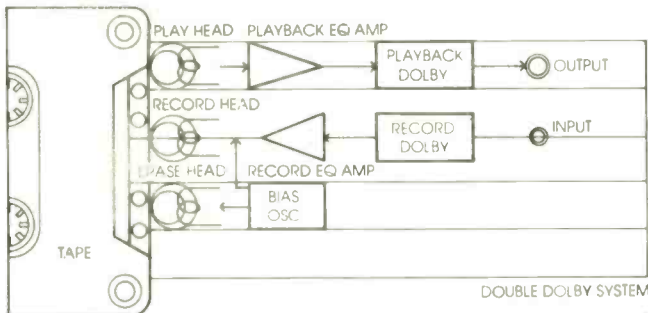
**225 MARANTZ SYSTEMS.
AS A MATCH - FROM \$650* TO \$2100.***



KENWOOD STEREO CASSETTE DECK MODEL KX-1030



ALL THREE-HEAD CASSETTE DECKS LET YOU HEAR AS YOU RECORD. OURS LETS YOU RECORD PRECISELY WHAT YOU HEAR.



Three-Head Design with Double Dolby.*

Not all three-head cassette decks are created equal. Some manufacturers have designed their decks with separate erase, record and playback heads primarily for convenience. So you can tape monitor as you record.

But our KX-1030 uses separate heads primarily for performance. Each designed with the optimum gap to record or play back sound more accurately.

As a result, the KX-1030 has a frequency response of 35-18,000 Hz (± 3 dB using CrO₂ tape).

And to let you take full advantage of the separate record and playback heads, the KX-1030 has a Double Dolby* system with separate circuits for the record amplifier and the playback preamplifier. That way, as you record

with Dolby, you can also tape monitor with Dolby, so you hear the sound precisely as it's being recorded.

The KX-1030 also has a Variable Bias Adjustment Control and a built-in oscillator, so you can adjust the exact bias for the type or brand of tape you use.

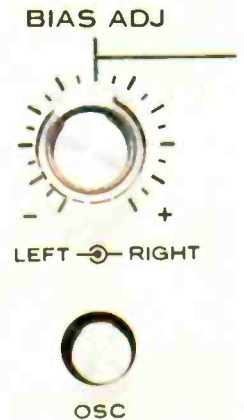
We also built in a number of other features like MIC/LINE mixing, memory rewind and a peak indicator.

But as good as all this sounds, wait until you hear the price. Because at \$450.00,** no other comparably priced cassette deck can match the performance and features of our KX-1030.

Of course the only way you're really going to appreciate the KX-1030 is to visit your Kenwood dealer. Once you do, you'll be convinced: Performance, convenience, and value set the KX-1030 apart from all the rest.

*Dolby is the trademark of Dolby Laboratories, Inc.

**Nationally advertised value. Actual prices are established by Kenwood dealers.



Variable Bias Adjust compensates for tape differences.



KENWOOD®

For the Kenwood dealer nearest you, see your yellow pages, or write, KENWOOD, P.O. Box 6213, Carson, CA 90749