

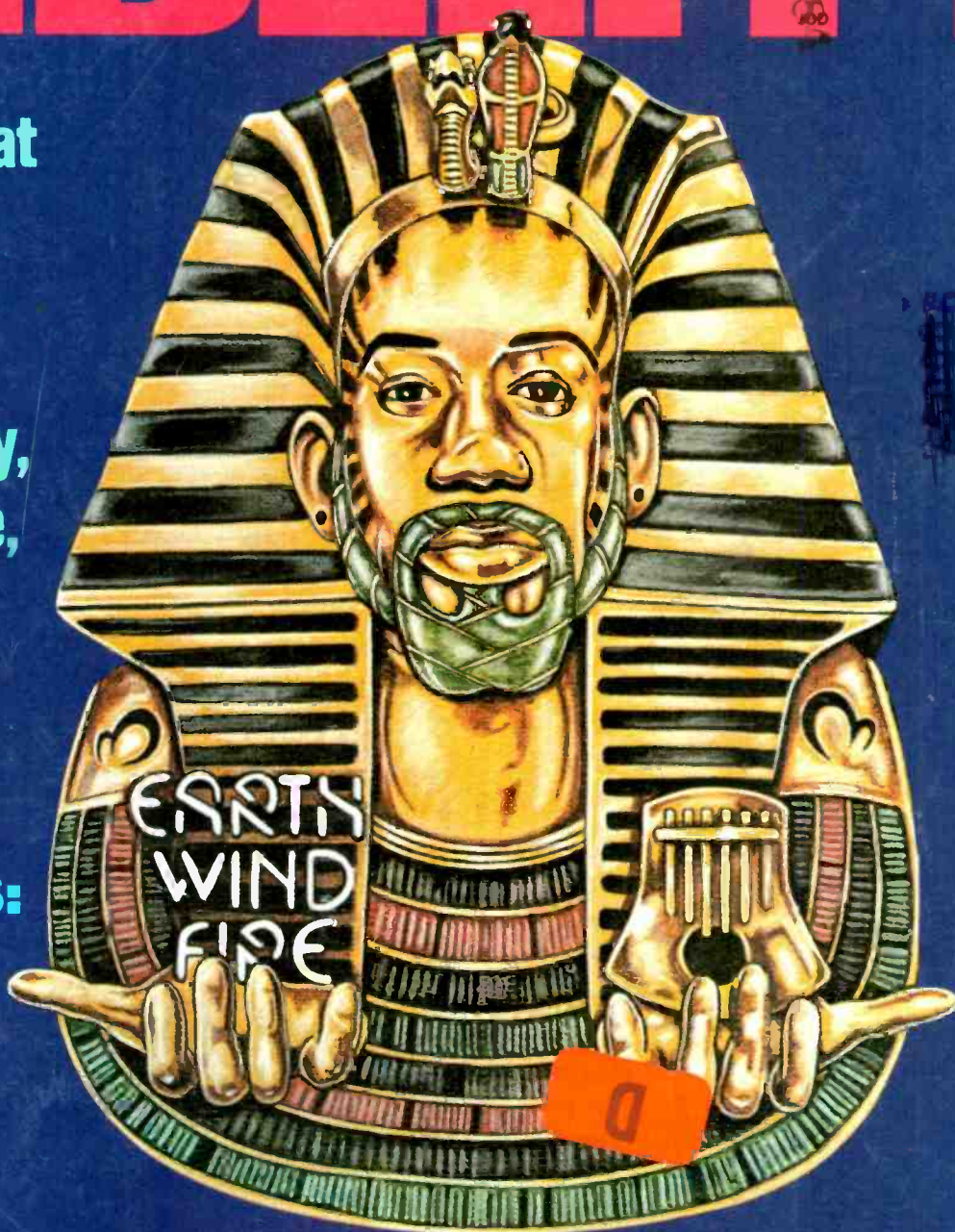
JANUARY 1979 \$1.50

HIGH FIDELITY

08398

In Backbeat
Earth,
Wind
& Fire
Egyptology,
Vaudeville,
and Funk

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REPORTS:



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oundSpace Control ■ Audio-Technica ATH-7 Headset
5030B Cassette Deck ■ SAE 2900 Preamp
Nagatron HV-9100 Ribbon Cartridge



Pop Critics Toast/Roast 1978 ■ The Exploitation of Maria Callas

Innovation is nothing new to Pioneer. We were the first to introduce the high power receiver. Sooner or later everyone followed.

We were the first to create the front loading cassette deck. And the first with a quartz lock loop turntable that was as easy on the budget as it was on the ear. Again, our competition had no alternative but to follow.

So now that Pioneer introduces the CT-F900, we expect that soon there'll be a few rushed-through imitations that have our look. But not our value.

This is no small coincidence. And it's nothing we're unaccustomed to. It's a simple case of follow the leader.

A METERING SYSTEM AS FAST AS THE SPEED OF SOUND.

Conventional cassette decks are all plagued with the same problem. Either they have slow to react VU meters that give you average readings or slightly more advanced LED's that give you limited resolution.

Pioneer offers a better resolution. A Flurosca metering system that's so fast and so precise, it provides a more accurate picture of what you're listening to.

It covers the range of -20 dB to +7 dB in 20 easy-to-read calibrations. And while other meters may work within that same range, in terms of precision they're not even in the same neighborhood.

The CT-F900 has a Peak Button that lets you register all the peaks in the incoming signal. And lets you register an unheard of level of harmonic distortion. Less than 1.3%.

A Peak Hold Button that retains the highest peak level in each channel. So you can record at the highest level possible without fear of overload.

And an Average Button that makes the Flurosca meter respond like an ordinary level meter.

A DIGITAL BRAIN WITH AN INCREDIBLE MEMORY.

All cassette decks have tape counters. Even the most respectable ones have mechanical counters you can't really count on.

Pioneer's designed the most precise electronic way of keeping track of your tracks.

As the take up reel rotates, pulses are fed to a microprocessor which provides a three digit readout on an electronic tape counter.

The terminology may be difficult to understand, but the benefit of all this is simple. Precision. Dependability. And convenience.

Many of these "better" cassette decks also claim they have advanced memories. But there are functions that even the best of them haven't been programmed to remember.

The CT-F900 has the first electronic memory of its kind that performs four different functions.

Memory Stop automatically stops the tape wherever you select. Memory

ON IT SOONER. WIN IT SOONER.

THE CETTE DECK THAT OFFERS FLUROIN AND BIASING BY EAR.

Play rewinds the CT-F900 also offers then automatically Dolby* noise mode. Counter Re that eliminates noise cassette when the monitoring and reached. Then be glues tape hiss to -64 wherever you want button controls that Repeat automatic action switching so And then replays y from one mode to for endless listening. ilamaging the tape. A

**WE'RE HAPPY
BUT SURE**

Every audiophyow and flutter. And achieve professioou hook the CT-F900 three heads are bar so you can make And while youwhen you're not there. heads from most hat went into the

CT-F900 sounds impressive. But it's not half as impressive as what comes out of it.

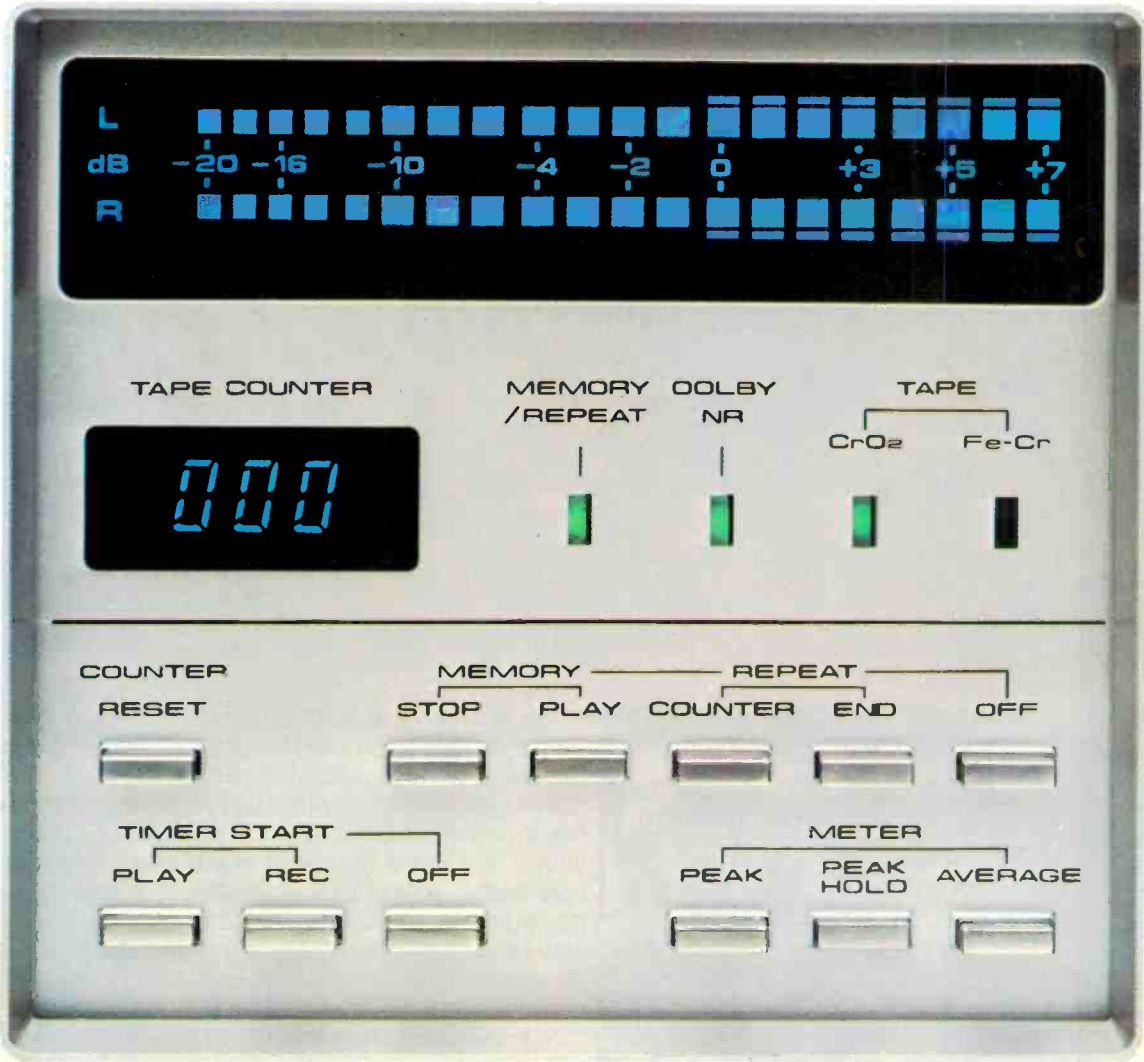
Given all this, it's not surprising that sooner or later all cassette decks will be built along the lines of the CT-F900.

But even then there will be that fine line that has always separated Pioneer from the competition. Value.

PIONEER®
We bring it back alive.

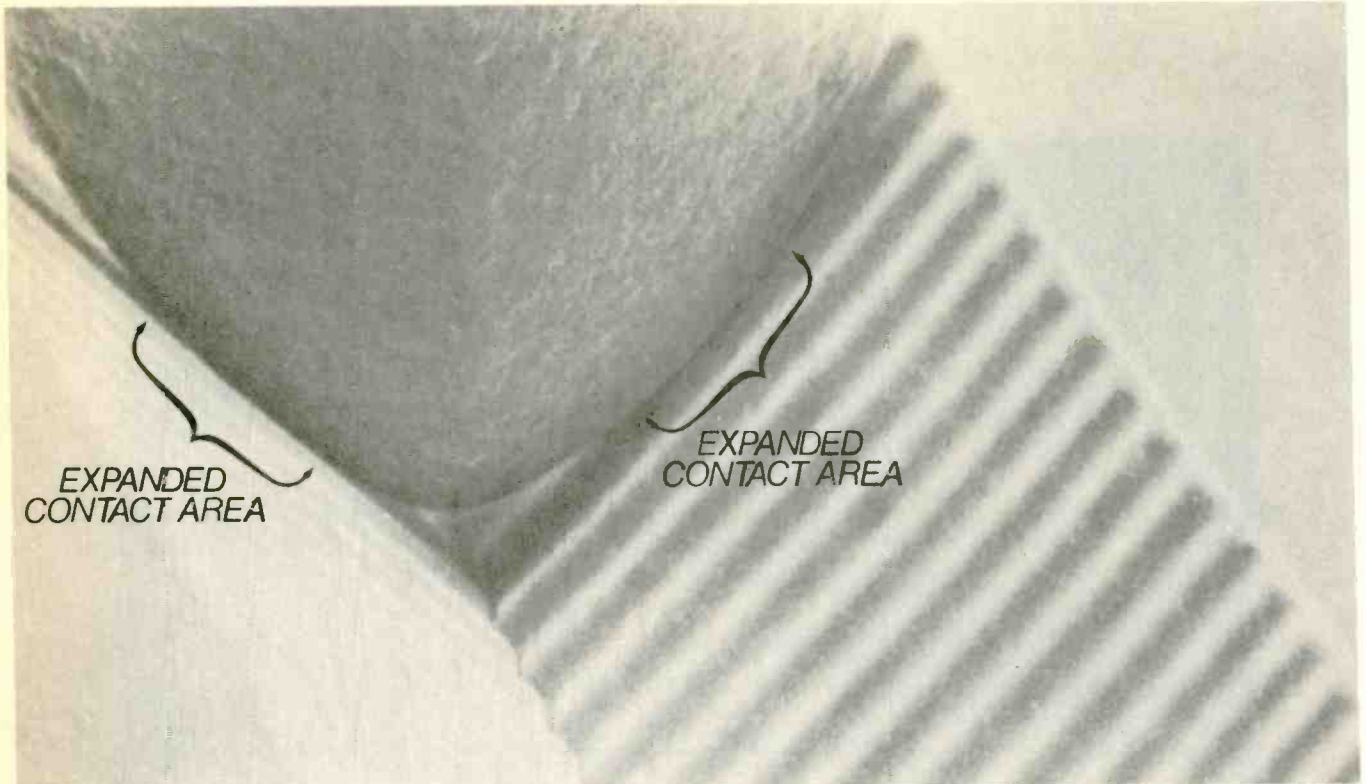
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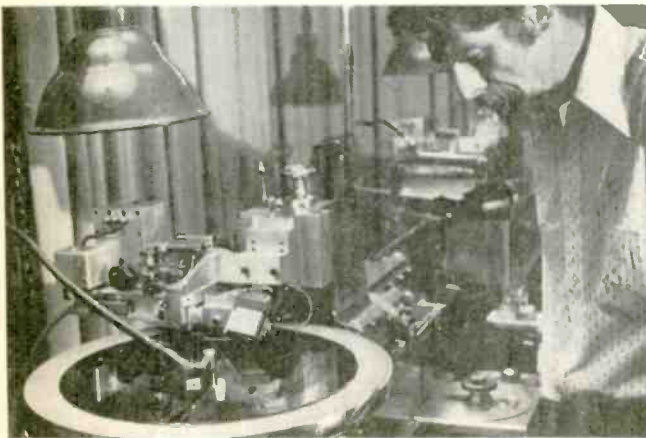


PROFESSIONAL

The New #1 in all Professional Applications....
Stanton's Calibrated 881S Cartridge



Scanning Electron Beam Microscope photo of Stereohedron stylus; 2000 times magnification. Brackets point out wider contact area.



Mike Reese of the famous Mastering Lab in Los Angeles says: "While maintaining the Calibration Standard, the 881S sets new levels for tracking and high frequency response. It's an *audible* improvement. We use the 881S exclusively for calibration and evaluation in our operation."

No wonder this cartridge has achieved such dominance so swiftly. It has design, engineering and quality features that no other cartridge has. Stanton's new Professional Calibration Standard 881S cartridge is designed for maximum record protection. This requires a brand new tip shape, the Stereohedron,TM which was developed for not only better sound characteristics but also the gentlest possible treatment of the record groove. This cartridge also possesses a revolutionary new magnet. It is made of an exotic rare earth compound which, because of its enormous power, is far smaller than ordinary magnets.

Stanton guarantees each 881S to meet its specifications within exacting limits. The most meaningful warranty possible, individual calibration test results come packed with each unit.

Whether your usage involves recording, broadcasting or home entertainment, your choice should be the choice of the professionals...the STANTON 881S.

For further information write to Stanton Magnetics, Terminal Drive, Plainview, New York 11803.

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STANTON!

The choice of the professionalsTM

This new Stanton advertisement will appear in major consumer publications.

CIRCLE 42 ON PAGE 99

HIGH FIDELITY

JANUARY 1979

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The Leftover Decade

Good God! Is it really 1979—the last year of the Seventies? Has it been nearly a decade since the Radical Sixties? So the calendar indicates. Well, then, what sort of imprint, if any, have the 1970s made on our lives, outlook, music, art, politics, technology, consciousness?

Granted, the very idea of characteristic decades is a bit illogical—so what if the Earth has gone around the sun as many times as people have fingers? And yet, somehow, each of these artificial periods does seem to push our culture in one direction or another—not least of all our musical attitudes: the Gay Nineties, followed by that imperial and decadent decade when the phonograph, abetted by Enrico Caruso, became a respectable musical instrument; our century's teens, dominated by World War I—or was it Stravinsky's *Rite of Spring*?—that led to the irresponsible Roaring Twenties, with its irresponsible music, jazz, its dance craze, the rise of Duke Ellington, the introduction of electrical recordings, and serious music overwhelmed by a got-to-sound-different-at-all-costs aesthetic; the Depression Thirties, an era of proletarian brotherhood and totalitarian atrocities, with social consciousness dominating the arts, Aaron Copland rediscovering the triad, and radio becoming the universal home entertainment medium; the anti-Fascist Forties whose World War II still left enough time and energy to give us tape recordings, serious electronic and tape-based music, the LP, the first high fidelity recordings, and Frank Sinatra; the reactionary Fifties, the period in which the bulk of the great musical classics of 500 years was recorded for the first time—and much of it for the second, too, since it was also the decade that gave us stereo.

During the Sixties music permeated a rising generation's life-style, rock permeated music, and social and political protest permeated rock. The traditionally American pop bastion was not only breached by the British—particularly the Beatles—but overrun. Drug-taking became socially acceptable among the young, and whether one joined the various activist movements aimed at, and a luxury of, our affluent society, or associated the Sixties with the Chinese curse "May you live in interesting times," it was an era of excitement. In home entertainment, tape recording became a ubiquitous practice via cassettes and the once elite FM medium became both stereo and "just radio."

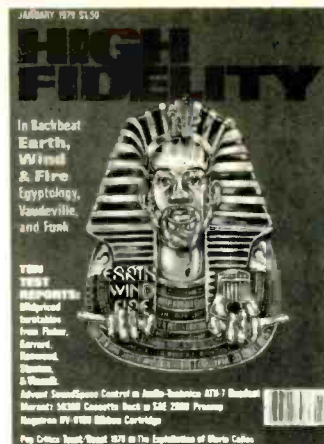
But what of the Seventies? From here, it seemed like a leftover decade. The generation that marched to the banner DON'T TRUST ANYONE OVER THIRTY was now pushing forty. The Vietnam war, then Watergate, ended up uniting the country, in unanticipated ways, and former protesters became the corporate society's young executives. Nostalgia—for the dull Fifties, of all eras!—was rife. Rock, left over from previous decades and with no lasting infusion of vitality in the 1970s, could only come up with wall-to-wall disco and floor-to-ceiling punk. Rather, along with a social and political move to the right, the old-fashioned flavor of country music broadened its appeal to both urban and rural folk. And David Bowie was singing duets with Bing Crosby.

In the classics, too, the major record companies began culling encyclopedias for leftovers: the unknown operas of Massenet, the forgotten symphonies of Haydn and Mozart, and it was no longer enough to be familiar with Verdi's masterworks, you had to know the secondary early operas as well. But recordings of music by living composers? Fewer and fewer as the decade wore on.

The major audio "revolution" of the 1970s, quadriphonic sound, came and went, and what was left over were leftover problems: To buck the tide of poorer-quality discs, specialty companies arose to produce expensive "audiophile" recordings. Accessories—from cleaning devices to speaker cables—often generated more excitement than the subtle innovations in basic components. In fact, componentry had become so good that most advances seemed tangential. Digital and microprocessor technology came as easily to audio as to sewing machines, and quad's legacy, the time-delay unit, became the decade's hottest new product.

As for me, I can't wait for the Eighties.

Leonard Marcus



Painting of EWF's Maurice White as King Tut by Phillip Slagter

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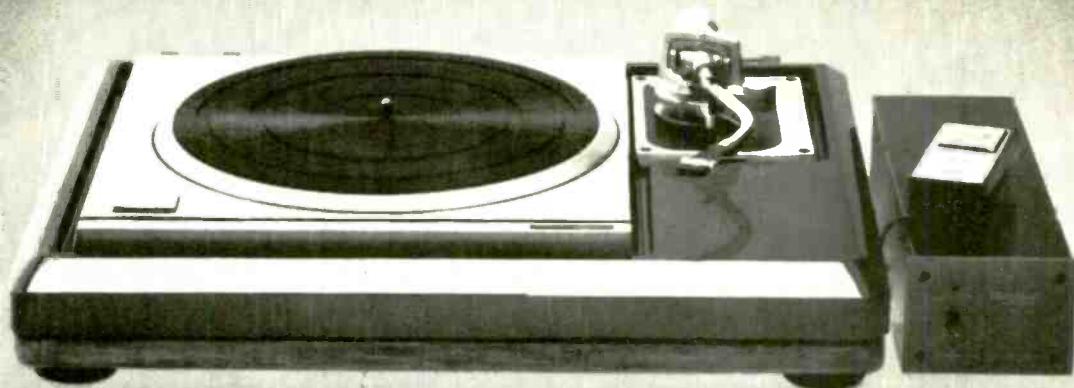
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Now you can have something in common with FM stations. This Technics turntable.



Technics SL-1000MK I. The advanced player system with the professional direct-drive system of the Technics SP-10MKII.

It's expensive. Because the combination of materials, craftsmanship and technology is rare. And, until now, unavailable. Like the obsidian lava base. One of the highest density materials known to man. And one of the best solutions known to feedback.

Or the world's first nitrogen-hardened titanium tonearm. The same rigid titanium nitride developed for aerospace. It's less than 85% the weight of aluminum. With far better vibration characteristics.

Another impressive achievement in tonearm design is the ultra-sensitive suspension. Five ruby ball bearings in four anti-shock pivots. With one-fifth the friction of conventional ball bearings. And with Technics unique variable damping you can customize the tonearm to virtually any cartridge.

The heart of the SL-1000MKII is the quartz-locked direct-drive system of the SP-10MKII. The system used by many of America's leading classical FM stations. Because of its unsurpassed

accuracy, unrivaled torque and incredibly fast stop/start action. And you can turn on this performance from your listening position. With Technics' "black box" remote control.

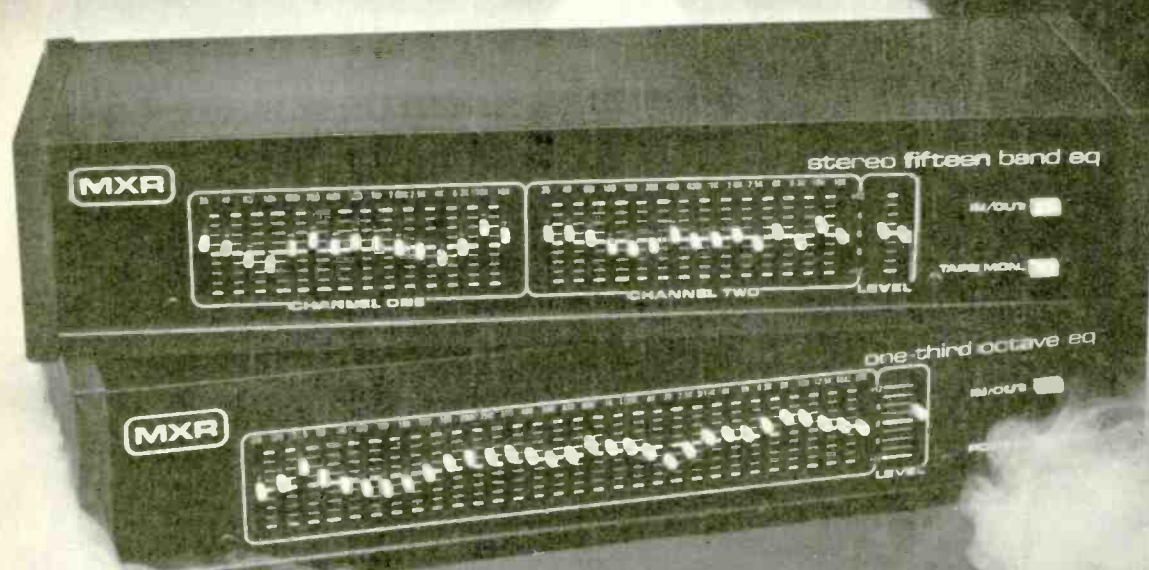
Technics SL-1000MKII. A unique combination of technology for the audiophile who demands the ultimate in turntable performance. Compare specifications and you'll see why there's no comparison for Technics SL-1000MKII.

MOTOR: Brushless DC motor; quartz phase locked servo circuit. TORQUE: 6 kg·cm. BUILDUP TIME: 0.25 sec. (25° rotation), to 33 1/3 rpm. BRAKING TIME: 0.3 sec. (30° rotation), from 33 1/3 rpm. LOAD FLUCTUATION: 0% up to 4.3 lbs. in. SPEED DRIFT: ±0.002%. WOW AND FLUTTER: 0.025% WRMS. RUMBLE: -78 dB (DIN B). TONEARM TYPE: Variable dynamic damping universal. FRICTION: 5 mg. (lateral and vertical). EFFECTIVE MASS: 22 gm. with 6.5 gm. cartridge and 1.25 gm. tracking force.

The Technics quartz-locked SL-1000MKII. A rare combination of audio technology. A new standard of audio excellence.

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Professional Series

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The Stereo Fifteen Band Eq is an expanded version of our popular ten band Stereo Graphic Eq. With two channels each having fifteen bands spaced $2/3$ of an octave apart, you have even more creative power for bending, shaping, and changing the sound. No matter how fine your home component system is, problems such as poor room acoustics or program quality may occur. The Stereo Fifteen Band Eq gives you the control to create the exact sound you desire.

The One-Third Octave Eq goes even further in providing precision control over your system's sound. A single channel unit,

its thirty-one frequency bands are spaced $1/3$ of an octave apart to give you the most creative power available at any price.

Both units feature a range of -12 to $+12$ decibels on each band, high slew rate (7V/microsecond) and incredibly wide dynamic range (better than 100 dB). The eqs feature walnut side panels (rack mounting hardware also included) and are built with rugged, reliable MXR quality.

Hear them perform at a fine audio dealer near you, or write MXR Innovations, Inc., 247 N. Goodman St., Rochester, N.Y. 14607.

In all of creation, MXR keeps providing.

Also distributed in Canada by White Electronic Development Corporation, Ontario.

MXR Consumer Products Group

COMING NEXT MONTH

What Kind of Tape Will '79's Best Machines Use? We address this question, among others relating to tape recording, in our February issue. Most observers of the audio scene are aware that, what with metal-particle tape and digital recording lurking in the wings, current analog recording and its familiar tape formulations may not hold center stage for long. Larry Zide assesses the implications for the consumer. Associate Audio-Video Editor Harold A. Rodgers advises the car-stereo buff on **How to Make Tapes for Your Car**, and Bernard Jacobson delves into the fascinating musical mind of the Australian conductor **Charles Mackerras**. In **BACKBEAT**, William Kanner takes you on **A Night Out with a Mobile Disco DJ**, and Len Lyons assesses the remarkable staying power of **Chick Corea**. Plus regular columns, record reviews, and more.

SOLUTION TO HI-FI-CROSTIC NO. 41

G[EORGE] B[ERNARD] S[HAW]:
Our Theatres in the Nineties

It is an indecent subject, a cruel, gluttonous, drunken, disorderly, wasteful, disastrous, wicked, cadging, lying, filthy, blasphemous, and demoralising subject. Christmas is forced on a reluctant and disgusted nation by the shopkeepers and the press.

ADVERTISING

Main Office: Robert J. Ur Sr., Director of Advertising Sales, The Publishing House, Great Barrington, Mass. 01230. Telephone: 413-528-1300.

New York: ABC Leisure Magazines, Inc., 130 E. 59th St., 15th floor, New York, N.Y. 10022. Seymour Resnick, National Advertising Manager, 212-826-8381. George Dickey, 212-826-8383. Ruth Elliott, Eastern Advertising Manager, 212-826-6923. Classified Advertising Department, 212-826-8393.

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Los Angeles: ABC Leisure Magazines, Inc., 2020 Avenue of the Stars, Suite 245, Century City, Calif. 90067. Telephone: 213-553-2000. Andrew Spanberger, Western Advertising Manager. Janet Endrijonas, Associate Western Advertising Manager.

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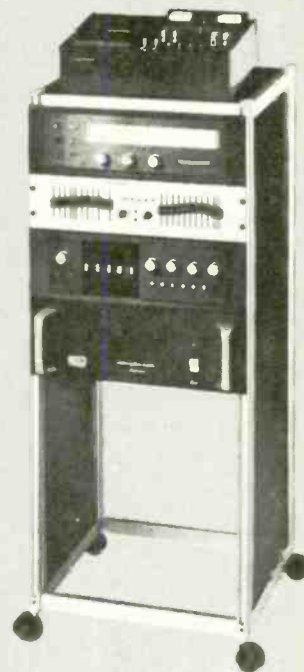
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In Canada: Superior Electronics, Inc. © Nikko Audio 1978

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the ProRack

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JBL's NEW L50: PERFECT GETS CLOSER.

JBL's newest three-way bookshelf loudspeaker is a happy blend of the ideal and the attainable. Here's how they met:

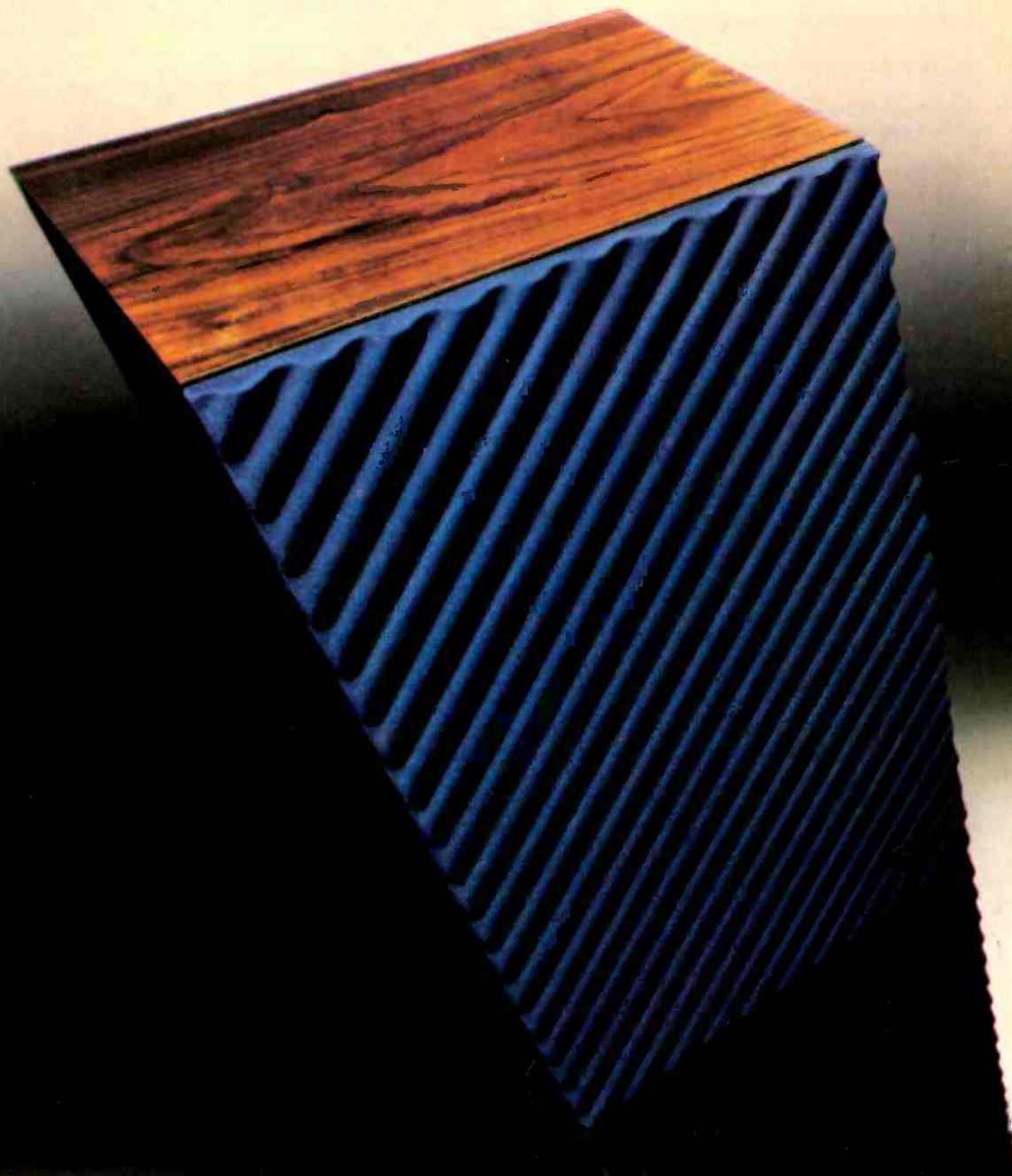
We built a superb system called the L212. It's an absolutely no-trade-off, state of the art, \$1,700 system that has redefined the upper limits of high performance sound.

Wouldn't it be great if we could build a loudspeaker that would sound as expensive but wouldn't be?

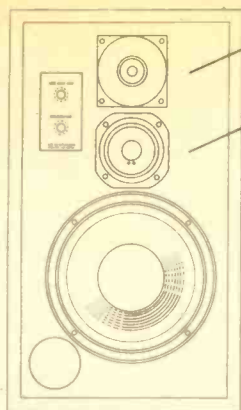
The answer's the L50. You can take a pair home for \$550. But before you do that, turn them on.

The sound is everywhere. No matter which way you turn you're in the center of the music.

Here's what's happening to you: You're learning the new geometry of sound. The third dimension: Bass guitar, left front. Saxophone behind. Drums deep in the middle. Lead guitar, front right. Flute behind. And the sound is never altered, colored nor caricatured.



High and mid-frequency level controls



1.4-inch tweeter

5-inch midrange

10-inch low frequency driver

Ducted port

The precise vertical alignment of the transducers insures near perfect stereo imaging.

The silent hero of the L50's smooth, seamless sound is the best crossover network you can buy—the same kind we put into our studio monitors.

If you like engineering reports, write us and we'll send you one on the L50. But specs aren't music. You owe it to your soul to hear the L50's. And be sure to ask for them by their first name: JBL. That guarantees you'll get the same craftsmanship, the same sound heard in leading recording studios and concert halls around the world.

Come hear the L50's. Come see what it's like to get close to perfect.



Rod Stewart's 1977 world tour sounded like this. The people who put this awesome system together are called TFA-Electrosound. And, as with most top concerts today, the loudspeakers are called JBL.

JBL

GET IT ALL.

QUALITY IN REVERSE

AKAI introduces automatic reverse record at popular prices.

Now instead of interrupting great moments in music when it's time to flip the cassette, AKAI's two newest decks automatically reverse the tape and continue to record or play back.

In addition, the deluxe GXC-735D is loaded with all the features that make the difference between a good deck and a great one. Things like AKAI's exclusive GX (glass and crystal ferrite) heads, guaranteed for 150,000 hours — the equivalent of playing 24 hours a day for 17½ years. As well as feather-touch controls, Dolby,* memory rewind, quick reverse and dramati-

cally recessed red/green illuminated VU meters. Not to mention the kind of specs serious component buyers all over the world depend on AKAI to deliver. (For the more economy-minded, there's the CS-732D. Same great auto reverse record/playback feature, with Dolby, quick reverse and tape selector — a lot of AKAI quality for not a lot of money.)

Hear them both at your AKAI dealer or write AKAI America, Ltd., 2139 E. Del Amo Blvd., P.O. Box 6010, Compton, CA 90224. And see how they can reverse your thinking about automatic recording.

GXC-735D: Wow/Flutter — less than 0.08% WRMS; S/N Ratio — better than 58 dB, weighted, at FeCr position, with peak level at 3% THD. Dolby on improves up to 10 dB above 5 kHz. Frequency response — 35-17,000 Hz (± 3 dB) using FeCr tape.

CS-732D: Wow/Flutter — less than 0.08% WRMS; S/N Ratio — better than 57 dB, weighted, at FeCr position, with peak level at 3% THD. Dolby on improves up to 10 dB above 5 kHz. Frequency response — 38-16,000 Hz (± 3 dB) using FeCr tape.

AKAI

You never heard it so good.

*TM, Dolby Labs, Inc.



The RFI Comedy

Leonard Marcus' September editorial "A Legislative History" [concerning proposed revisions to the 1934 Communications Act] interests me. I also hope and trust that what he calls "the present comedy" will not become a part of any new act. And I still hope the industry has sense and intelligence enough to recognize that the listening public and the viewing public are not going to put up forever with spurious signals, regardless of the source and of whether they can be prevented at the source or the point of reception.

I would suggest that this present comedy, as he sees it, can still be corrected without recourse to any federal regulations, even though there are regulations enough now; so please help us get on with the act.

Sen. Barry Goldwater
Washington, D.C.

The Editor replies: I think that Sen. Goldwater does indeed hope that "the present comedy"—which in my editorial alluded to his oft-stated intent "not to inhibit the design and performance of highest-quality products" as well as his hope that the hearings themselves will be enough to goad manufacturers into taking any necessary action—becomes part of the legislative history of any revision of the 1934 law. And by pointing out the conclusion of the hearings, the imminence of a revision of the act, and the implication that, if the industry does not do something, the government may, I think we have helped him to "get on with the act."

Koussy's "Heirs" Respond

All of Koussevitzky's Kinder thank whoever wrote the excellent article "Koussevitzky's 'Grandchildren'" [October] and Jean E. Mercier, who prepared the remarkable genealogy. The anonymous writer stated, however, that the Berkshire Music Center was in session in 1942, "but without a conducting class." This is incorrect, for that is the class in which I was an "active," along with Lukas Foss, Walter Hendl, and Robert Zeller. The genealogy did not list Zeller, who has lived and conducted in Rome (and some here at home) in recent years.

Frederick Fennell
Conductor in Residence
University of Miami
Coral Gables, Fla.

I am pleased and honored to be counted as one of Koussevitzky's "grandchildren," but I was listed with the wrong orchestra.

John Canarina
Drake University Symphony
Orchestra
Des Moines, Iowa

It was disconcerting to be omitted from the list of "Koussevitzky's 'Grandchildren.'" I do feel that I qualify for inclusion.

James Paul
Associate Conductor
Milwaukee Symphony Orchestra
Milwaukee, Wis.

Letters

The Editor replies: First, let me confess to being the anonymous writer in question. Second, my apologies to all those Kinder who were omitted from the genealogy. As I indicated, we limited the chart to "those conductors who either direct their own orchestras, who have made notable recordings, or who have otherwise come prominently to our attention." Had we listed everybody, the chart would have taken half the October issue. Thus the omissions of Maestros Zeller and Paul (although the former did, during the 1960s, have a few recordings on Westminster and Music Guild—mainly concerto accompaniments to violinist Robert Gerle). I even left out as not "prominent" enough that Bernstein student and splendid conductor of his "own" Stockbridge (Mass.) Chamber Orchestra: me. We did, however, omit one conductor who clearly qualified by our ground rules: James De Preist, a former Bernstein assistant, now music director of the Orchestre Symphonique de Québec.

The assertion that the BMC had no conducting class in 1942 came directly from the administration of the Center. But if I'd had my wits about me, I would have noticed that Mr. Fennell did indicate on his questionnaire that he was class-of-'42.

Speaker Cables—Round 2

Harold Rodgers' article "Exotic Speaker Cables: Cure with No Disease?" [October] is very interesting—and misleading. I don't doubt the results obtained by Diversified Science Laboratories, nor do I quarrel with Mr. Rodgers' conclusions. But in the matter of reduction of inductance, one more step should have been taken. That 16-gauge lamp cord with which the supercables were compared should have been pulled apart and its two conductors separated by three or four inches. Inductance would then have been greatly reduced, of course.

Out of curiosity, I separated the two conductors in each of my 12-gauge zip cord speaker leads by a few inches. I thought I heard a considerable improvement at once. I'm wary of such instant impressions, but after the passage of several days I'm able to say that there has indeed been a marked improvement in my speaker sound: It is obviously cleaner and smoother. I have to conclude that, in my 18-foot speaker wires, self-inductance is an important phenomenon that has an audible degrading effect on the sound and is easily done away with. In other words, there is a "disease" after all, but Mr. Rodgers didn't probe far enough to diagnose it.

Burnett Cross
Hartsdale, N.Y.

We have some questions about Harold Rodgers' article on exotic speaker cables. First, is the wavelength of 20 kHz really 9 1/2 miles? If so, is the ideal tweeter 4 1/2 miles in radius?

In an A/B comparison of a supercable from one prominent manufacturer and 16-



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CIRCLE 13 ON PAGE 99

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Wow & Flutter	0.03% (WRMS)	0.05% (WRMS)	0.05% (WRMS)
Rumble	-70dB (DIN B)	-65dB (DIN B)	-65dB (DIN B)
Price	Under \$240**	Under \$200**	Under \$180**

**Suggested retail prices optional with dealers.



Did Philips Compromise on Construction? No!

The aluminum platter and the specially designed straight, low-mass, tubular tonearm are mounted on a separate, shock-proof, free-floating sub-chassis – which is suspended from the main chassis by three nickel chromium leaf springs with butyl-rubber dampers. And that mouthful translates into superb acoustic and mechanical isolation, excellent tracking characteristics, and exceptional stylus and record protection.

Did Philips Compromise on Controls? No!

Project 7 Series turntables are all-electronic, all the way. On the Philips AF 877, for example, four reliable electronic touch controls provide quiet, convenient, vibration-free operation. There are separate touch controls for starting, stopping, reject and speed selection – all with LED indicators. One touch is all it takes. And when the record is completed, you don't have to touch anything at all. Because electronic (not mechanical) controls lift the tonearm and return it to its rest.



Nine LED indicators also monitor platter speed – and help you vary pitch – with pinpoint electronic accuracy. No more cumbersome checking of the strobe rings on the platter. And a convenient, built-in, accurate direct read-out stylus gauge makes stylus force adjustment as easy as turning the de-coupled adjustable weight on the tonearm. No extra gauges, gadgets, or paraphernalia needed.

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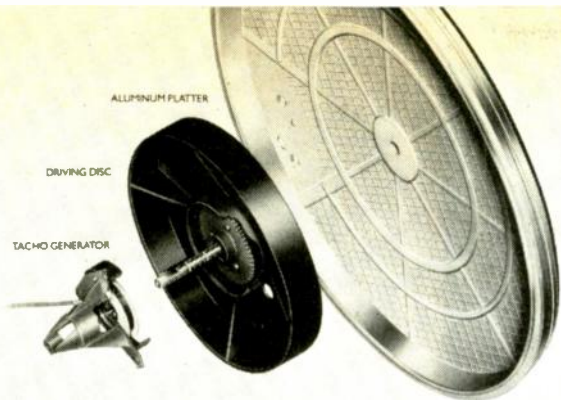
Four years ago Philips set out to build the best-performing, best-looking, best-priced turntables in the business. The Project 7 Series turntables more than meet all those goals. With no compromises.

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High Fidelity Laboratories, Ltd
CIRCLE 33 ON PAGE 99



The World's First No-Compromise Turntables.

These are the turntables audiophiles have been waiting for. The world's first turntables to combine the specs and performance of direct drive with the proven advantages and value of belt drive. That's right – the Philips Project 7 Series turntables have wow & flutter and rumble specs as good as the most expensive direct drive systems. And the acoustic and mechanical isolation of a belt drive. Philips even designed two new tonearms to be perfectly compatible with the new drive system.

The Project 7 Series opens up a new era in turntable performance – the no-compromise era. Because Project 7 turntables compromise on nothing. And because of the incredible Project 7 prices, you won't have to compromise, either.

Did Philips Compromise on Performance? No!

The heart of the Project 7 revolution is a 160 pole tacho generator that electronically monitors and controls the speed of the platter at the driving disc. Actually putting the driving disc right into the electronic feedback loop. This unique electronic Direct Control system means that variations in line voltage and frequency, variations in pressure on the platter, variations in temperature, even belt slippage – all have virtually no effect on platter speed. All Project 7 turntables maintain constant, accurate speeds – automatically and electronically.

Did Philips Compromise on Specs? No!

The wow and flutter on the Philips AF 877, for example, is a remarkable 0.05% (DIN) and 0.03% (WRMS). With a rumble figure of better than -70dB. No compromise there.



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CIRCLE 6 ON PAGE 99

gauge zip cord, we also detected no major difference. However, in an A/B comparison of the Lux WA-110 coaxial cable (manufactured by Mogami Wire Works), we have noted significant improvements in signal-to-noise, imaging, high-frequency detail, and overall "tightness" in bass response. Of course, the better the overall system, the more noticeable the improvement. Why didn't you name the products tested?

If an amplifier is tested and rated using a dummy load, and all speakers have impedance curves, what effect would the speaker cable have on the load the amplifier "sees"? Are you implying that speaker manufacturers should rate impedance in accordance with the speaker wire length and gauge being used?

Having used our ears and having heard significant overall improvements in our systems with the Lux cable, we wish you would give more than lip service to this simple and effective way of enhancing a good high fidelity system.

Sales and Management Staff
Seiden Sound
W. Springfield, Mass.

Mr. Rodgers replies: Mr. Cross's experiment is very interesting—and very mistaken. Separating the wires as he suggests increases inductance. It is clearly a case of poorly controlled listening tests.

As for Seiden Sound, since electrical energy propagates at the speed of light (actually a bit slower than that along a wire), not the speed of sound, the wavelength of a 20-kHz alternating current is 9¾ miles. You don't need a tweeter 4¾ miles across, but an antenna to radiate this frequency might have to be just that large.

Our testing was based on a random sampling of brands, which is our usual procedure—we cannot test all available models of a particular component. We omitted brand names because we found none of the products was able to deliver on the claims made for it.

We cannot state categorically that special cables will never make a difference in sound, but we believe that, when they do, it is because the amplifier doesn't like the load it sees looking into the loudspeaker crossover network through normal 16-gauge wire. In these cases, the additional capacitance of the special cable may be of benefit, but a small capacitor connected across the amplifier output will do the same job at a far more attractive price.

Can the purveyors of these cables provide a credible technical explanation of how they produce their supposed benefits? The contention that frequencies beyond the range of human hearing are better reproduced won't do.

A Faulty Connection

The viciousness of Gene Lees's "The Drug Connection" [October] is astonishing. What Lees is saying has almost nothing to do with drugs. Instead he mounts his podium to attack a music and perhaps a sensibility that he neither understands nor appreciates, using the topic of drugs as a springboard.

CIRCLE 21 ON PAGE 99 →

**No speaker close to its size
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If you thought the Infinity Qa was an incredible speaker—and an incredible buy at \$155*—wait till you hear our new Qe.

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Equally important, Qe has had built into it a year of sonic measurements, creative listening and critical adjustments by our scientist/musician designers, in order to optimize its sound for bookshelf rather than open floor space, and to create an unparalleled bookshelf instrument.

Test Qe with your most demanding records in an Infinity dealer's listening room. It will be a revelation. You'll hear orchestral colors, subtle nuance of inner voices and a sense of three-dimensional depth you've rarely heard from records.

Just 18 by 12 by 10 inches, the Qe speaks from 47 Hz through a spectacular 32,000 Hz ± 3 dB and can live happily ever after with amplifiers or receivers of from 10 to 100 watts of RMS power per channel.

A formidable achievement. And, at \$109*, a remarkable price.

A free call to 800-423-5244 (in California: 800-382-3372) gets you Qe literature and the name of your nearest Infinity dealer. Run, don't walk.

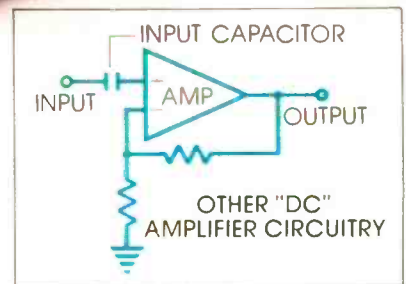
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The world's finest all have one



Sansui's unique DC

Sound quality is what your audio system is all about. So your new receiver or amplifier should, above all, offer you audibly better music reproduction than what you have now or might buy at a comparable price. That's why Sansui created its unique DC amplifier circuitry, which lets you actually hear and appreciate the difference.

Sansui's DC amplifier section (patent pending) is used in all Sansui DC integrated amplifiers and DC receivers, including the AU-717 and G-5000. Either way, your music reproduction will be cleaner, richer and more true-to-life than you have ever heard before.

LOWEST POSSIBLE DISTORTION

Sansui receivers and amplifiers have long been recognized for their distortion-free sound reproduction, virtually eliminating harmonic and intermodulation distortion. Now, Sansui's new DC circuitry enables us to conquer even subtler imperfections, such as transient intermodulation distortion (TIM), caused by time delays or "phase shifts."

FASTEST RESPONSE

Sansui's DC amplifier section is designed without input, output, or negative feedback loop capacitors to eliminate low frequency phase distortion. And our exclusive dual compensation circuitry gives the high-speed, high-frequency response to achieve most accurate reproduction of the most demanding musical transients.

The speed/response capabilities of an amplifier are measured by its rise time which, for both the G-5000 and AU-717, is a mere 1.4 microseconds, corresponding to a frequency response that extends from zero Hz (DC) to 200,000Hz.

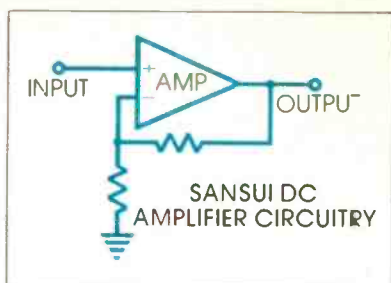
Slew rate tells you how large a transient burst an amplifier can handle. The G-5000 is rated to swing a signal level by 56 volts per millionth of a second, and the AU-717 is just a trifle faster: 60V/ μ sec.

The result of Sansui's unique DC design is audibly cleaner sound.

HUMAN ENGINEERING

In developing the most sophisticated amplifi-

receivers and amps thing in common:



amplifier circuitry.

ation circuitry in the world. Sansui has not neglected the features that make components fun to run — for we believe that your audio components should provide not only superb music reproduction, but also great creative versatility. Both the AU- and the G-series feature a full compliment of controls, logically arranged to make them a positive pleasure to operate.

THE G-5000 DC RECEIVER

Sansui's popularly priced G-5000 uses the same DC amplifier power design as Sansui's other, more costly models. It also incorporates our special new protective circuit that safeguards both your speakers and the G-5000 against mishap. Output is a usefully-powerful 45 watts per channel, min RMS, both channels driven into 8 ohms, from 20 to 20,000Hz, with no more than 0.03% total harmonic distortion.

THE AU-717 DC INTEGRATED AMPLIFIER

If your choice is for separates rather than a receiver, Sansui suggests the rack-mountable

AU-717 DC integrated amplifier. Our AU-717 has been acclaimed by the experts for its rare clarity of sound and for its superb versatility. Its DC power amplifier configuration means super-wide frequency response, with improved transient reproduction from the lowest lows to the highest highs. And the multitude of precise controls will meet your most sophisticated listening and recording needs. At 85 watts per channel, min RMS, both channels driven into 8 ohms, from 10 to 20,000Hz, with no more than 0.015% total harmonic distortion, the AU-717 is an unbeatable value for every music lover.

To hear the dramatically crisp and lifelike difference the AU-717 and G-5000 make, visit your franchised Sansui dealer today.

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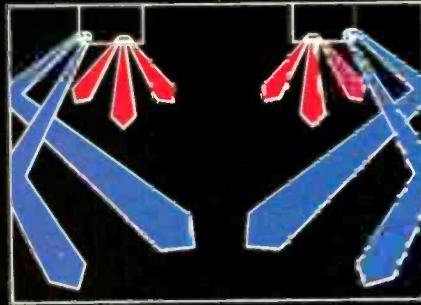
impossible from such a compact enclosure.

As a matter of fact, the Model 301 delivers a level of performance which simply astounds first-time listeners.

It could happen to you. Ask your Bose dealer to demonstrate the Model 301 against any bookshelf speaker, regardless of price.

Then ask him to demonstrate the Model 301 against even much larger speakers. In each case, you will hear an open, spacious sound that expands the confines of your listening room. Suddenly, you are in a larger, more open space, listening to music as if you were hearing it for the first time.

No other bookshelf speaker even approaches the spatial realism of the new Model 301. See your Bose dealer for a demonstration and hear what we mean.



The new Model 301.

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Lees seems to feel that the "almost universal" use of marijuana among jazz musicians was good, because he thinks jazz is Good, and he quotes the drug references in titles and lyrics with amused approval. On the other hand, to him rock music is Bad, and therefore the same drugs used in association with that music are bad. He quotes with approval a woman who notes she grew up among kids who blitzed their brains with beer (and went out with their cars and killed each other playing chicken) and regards with horror the next generation of young people, who got into "drugs" (is alcohol not a drug?) and—so his informant says—"are dead now." Marijuana kills! (But only rockers.) This kind of writing does not belong in the pages of HIGH FIDELITY.

Ted White
Falls Church, Va.

We call Mr. White's attention once again to the passage in the column in question that reads, "The jazzmen, and even the popular songs that made mention of drugs, made no attempt to convert the public to their use. In the 1960s that changed: The rock singers did precisely that. Code was still used, but it was a lingua franca of both performers and audiences, meant to be understood by the young people, but not by their parents."

For several years now, Gene Lees has taken every opportunity (whether appropriate or not) to blame all the ills of the world on rock music. Do we really have to go through that again? His arguments were specious the first time around, and they get more ridiculous with age. By extension of the loose kind of thinking Lees indulges in, we can pin not only the rise of Nazism and the extermination of millions of Jews on Richard Wagner, but also drug addiction, because Hermann Goering was a ferocious cocaine user. Don't blame poor little Bobby Zimmerman; he was a mere babe in arms when Hitler's atrocities were committed.

And please, Mr. Lees, don't tell me that the French don't understand drug references. French writers and musicians have long had a penchant for using drugs and relating their experiences with them.

Desist, already!

Cynthia Le Mat
Chapel Hill, N.C.

My congratulations to Gene Lees for his "Drug Connection" column. As he has done before, he has shown how cynical and selfish the popular-music industry is in the U.S. It is very courageous on his part—and the editors'—to place such ideas as these before the public.

Arthur Walling
Hamilton, Ont.

Schubert: Satisfaction . . .

I sympathize with Leonard Marcus' statement that he would like "someday . . . to hear a totally satisfying recording" of the Schubert C major Quintet. I appreciate even more his disappointment about renditions of the final movement; such has invariably been my listening experience also.

However, I have an old mono recording, c. 1950, of the quintet on Capitol (P 8133)

that I think will assuage his disappointment considerably. It is a supremely great performance by the Hollywood String Quartet, of which my parents were members. Of course, the last movement lacks a little something, but then, as he accurately suggested, all recordings of the movement lack a little something.

Frederick Zlotkin
New York, N.Y.

I want to thank the Editor for writing about my favorite piece of music in his editorial "Schubert: A Quintet" [November]. I have been waiting for quite some time for another person to express what I have felt for Schubert's great quintet ever since I first

heard it. This may become my favorite issue, and I own nearly every one since you began publishing in 1951.

William B. Weiss
Ocean, N.J.

. . . and Satiety

This happens to be the first year in which I can say to myself, "By the time Schubert was your age, he was dead—and what have you accomplished?" Evidently, it's also the year when HIGH FIDELITY is going to force me to find out exactly how much Schubert is enough to make me sick of him.

Lelia Loban Lee
Falls Church, Va.



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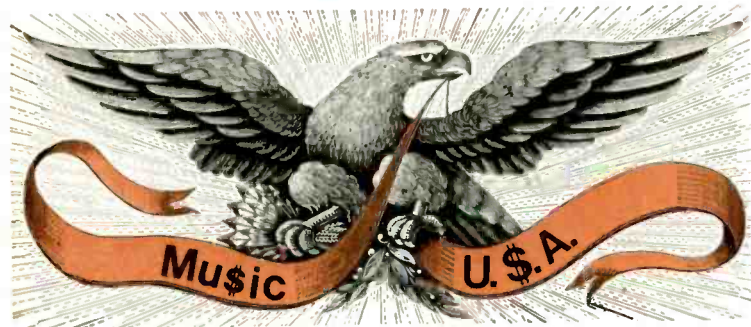
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21: War Songs II: Music Goes AWOL

by Gene Lees

WORLD WAR I was the watershed between the nineteenth and the twentieth centuries. To Americans war until then had been a faraway thing, tinged with romance. Though battles no longer took days or weeks to be reported in the press, they were still something people—before the advent of photojournalism—experienced only through gray and lifeless print.

But in the 1920s radio arrived, and by World War II we were getting our news within hours, delivered by the emotion-filled living voices of H. V. Kaltenborn, Gabriel Heatter, and Eric Sevareid. Indeed, we sometimes got it even sooner and more vividly: In some of Edward R. Murrow's broadcasts from London, we could hear the bombs falling and, because of radio's effect on the imagination, could "see" them raining down on working men and women like ourselves and on children like our own.

The movies, too, made war vivid. Though Hollywood touched up war's face with cosmetics, the newsreels did not. Those were real dead bodies lying there and real tanks burning in the North African desert, and the weariness and pain of those dirty GIs trudging up the hot, dry roads of the Italian peninsula was almost palpable.

And the new journalism continued to make it all the more real. Nobody who saw it can forget the *Life* magazine photo of a dead American soldier half-buried in the sand of a nameless Pacific atoll, the uniform on his bloated body sprinkled with maggots. So that's what war is like! Whereas

Richard Harding Davis, the prominent correspondent of the Spanish-American War, faithfully disseminated Teddy Roosevelt's deceptions, the much-loved Ernie Pyle, chronicler par excellence of World War II, told the story of the GI's war, the pain, ignominy, and death of it.

The media were taking all the fun out of war, and it would have been just about impossible to sell the public a cheerful image of it in song. Oddly enough, it was from the North African campaign that we got one of the few songs that were genuinely popular with the troops. And odder still, the song was German—"Lili Marlene." The British first heard it on German radio and, in a translated version, adopted it as their own. From there it spread through the Allied forces. It was a sad song, let us note, and it seemed to express the regret of troops on both sides of the line.

Then a curious thing happened—or rather, didn't happen. The Korean War came and was virtually ignored by Tin Pan Alley. It did produce one song, "Dear John," about a soldier who receives word that his woman is going to marry someone else.

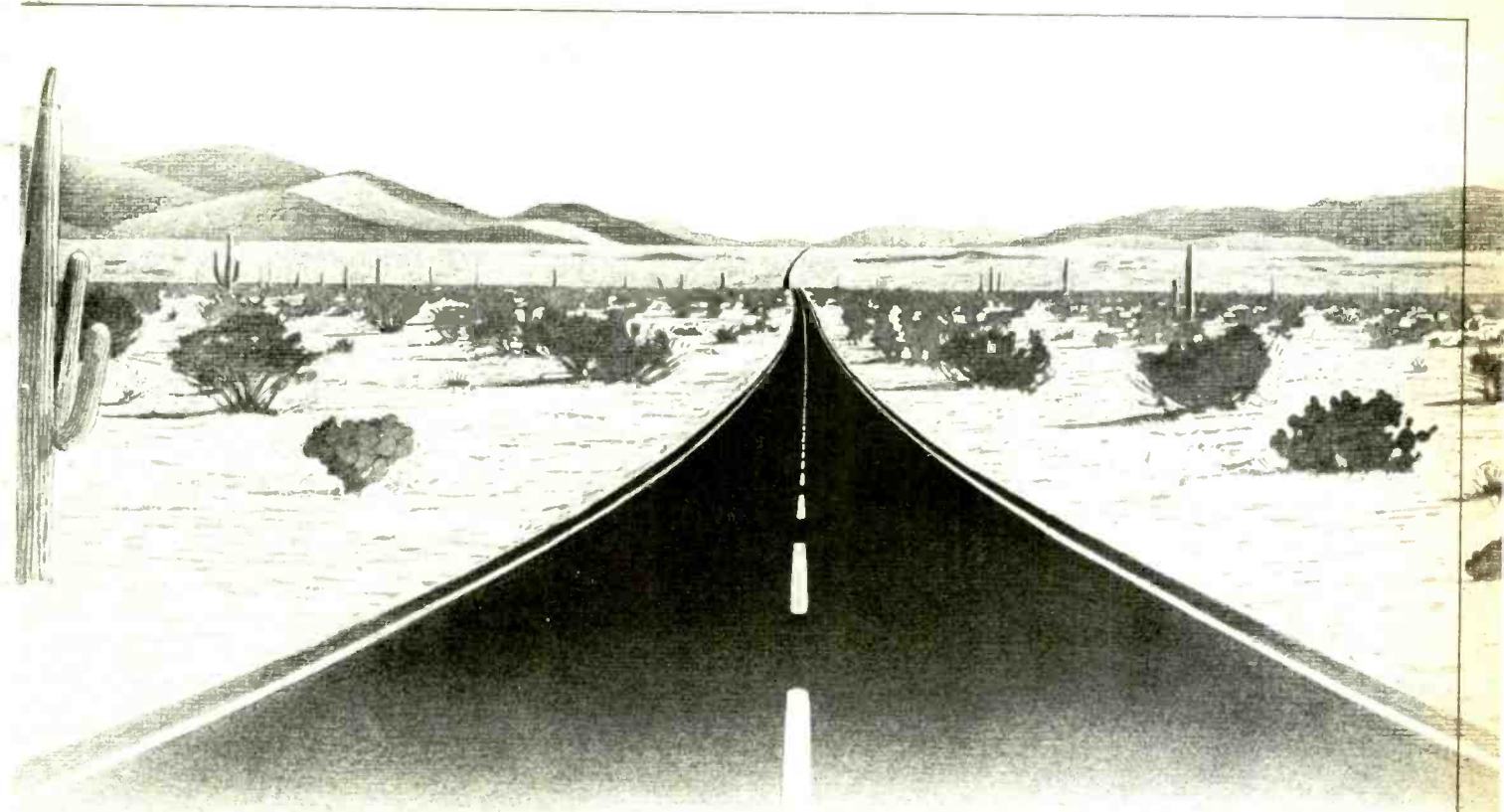
Whereas the U.S. had joined both world wars late, Korea erupted suddenly, and the propaganda machine had no chance to prepare the public. Besides, World War II's end was only five years in the past, and people were clinging to peace. We went to Korea achingly.

Then came Vietnam, the most thoroughly reported war in history. By now every home—indeed, nearly ev-

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You're aware of Mitsubishi audio component systems for your home as well as the superior quality, performance and design that goes into them.

Now Mitsubishi engineers have followed through with that same "separate components" premise, and we now want you to be fully aware of our new component systems for your car.

Start with the CV-21 Power Amplifier and the CJ-20 FM Tuner. Then choose the CX-21 Auto-Reverse Cassette Deck or the CX-20 Cassette Deck. Add up to six speakers including a pair of SX-30 two-way Alumi-Die Cast Enclosed

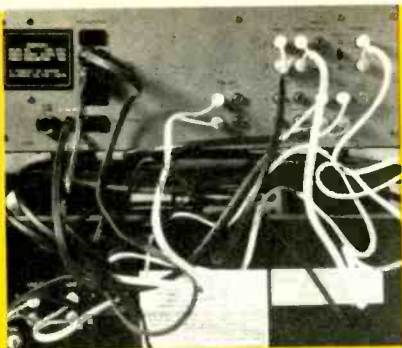
speakers for a total car audio system worthy of the name Mitsubishi.

Now a word about "specs"... we have always believed in rating our equipment's performance conservatively. Only you benefit from this caution. "Sound us out" before you buy any other car stereo system. You'll be miles ahead with Mitsubishi.

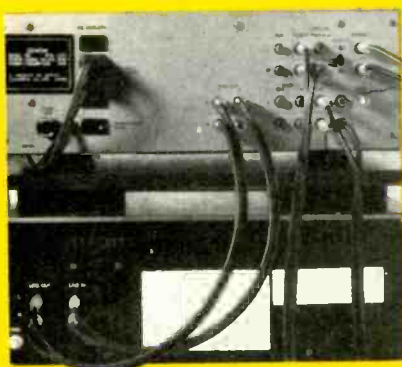


A complete line of components, in-dash/under-dash units and speakers await you at select audio and car audio dealers. Check the list adjacent to this ad for the Mitsubishi Car Audio dealer nearest you

 **MITSUBISHI[®]**
CAR AUDIO
SOUND US OUT




YOUR RACK'S TANGLE HAS A CURE:



NEW HALF-METER GOLD-ENS™

- No hanging patch cords from stacked components.
- Reduces RF interference and hum.
- Superior quality Gold-ens have multi-strand hot and shielded leads.
- Molded nylon covers over individually soldered connections.

 **discwasher, inc.**
1407 N. Providence Rd.
Columbia, Missouri 65201

ery hovel—had television. And motion-picture crews were swarming over Vietnam, with still photographers right beside them. A GI gave a flip of his Zippo lighter and touched the flame to the thatched roof of some peasant's pathetic home, and a cameraman caught it. The Saigon police chief put a pistol to the head of a prisoner and killed him, and a cameraman caught it. Agents of the CIA dropped a prisoner out of a helicopter, and a cameraman caught it. A child was burned during a napalm bombing, and a cameraman caught it. The illusion that only the enemy is cruel, that our boys and allies are endlessly benign, died along with the casualties. War was seen to be exactly what Sherman called it, and Hell was a vividly ghastly place. The voices justifying the U.S. presence and participation in the war gradually fell silent as the evidence of the pictures, moving and still, came to us day after day and night after night.

It was inconceivable that the public would accept a song with the style and sentiment of "Over There" under such conditions. Not that the music industry wanted it to: The popular-music world was instinctively anti-war anyway.

For the first time in U.S. history, nearly all the songs were antiwar songs, like "The Eve of Destruction" and Joan Baez's "Saigon Bride," about a soldier who marries a Vietnamese girl and begins to feel guilt for killing her people. Satirist Tom Lehrer turned out murderously mocking songs, such as "Who's Next?" (about the spread of nuclear weapons), "So Long, Mom, I'm off to Drop the Bomb" (which he called "a bit of pre-nostalgia" for World War III), and "Send the Marines," satirizing the tendency to military intercession. Lehrer's viewpoint was hardly a popular one when he first expressed it, yet within a few years it would find its echo in speeches of even some conservative politicians.

The most powerful voice in popular music was that of Bob Dylan. All of his songs—broadsides, really—were anti-Establishment, some of them harshly so. But it was one of his gentler tunes, "Where Have All the Flowers Gone?," that became the theme song of the war. Far beyond the specific content of its lyrics, it was a general lament for human folly and destructiveness. On July 4, 1969, I happened to be in Montreux, Switzerland, where the townspeople had arranged a lakeshore bonfire party for visiting American students. In the glow of the flames, they sang. What

did they sing? "God Bless America"? No. They sang "Where Have All the Flowers Gone?" at least three times in the course of the evening. Such was its power.

The effect of the anti-Establishment and antiwar songs in the 1960s is impossible to judge. Yet the North Vietnamese and Viet Cong had no need of World War II's Lord Haw-Haw and Tokyo Rose. The folks back home were doing the job themselves. A naval officer who had been stationed off Vietnam put it this way: "The Armed Forces Radio station in Tokyo was playing the same stuff the civilian stations were playing back home. And it was heavily antiwar and antimilitary. They were beaming it right in to front-line combat troops, and believe me, it had one hell of an effect. One record could influence the performance of an entire fighting organization."

Back home the consumers of popular music, born during and after the Second World War, constituted a large proportion of the population. At the age when the yearning to be part of their peer group is strongest, seeing each other every day in classrooms and corridors, listening every day to the same disc jockeys, they were a remarkably easy group to reach and influence. A record could be released one week, be known to most young Americans the next, and sink into their subconscious within a month. No printed publication has anything approaching that kind of power to shape opinion.

Asked why men go to war, T. E. Lawrence said, "Because the women are watching." This new medium of propaganda told not only the young men that war was wrong, but their women as well. Even if a young man's father was a veteran of World War II, proud of his service and apoplectic over his son's refusal to serve, the boy had the moral backing of his peers, favorite disc jockey, and girlfriend.

When Eugene McCarthy began his campaign to wrest the presidential nomination from Lyndon Johnson, with the war as the main issue, the young people formed the most important element of his constituency. They cut their hair and shaved and, "Clean for Gene," went to New Hampshire to help him win the 1968 Democratic primary there. Johnson decided not to run again. It is doubtful that it ever occurred to him that he might have been evicted from the White House not so much by McCarthy as by a group of cameramen—and a songwriter named Bob Dylan.

I will examine the relationship between music and propaganda in the next column.

THE JVC QUARTZ-LOCKED TURNTABLE.

First we invented it. Now we've made it more precise than ever.

The turntable evolution comes full swing with the introduction of the new Quartz turntable series. We introduced the first quartz-controlled turntable in 1974, and we've been improving our designs ever since. Including:

Super Servo Frequency Generator

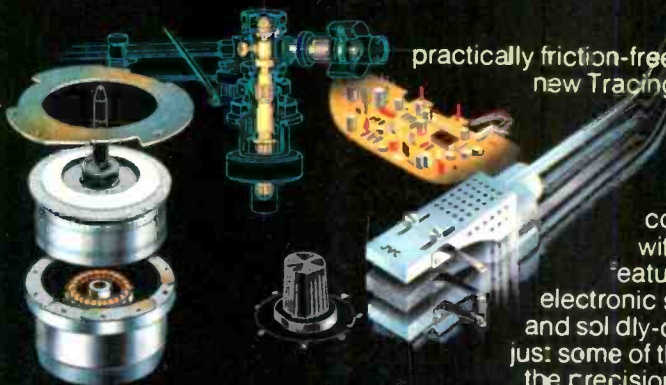
To detect minute variations in platter speed, and send corrective information to the electronic circuit controlling turntable rotation, it provides near-perfect speed accuracy. And, our Super Servo is factory-set for years of accurate, dependable use.

Direct Drive DC Servomotor

For quick-start/stop and high-torque operation. Our powerful motor drive system and its companion speed-monitoring circuits reduce wow-and-flutter and speed drift nearly to the vanishing point.

Gimbal Support and TH Tone Arm

Our exclusive unipivot gimbal support holds the tone arm firmly, yet is



practically friction-free. We also developed a new Tracing Hold (TH) tone arm to provide stability and tracing accuracy needed for a cartridge to follow even the most complex record grooves without error. These, plus features like digital readout, electronic switching mechanisms and solidly-constructed bases, are just some of the reasons to consider the precision of JVC's Quartz-Lock series for your music system.

And you can choose from manual, semi-automatic or totally-automatic models—JVC's most comprehensive turntable line ever.

See them at your JVC dealer soon. JVC America Company, Div. of US JVC Corp., 58-75 Queens Midtown Expwy., Maspeth, N.Y. 11378. Canada:

JVC Electronics of Canada, Ltd., Ont.

JVC



QL-A7



QL-F4



I have been collecting classical recordings for more than ten years and, like everyone else, have purchased the entire range of quality from mediocre to superior. Now I fear I may have stumbled onto yet another threat to buyer satisfaction. I purchased "Luciano Pavarotti: World's Favorite Tenor Arias" (London OS 26384) from a reputable record shop. When I opened the package, I noticed the dust liner was turned to the open side of the album. Moreover, someone had made notations in pencil of surface defects at the corresponding place in the texts. When we assume we are getting factory-fresh merchandise, it is pretty discouraging to have such deceitful practices thrust on us by companies of Decca-London's stature.—Scott A. Merrill, Chillicothe, Ohio.

We feel certain that Decca-London is not to blame. Next time you're in a record store, take a peek into the back room. We bet you'll see facilities for shrink-wrapping albums—including, if the management is so inclined, those that have been returned for one reason or another.

My sound system consists of a Sony STR-6800 receiver, Sony TC-650 tape deck, Sony PS-3300 turntable with an Audio-Technica AT-14Sa cartridge, and two Sansui SP-2000 speakers. Six months ago I added a DBX Model 118 dynamic-range enhancer to my system and have had nothing but problems since. I have gone through six tweeters and don't know why.

My DBX instruction manual contains cautions about potentially dangerous oscillation if recording on the tape deck with the function switch of the receiver in the AUX position. I have never recorded when the receiver function switch was in the AUX position! But since I have tapes with different program material on each channel, I naturally want to listen to one channel but not the other. To do this with my tape deck it is necessary to flip a deck monitor switch into the SOURCE mode during playback. When that is done, the "off" channel's VU meter pegs the needle to the right. Is it possible that the dangerous oscillation can also be caused by doing this? I did have the receiver function switch in the AUX mode, but

was not recording. If this is the problem, then isn't the manual's warning misleading, not taking into account this possibility?—William Tsarones, Elyria, Ohio

Six tweeters? That should get you the Persistence Award for 1978. What you have done is to neglect the fact that when the tape recorder is switched to SOURCE, signal is fed through it just as surely as if you were recording. Thus, when you flipped the receiver switch through AUX, you set up exactly the sort of feedback loop that DBX warned you about. The final sentence in the second caution notice advises that you turn down the amplifier control when first playing a tape, just in case there is feedback. Had you done this, your tweeter would have, in all likelihood, survived. And had you considered the danger of feedback (as a prudent user of a complex interconnection would do), the loud and clear warning shouted by the pegging VU meter would have enabled you to save the last five tweeters. Sorry, this looks like pilot error to us.

Will using a Watts Dust Bug, the Discwasher cleaner, and Sound Guard preservative—each according to directions, of course—damage my records?—Barrett Whitene, Gastonia, N.C.

We see no reason why it would.

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

YOU SHOULD EXPECT MORE FROM THE PHASE 4000 SERIES TWO.

Even if you're made out of money, you'd be hard pressed to buy more preamp.

The Phase 4000 Series Two goes way beyond the boundaries of conventional preamps. First, the 4000 processes and amplifies your music without introducing any significant noise or distortion. Then it actually compensates for losses in dynamic range and signal-to-noise ratios that occurred way back in the recording process!

To prevent overloads, studios "peak limit" the high-level attacks common in today's music. The 4000 Series Two has highly advanced circuits to read peak limiting, and immediately restore the dynamic range. The combined overall dynamic range is increased by 17.5dB. So when Charlie Watts hits a cymbal, it sounds like a cymbal!

The 4000 Series Two also spots low level gain riding, where the recording engineer

adds volume to a low signal to overcome noise on the master tape. The Downward Expander immediately expands the dynamics, so you hear the bass as the conductor called for it, not as the engineer delivered it.

The 4000 Series Two second generation Autocorrelator reduces record hiss, tape hiss, and FM broadcast noise. Weighted overall noise reduction

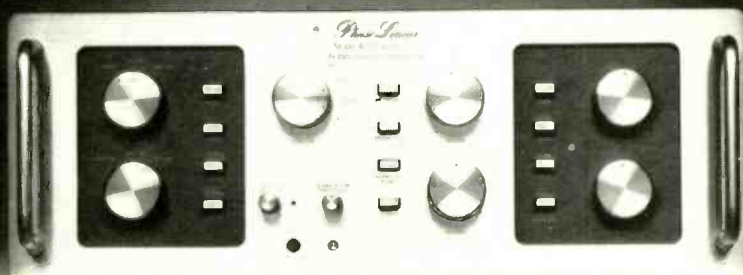
is -10dB from 20Hz to 20kHz. So your music comes clean, and the background is silent.

The 4000 has two new RIAA phono stages which eliminate low level switching and reduce hum and CB interference to a minimum.

Tape monitor and dubbing circuits allow copying between decks, while listening to a third program source. There's a separate direct coupled (OCL) Headphone Amplifier. An infrasonic filter eliminates audible effects caused by rumble.

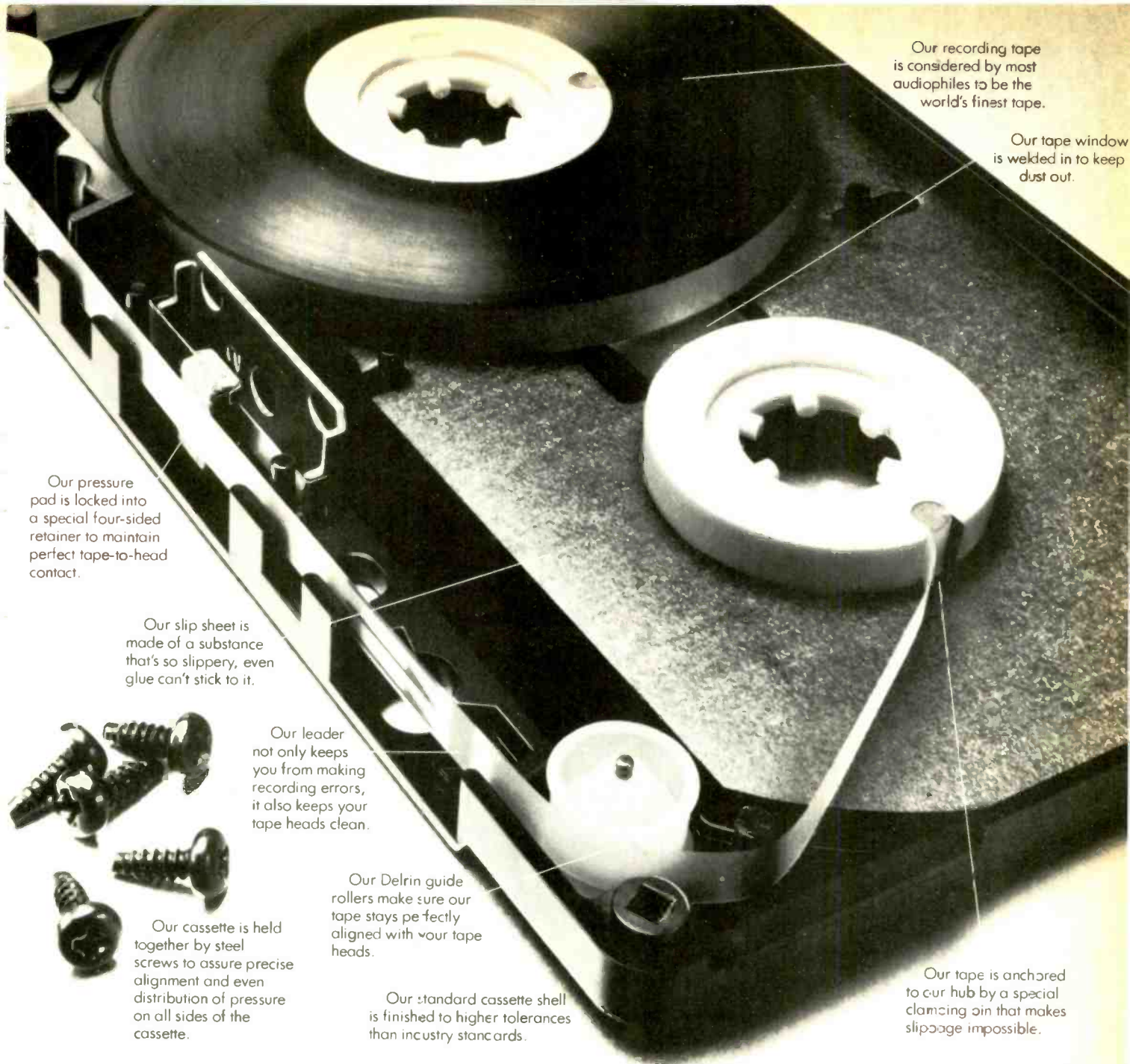
We could go on forever, but you get the point. The Phase 4000 Series Two. It's waiting for you at your Phase dealer.

AND YOU GET IT.



Phase Linear
THE POWERFUL DIFFERENCE

Phase Linear Corporation
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Lynnwood, Washington 98036



Our recording tape is considered by most audiophiles to be the world's finest tape.

Our tape window is welded in to keep dust out.

Our pressure pad is locked into a special four-sided retainer to maintain perfect tape-to-head contact.

Our slip sheet is made of a substance that's so slippery, even glue can't stick to it.



Our leader not only keeps you from making recording errors, it also keeps your tape heads clean.

Our cassette is held together by steel screws to assure precise alignment and even distribution of pressure on all sides of the cassette.

Our Delrin guide rollers make sure our tape stays perfectly aligned with your tape heads.

Our standard cassette shell is finished to higher tolerances than industry standards.

Our tape is anchored to our hub by a special clamping pin that makes slippage impossible.

There's more to the world's best tape than the world's best tape.

Our reputation for making the world's best tape is due in part to making the world's best cassettes.

and more work into our cassettes than most manufacturers put into their tape.

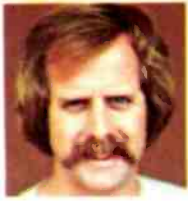
we believe in a simple philosophy.

To get great sound out of a cassette takes a lot more than just putting great tape into it.

In fact, we put more thought

We do all this, because at Maxell

maxell



“ About the only thing I have that's better than a Koss Pro/4 Triple A are some extremely expensive electrostatics. ”

David Driskell
Audio Salesman
Los Angeles, California

“ I think the Pro/4 Triple A sounds really similar to an electrostatic headphone, very crisp, very good in the midrange and the highs, yet very dynamic and full in the bass. ”

There are few stereophones of any kind that can match the full-bandwidth sound of the new Pro/4 Triple A. That's because the Triple A's oversized voice coil and extra large diaphragm reproduce recorded material with a life-like intensity and minimal distortion never before available with dynamic stereophones.

“ If there's any clipping, it's in your amp. ”

With a frequency response from 10Hz to 22KHz, a highly efficient element and a perfect seal for low bass response to below audibility, the new 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 record.

“ The pneumalite ear-cushions do three things; they're a lot more comfortable, they eliminate listening fatigue, and they develop a deep, clean bass response. ”

What more can we say except that the unique dual suspension headband makes the Triple A one of

the most perfectly fitting, perfectly comfortable stereophones you'll ever slip on.

“ I talk a lot about the private listening experience. Especially with couples where she wants to watch a TV program and he wants to listen to Bach. They can be together and still do their own thing. ”

One of the beautiful things about the Sound of Koss stereophones is that

you can listen to your favorite music at any volume without disturbing anyone else. And that's beautiful.

“ The workmanship of the Triple A is beautiful. Even the inside which most of my customers never see is very machined, very precision made. ”

Why not stop by your audio dealer and take a good, long look at the new Koss Pro/4 Triple A. And while you're there listen to the Koss CM line of loudspeakers. They're in a class by themselves, too. Or write c/o Virginia Lamm for our free full-color catalogue. Better yet, listen to a live demonstration of the Sound of Koss with your own favorite record or tape. We think you'll agree with David, that when it comes to the Pro/4 Triple A, and other Koss stereophones and speakers: hearing is believing.

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KOSS® stereophones/loudspeakers
hearing is believing™



**Matti
Otala
Joins
Harman
Kardon**

We all knew Matti Otala by reputation: the "inventor" of transient intermodulation distortion and, more recently, interface intermodulation distortion, and—through the studies that led to and grew out of these considerations—a major force in shaping modern amplifier circuit design. We met him for the first time at a Harman Kardon press lunch to announce his association with that company, on leave from his post as the director of the Electronics Laboratory of the Technical Research Center for Finland. Dr. Otala turns out to be a personable gentleman with a certain professorial flair, no doubt acquired during his years at the University of Oulu. His command of English (and, evidently, several other languages) is excellent, and he speaks persuasively on many topics.

His remarks on the complex relationships among acoustics, perception, and engineering methods, and on the ease with which an inexact conception of these relationships can mislead, might be summed up in his dictum: "Do what you know is right, and at the same time respect the unknown." Want of adequate respect for the unknown, he says, accounts for the failure of formulas to deliver promised results—whether in circuit analysis or in concert-hall design. Now, with the Citation line at Harman Kardon, Dr. Otala will be applying his laboratory work to produce marketable amplifiers.

Telefunken's High Com

While we were at the Düsseldorf Hi-Fi Show we were fortunate enough to attend a very comprehensive lecture/demonstration of Telefunken's new compander system, known as High Com. "Compander" is, of course, short for compressor/expander—dynamic-range compression in advance of recording and reciprocal expansion in playback being the basis of tape noise-reduction systems. The historic Achilles' heel of compactors is their tendency to cause audible modulation of any background noise, an effect known as "breathing." To combat this, some systems (such as Dolby A and B and Telefunken's professional system, c4D) split the signal up into separate frequency bands for processing; others (DBX, for example) apply complementary pre-emphasis and de-emphasis before and after.

High Com uses neither of these techniques. It relies, instead, on straight full-range 20-dB compression/expansion and a very rapid attack time (on the order of one microsecond). The unit is said to be relatively immune to small frequency-response errors in the transmission channel and does not require that input and output levels be matched. In addition, it can be set to give only 10 dB of noise reduction and in this mode is compatible with Dolby B.

But that's not the whole story. One very interesting property of the system is what happens when the compressed sig-

nal is played back undecoded. In most compactors, the result varies from barely tolerable to unlistenable; with High Com, it was hard to tell that the signal had been processed.

Telefunken intends that the primary application of High Com will be in cassette recorders (the circuit is available as an IC) but showed that it is applicable to FM broadcasting and discs as well. Nakamichi, one company that seems interested in the new compander, showed prototype cassette decks incorporating it at the Consumer Electronics Show last summer.

An Open Letter to Joel Tall

Dear Joel:

Because of your long professional involvement with tape recording (and we regard the Editall block simply as a by-product, if a very familiar one, of that involvement), we have read with more than usual care your recent correspondence on the subject of tape/deck matching. Since you have addressed it to several publications in addition to HF, and since we agree that it is a subject of much importance to our readers, we are adopting this form of reply. And while we see hope of improvement (via an effort in which we plan to participate), we agree that, short-term at least, we are faced with chaos.

We also agree wholeheartedly that the owner of a high-performance cassette deck—indeed, even of a modest-performance model—is hamstrung if he or she can't discover what tapes will deliver the performance level that has been paid for. We would go farther. If the deck manufacturer makes performance claims—which are recognized legally as part of the implied warranty—but refuses to give the customer adequate information about the tapes that will deliver that performance level, it is, in effect, offering a product that will not live up to the claims. We realize that this is a serious charge; we also realize that the Federal Trade Commission has moved in (at untold cost to the consumers it purports to defend, in some instances) on less provocation in the past. But we believe it important that the point be made.

When you imply that the root cause is want of information from the tape manufacturers, however, we beg to disagree. No matter how much technical information about its products a tape manufacturer may cram into its literature, the consumer has little or no way of translating the data into terms that relate to his equipment. Nor can the tape company itself do so. Quality-control standards and deliberate changes in final adjustment at the factory will influence how the deck will perform with a given tape formulation, and the tape manufacturer has no control over—or, often, intimate knowledge of—these factors.

Most tape companies do extensive testing of their products on actual consumer equipment, which helps; in particular, such testing encourages the development of tapes to complement existing equipment, as opposed to delivering new tapes with theoretical advantages that can't be realized by the vast majority of recordists. Some companies take care to indicate any change in formulation (as "new and improved," though with some decks there may be consequent losses, as when a tape's high end develops a peak because it has been made hotter) on the packaging, which at least alerts the aware user that performance of the new version should be re-examined.

(more)

And all the major tape companies try (not always with success) to work closely with the hardware people for best possible tape/deck matching.

This last actually is part of the problem—as well as of the solution. For the last few years, these liaisons have been carried out in a spirit of back-door diplomacy. The tape people are aware that the standard of the industry for many years was Scotch 111 and that the 3M Company (then Minnesota Mining & Manufacturing) derived immense commercial benefit from the fact. Deck manufacturers designed for 111; instruction manuals assumed its use; magazines like HF tested with it; consumers consequently bought it in vast quantities. While Scotch 111 had been outstripped in a number of respects before the cassette became current, the emergence of TDK's SD as a comparable "standard," followed by that of Maxell's UD, made it obvious that the route to acceptance in the consumer market was via the deck manufacturers' design laboratories. And here we had better cool it with brand names—not out of deference to touchy commercial sensibilities, but because those faults we find (among tape and deck manufacturers alike) are so widespread that to single out exemplars is to let the majority of offenders off the hook.

Not long ago, we tested a new Brand-X deck. At first we got no answer to our standard question about which tapes to use in testing, but ferric Brand A was packed with the deck, so we were not surprised when it eventually was suggested by the manufacturer. When our report appeared in print, however, a different tape manufacturer asked why its Brand B was not used in the testing. Brand B was, we were told, the ferric for which the recorder had been optimized and was packed with the decks delivered in this country. A colleague at another magazine had received the same model with no tape sample; he ran bench tests with Brands A and B and found both to perform well, but he concluded that Brand A offered the better match.

Which was the "right" tape for the deck? Since both work well, that's not the real point here. The evidence of political maneuverings and the threat to the dissemination of real information that those maneuverings pose are the reasons we recount the anecdote. In an atmosphere in which deck manufacturer Y is unwilling to say that his products are designed around tape Brand C for fear of offending tape manufacturer D, whose new formulation may prove to be the greatest thing since safety pins and with whom Y therefore will want to work very closely, the purchaser is left gasping for answers.

There is much that deck manufacturers could do to supply them. For a start, the practice of printing tape lists (if they are printed at all) as part of the manual—"cast in stone" for all time and all countries—guarantees several things: rapid obsolescence; misrepresentation of brand designations that apply to different formulations in different countries; omission of brands that, however appropriate to the deck, are not available in its country of origin; and inclusion of others that cannot be purchased in the country where an exported deck will be sold. Both publicly and privately we have urged deck manufacturers to make up the cassette lists locally, in quantities designed to last no longer than six months, and insert them into the manuals as an ongoing update of vital information. If the lists would also indicate performance characteristics for these tapes on the deck for which they are intended, the user would then be in a position to make intelligent cost/quality/availability comparisons.

So far we have made little if any visible headway. But our hope currently is focused on the Institute of High Fidelity. It is girding its loins to write tape-equipment specification standards. Two of our editors plan to serve on that committee, and one of them—Ed Foster, who chaired the amplifier standards committee that proved far more successful than we have any right to expect such a panel to be—will be its chairman. At last a forum exists in which this problem can be addressed.

Equipment in the News

Realistic receiver debuts

The Realistic STA-2000D stereo receiver from Radio Shack incorporates a Dolby decoder, multiplex filter, and tuned-RF AM stage. The receiver is said to provide 75 watts (18 $\frac{3}{4}$ dBW) per channel into 8 ohms over a frequency range of 20 Hz to 20 kHz with no more than 0.18% total harmonic distortion. The STA-2000D offers such other features as dual calibrated output meters, two-direction tape dubbing and monitoring, and a 40-step volume control. It costs \$499.95.

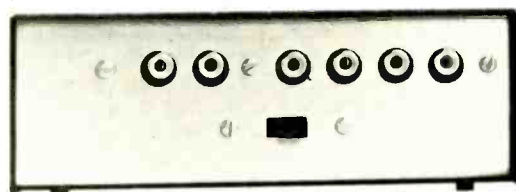
CIRCLE 139 ON PAGE 99



Ace's electronic crossover kit

Ace Audio's Model 5000 electronic crossover is designed for use with subwoofers and certain minispeakers. The crossover occurs at 100 Hz with an 18-dB-per-octave slope. It can be used with a mono amplifier or connected to a stereo amplifier's two channels for double the power output in mono. A level control and defeat switch are included. The Model 5000 electronic crossover kit—which takes an estimated 1 $\frac{1}{2}$ to 3 hours to build—costs \$59.25. The factory-wired version costs \$99.50.

CIRCLE 141 ON PAGE 99



Better Than Any Pusher

**No matter how fine the fibers or how soft the "plush"
—everything other than the Discwasher system is a pusher.**

Pushers only line up dirt and microdust into an even line of contamination. Run your pusher off the record at a tangent—and you spread these particles into a tangent line. And microdust becomes permanently welded into vinyl by a tracking stylus.

Only the Discwasher system has the patented micro-tipped fibers which are directional—slanted—to pick up, hold and thus remove particles from your discs. These same directional fibers also remove fluid and solubilized contaminants by capillary action.

**The superior record cleaner—
better than any pusher.**



discwasher[®], inc.

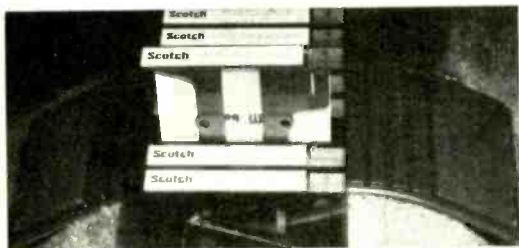
1407 N. PROVIDENCE RD.
COLUMBIA, MISSOURI 65201



New technology in Nakamichi deck

Nakamichi's Model 580 front-loading cassette deck contains a Direct Flux erase head that is said to prevent saturation effects and a record/play Superhead that provides a rated flat response to 20 kHz. The elements of the deck's transport system rotate at different speeds so that—according to Nakamichi—resonant peaks are not reinforced. The transport system also features a cueing system that allows the user to reduce the fast-wind speed to half or a quarter of normal while monitoring the tape. The price of the Model 580 is \$650.

CIRCLE 140 ON PAGE 99



Scotch kit straddles your saddle

The 3M Company has introduced the Scotch C-Box Car Saddle, a cassette storage unit for cars. Designed to sit on the transmission hump between the driver and front passenger seat, the kit consists of five C-boxes, a mounting bracket, and an end-weighted vinyl mat. The front of each box has an index label and a drawer insert card. The holders and cassettes can be attached to the mat horizontally or vertically. The Scotch C-Box Car Saddle costs \$9.95.

CIRCLE 142 ON PAGE 99



Mitsubishi goes small

Among Mitsubishi's line of microcomponents is the M-P01 preamplifier, which incorporates a moving-coil-cartridge head amp, although it can be used with fixed-coil cartridges as well. Pushbutton tone controls that adjust bass and treble are stepped in 2-dB increments to ± 8 dB. Accompanying LEDs display each step, and separate defeat switches are provided for each tone-control section. M-P01, which also allows tape duplication and monitoring, is priced at \$370.

CIRCLE 143 ON PAGE 99



A goat-hair record brush—no kidding!

The Clean-OI hand-held record brush now available from Elpa Marketing has goat-hair bristles. It was developed by a Danish experimenter who worked with weasel and squirrel hair, among other types, before discovering that angora goat hair cleans without scratching or generating static. The price of the Clean-OI brush is \$5.49.

CIRCLE 144 ON PAGE 99



Altair's power attenuator

The Altair Model PW-5 is a volume pot that follows a stage power-amp output and allows the musician to turn up his amp as far as needed to produce its full-power distortion and sustain without the ear-splitting loudness that would ordinarily result. The device has two speaker outputs and a line output for direct feed to a slave amp or mixer, offers attenuation of up to 44 dB in 4-dB steps, and has a rated frequency response from below 30 Hz to more than 20 kHz, $+0$, -3 dB, into a 10,000-ohm load. The PW-5 costs \$129.50.

CIRCLE 149 ON PAGE 99



Osawa distributes Chartwell subwoofer

The new Chartwell SW-135 subwoofer can be used with Chartwell's LS3/5A and PM-100 speakers and any other similar bookshelf model. According to Osawa, the distributor, it adds ± 2 dB response from 40 to 120 Hz. The subwoofer works with either a stereo or mono amp, presenting an impedance of 8 ohms to the output. Housed in a genuine teak or walnut-veneer cabinet, the Chartwell SW-135 costs \$400.

CIRCLE 145 ON PAGE 99



While the others were catching up, TDK was moving ahead.

Shortly after it was introduced in 1975, TDK SA, the world's first non-chrome high bias cassette, was accepted by most quality deck manufacturers as their high bias reference standard. This advanced, new cassette enabled their decks to perform to the limit of their capabilities. And because the decks are set in the factory to sound their best with SA, music-loving consumers made SA the number one selling high bias cassette.

The other tape makers set out in pursuit of SA, hoping someday to equal the performance of its Super Avilyn particle formulation and the reliability of its super precision mechanism.

But making the world's most advanced cassette was nothing new for TDK's engineers. They pioneered the high fidelity cassette back in 1968 and for more than a decade they've led the way in cassette tape technology. Over the last three years, they've refined SA and made

it clearly superior to the '75 version.*

That makes the music lovers happy; it means more music with less distortion. It makes the deck makers happy; they've been improving their decks and SA makes them sound better than ever. But for the competition, unhappily, it means a whole new standard to catch up to.

So if you'd like to raise your own recording standards, step up to TDK SA, the high bias reference tape backed by high fidelity's original full lifetime warranty.**

TDK Electronics
Corporation,
Garden City,
New York 11530

 **TDK**
The machine for your machine.™



*Today's SA has a maximum output level (MOL) more than 2dB better than that of 1975 SA at the critical high frequencies, and improved sensitivity across the entire frequency range. **In the unlikely event that any TDK audio cassette ever fails to perform due to a defect in materials or workmanship, return it to your local dealer or to TDK for a free replacement. ©1978, TDK Electronics Corp.

Sansui adds a turntable

A two-speed (33 and 45 rpm) automatic turntable, the SR-5090 from Sansui, has direct drive and a control that allows endless repetition of a side. Fine speed controls offer a $\pm 3.5\%$ adjustment range. The SR-5090's S-shaped tone arm has a rated minimum tracking force of 0.9 gram. Antiskating that can be adjusted during play and oil-damped cueing are other features. The price of the SR-5090, including base, dust cover, and 45-rpm adapter, is \$280.

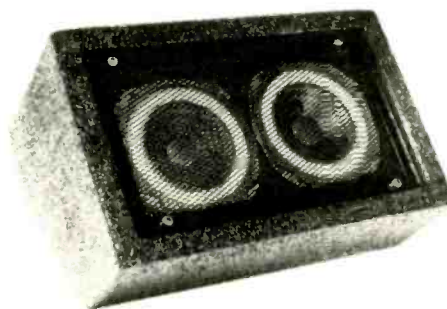
CIRCLE 148 ON PAGE 99



Mini-Monitor from Concertaudio

Dubbed Model SP-245, this speaker system from Concertaudio is designed for floor use on-stage. The two 4½-inch drivers are positioned side by side in a compact birch-plywood enclosure and protected by a steel grille. Frequency response is said to be within 2½ dB from 80 Hz to 13 kHz, and the speaker is rated to handle up to 120 watts of program material. Nominal impedance is 16 ohms. Two ¼-inch phone jacks are included so that additional systems can easily be connected in parallel. The Mini-Monitor weighs 10 pounds and sells for \$99.

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JVC's most affordable deck

JVC has introduced a budget cassette deck, the Model KD-A1. This front-loading model offers a Dolby IC circuit, selectable bias and equalization, and auto-stop. Other features include mike and line inputs, averaging meters, and dual rotary controls. Rated frequency response is 30 Hz to 16 kHz; signal-to-noise ratio is said to be 57 dB, and wow and flutter 0.08%. The KD-A1 sells for \$179.95.

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Roland's DS-1 distortion unit

The DS-1 from Roland Corp., marketed in the Boss accessories line, uses a built-in high-gain amplifier to overdrive its own circuits and produce square-wave fuzz sound at the output. The package includes a tone control for mellowing the fuzz, a level control pot, and a DIST pot, which determines the amount of overdrive and hence the amount of distortion. Standard ¼-inch phone jacks serve as input and output connections. The DS-1 sells for \$89.50.

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BML introduces transmission-line speaker

Representative of BML's Tracer speaker systems is the Sound Window 1001, a transmission-line design. The planar column houses a 7½-inch woofer, 7½-inch radiator, and 3-inch tweeter. According to BML, the enclosure design, along with dual phase coupling of the drivers, eliminates the need for a crossover network. Rated frequency response of the system is 48 Hz to 22 kHz; rated nominal impedance is 5.3 ohms. The Sound Window 1001 costs \$339.95.

CIRCLE 147 ON PAGE 99



Choose Any Set

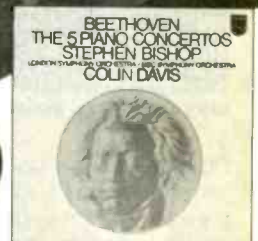
(3 or 4 Records) **\$7.98**



64. BACH Six Sonatas and Partitas For Solo Violin (3 LPs)
Nathan Milstein



65. LISZT Complete Hungarian Rhapsodies, Opera Paraphrases (4 LPs)
Michele Campanella at the piano.



72. BEETHOVEN The 5 Piano Concertos (4 LPs)
Stephen Bishop, Colin Davis: London Symphony and BBC Symphony Orchestras

62. BRAHMS Four Symphonies (4 LPs)
Claudio Abbado: Vienna Philharmonic, Berlin Philharmonic, Dresden State and London Symphony Orchestras

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You may choose any one of these multi-record sets for just \$7.98 plus a small postage/handling charge. (Sales tax added for New York residents.) Remember, each set contains either three or four records. That's a savings of as much as \$27.94 . . . up to 78% off the suggested list price!

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These are superior, silent-surfaced recordings by Deutsche Grammophon and Philips. They come in a handsome hinged storage case with an informative, illustrated brochure.

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Arroyo, Freni, Te Kanawa, Ganzarolli, Wixell, Colin Davis: Chorus and Orchestra of the Royal Opera House, Covent Garden



67. BEETHOVEN The Middle Quartets, Op. 59 Nos. 1, 2 and 3, Op. 74 No. 10 and Op. 95 No. 11 (3 LPs)
Quartetto Italiano

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For the Autophile

by Robert Angus



Craig's T635 Road-Rated Receiver



Grundig's top-of-the-line GCV-2700



Sharp's RG-3550, with APSS

On location. The trouble with most car stereo equipment, says Peter Behrendt, president of Craig Corporation, is that it's designed by engineers sitting in quiet, stationary offices and tested by technicians working at quiet, stationary lab benches. Under such conditions they may not think about the effects of motion on the equipment they're working on. He says, "The result is to underestimate the importance of low RF intermodulation to overcome the picket-fence effect of stations fading in and out as you drive in the city or of alternate channel rejection in eliminating signals you don't want. And if the engineer does think of one or another, he tends to overemphasize it. We believe that these and other considerations are interrelated—that, if one is handled much better than the rest, the result is poorer performance, not better."

At Craig, Behrendt has succeeded in getting the engineers out of their offices and onto the highway to design the Road-Rated Receiver series. Altogether there are fourteen models: eight cassette units (five for in-dash mounting, three under-dash) and six eight-track (three each, in-dash and under-dash mounting).

The Germans are coming. When we think of car stereo, we tend to envision factories in the Far East producing everything from cheapies to custom components. Now the Germans are moving into the field. One of the first to do so is Grundig, which recently introduced five receivers and four speakers.

At \$548, the GCV-2700, rated at 20 watts per channel, is an AM/FM/cassette system with auto reverse, electronic tuning, a search/lock on the radio, and LED channel display. Station presets and a graphic equalizer are optional extras. For \$278, you get Model GRV-1700—the same tuner with 7 watts

per channel but no cassette deck; the 20-watts-per-channel power supply is available as an extra. The WKC-2035US, at \$299, is an AM/FM/cassette outfit with wow and flutter actually specified—unusual in car stereo: less than 0.25%. Then there's the GCM-4700, priced at \$230 and featuring AM/FM/cassette with auto reverse, mechanical tuning, and 7 watts (or the optional 20 watts) of output. The GCM-4600 is the same as the 4700 except for its one-way tape drive; it costs \$170. Incidentally, lest you tend to become disoriented by looking to the west when you feel you should be looking to the east, it's worth noting that these Grundig receivers—despite the name and Teutonic engineering—actually are made in the same old place.

Speakers offered are two 4-by-6-inch dual-cone systems in a molded panel designed to be mounted overhead; a \$55 model consisting of 4½-inch woofer with foam surround, 2-inch tweeter, and crossover pad; and a dual 4½-inch full-range speaker with central dome radiator designed for outside mounting on virtually any surface, for \$75 per pair.

Other German products seeking your attention include Visonik, Braun, and Isophon speakers and Becker and Blaupunkt receivers. The latter two manufacturers have been around for years as premium-quality suppliers of car radios, mainly to dealers in foreign cars.

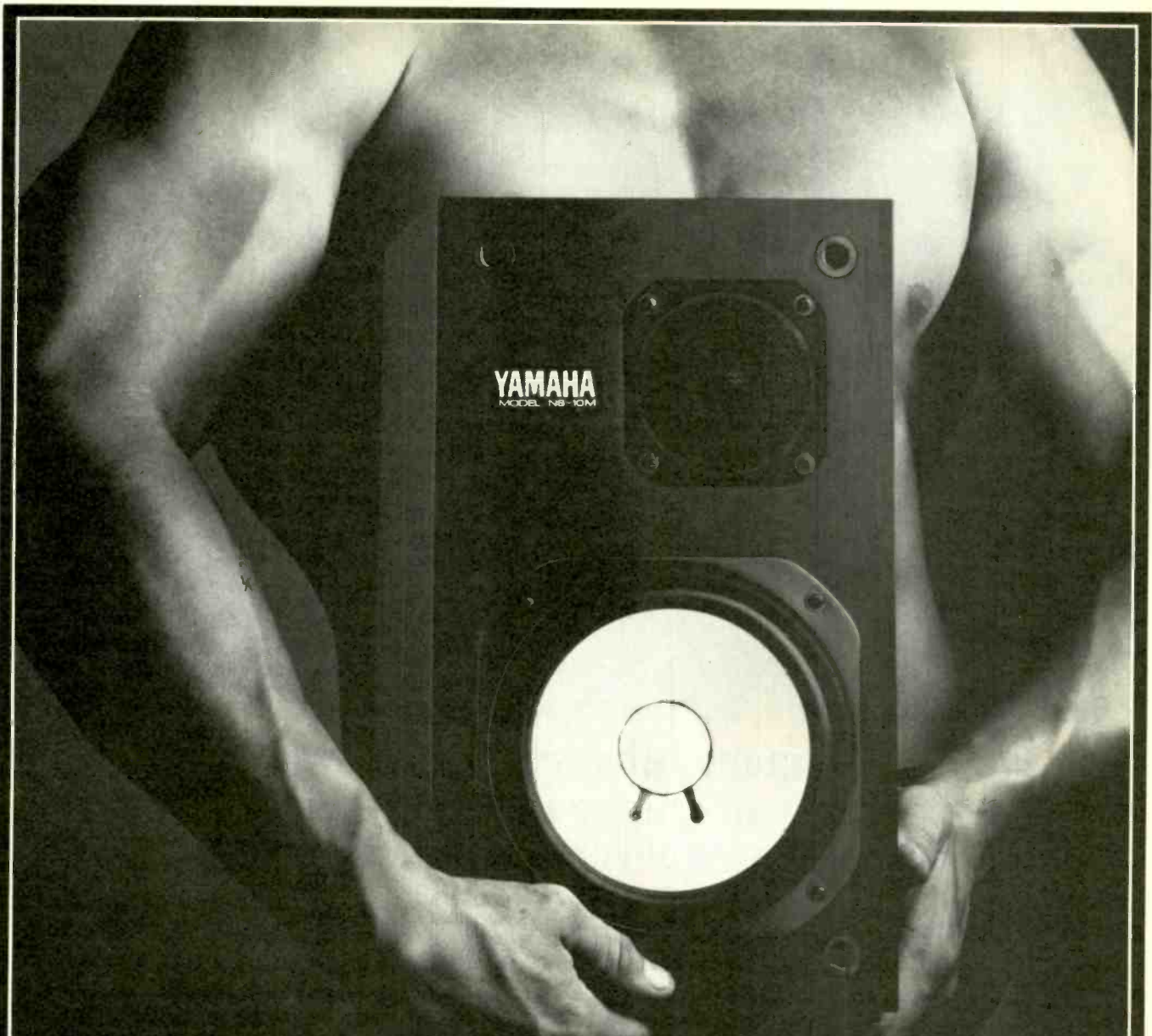
Sharp selector. More than a year ago Sharp Electronics built into its top cassette deck a microprocessor that could search out the selection of your choice from among a dozen or more on the tape. Now the Automatic Program Search System is available for car stereo, in the RG-3550 in-dash AM/FM/cassette unit (\$220).

The present car version lacks the sophistication of the original, but it does allow you to skip to the beginning of the next selection on the tape or rewind to the start of the one you've been listening to. In addition to APSS, the RG-3550 has a phase-locked loop FM circuit, locking fast forward and rewind, automatic cassette ejection, tone and front-to-rear balance (fader) controls, 8 watts per channel power output, and built-in noise suppressor.

BASF boosts ferrichrome. Question: When is deliberate overemphasis of the high frequencies a good idea? Answer: When you're recording tapes to play in the car. For the past few months, BASF dealers have been advising their customers to do precisely that—by buying ferrichrome tape (BASF Professional III) and recording with Dolby processing for playback on car stereo equipment that has neither the proper equalization for ferrichrome nor a Dolby circuit.

"It's not as crazy as it sounds," explains BASF vice president Jack Dreyer. "The high-end dropoff of most car cassette playback heads is very rapid, and anything you can do to offset it by putting more high-frequency signal onto the tape will help extend the frequency range of the sound. Playing ferrichrome tape back at 120-microsecond equalization does that. So does recording with Dolby encoding and playing back with no decoding."

Another plus for ferrichrome tape, according to Dreyer, is that it will accept without saturation more high-frequency signal than will less expensive ferric oxides. And you don't have to give up excellent low-frequency response to do so, as you might with a pure chrome tape. He says that the advantages of ferrichrome's dual layering are "really apparent in any demonstration." ●



Incredibly smooth, well-defined, powerful. Yet small.

Presenting Yamaha's new NS-10M Mini-Monitor. With wide, even dispersion, high sensitivity and accuracy, the sound is distinctively Yamaha: a rich, solid sound with a tight, firm bass that respects every nuance of tonal shading.

What you're going to wonder, is where it's all coming from. Because for the sound, the Mini-Monitor is amazingly small. Weighing in at 13 lbs., the speaker measures only 15.4" high, 8.5" wide. Inside, a 7" cone woofer and a 1.5" dome tweeter produce 90 dB SPL with 1 watt at 1 meter.

The Mini-Monitor was made in the image of the NS-1000. It has an identical finish, and like its bigger brother, is sold in mirror-image matched pairs. At low volume levels the sound is virtually the same. It's a primary monitor with the NS-1000 look and sound, for places the NS-1000 won't fit.

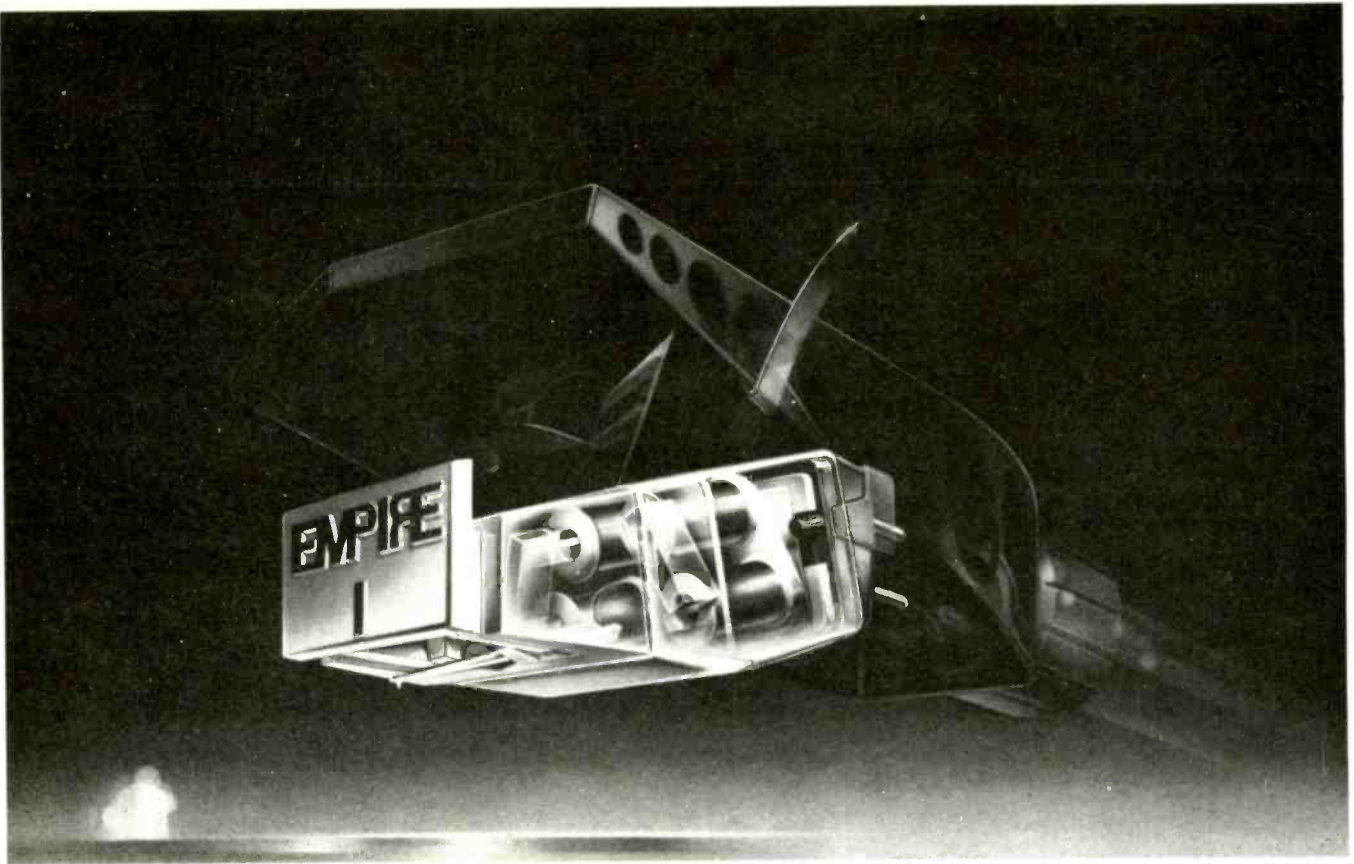
Our new Mini-Monitor with the powerhouse sound is currently contending with the heavyweights at your Yamaha Audio Specialty Dealer. And holding its own, thank you.



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If you can't find your nearest Yamaha Audio Specialty Dealer in the Yellow Pages, just drop us a line.



No matter what system you own there's an Empire Phono Cartridge designed to attain optimum performance.

Detail, brilliance, depth.

This is the promise of each Empire Phono Cartridge and although there are many Empire models, each designed to meet specific turntable performance characteristics, every Empire cartridge contains the following features:

Features	Details	Benefits
Unique Fixed Unidirectional Three-Magnet Structure	Every Empire cartridge uses 3 high energy ferrite magnets in the cartridge body to provide a high level of unidirectional flux.	Higher and more linear output signal, immunity to bi-directional magnetic distortion, and improved hum and microphonic rejection.
Molded Four-Pole Magnetic Assembly	Every Empire cartridge employs a four-pole magnetic assembly that is precisely aligned and locked in place by a high pressure injection molding process... providing a uniform and orthogonal magnetic field.	Improved crosstalk and reduced distortion that is insensitive to tracking force.
Tubular moving Iron Design	By using a tubular high magnetic saturation iron armature we obtain an optimum ratio of output level to effective tip mass.	Improved tracking ability and widened frequency response.
Four Coil Hum Bucking Assembly Plus Electromagnetic Shielding	Using custom designed computer controlled machines, a precision drawn copper wire (thinner than human hair and longer than a football field) is wound onto a symmetrical 4 bobbin structure. By using 2 coils per channel a symmetrical electrical circuit is formed.	Improved rejection of hum and stray noise fields.
Aluminum Alloy Cantilever	The Empire computer designed tubular cantilever provides optimum coupling of the diamond tip to the moving magnetic system resulting in minimum effective stylus tip mass.	Superb low level tracking, reduced tracking distortion... plus enhanced wideband separation characteristics.
Precision Ground Oriented Diamond Tips	Empire diamonds are precision ground, polished and inspected in house, using sophisticated television cameras and powerful microscopes to ensure accurate angular orientation.	Reduced tracing phase distortion, together with reduced wear of both the record and the diamond tip.

For the full story on Empire cartridges we suggest you "test-listen" to one at your local Empire dealer, and for information on our full line of cartridges, write for our brochure "How to Get the Most Out of Your Records": Empire Scientific Corp., Garden City, N.Y. 11530

EMPIRE

New A CONSUMER'S GUIDE Equipment Reports

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

FIVE MAINSTREAM SINGLE-PLAY TURNTABLES

The turntables reviewed in the following section were chosen because they represent roughly the middle of the market. Their average price is \$240, with the cheapest selling for \$160 and the most expensive for \$300. Although they vary in degree of sophistication, none are stripped-down models and none fall into the luxury class.

Some models have automated features, but for most of those that do there are nonautomated companion units. Likewise, manuals usually are accompanied by "stepup" models that incorporate semiautomatic and automatic operation and that may add sophistication (e.g., quartz speed lock in a direct-drive line) to the motor system.

These are not beginners' turntables; they generally are targeted for serious listeners who, while looking for a high level of performance, are constrained to remain value-conscious. On the other hand, none of them are so complex in operation or philosophy as to intimidate the newcomer or to require any extensive experience with something similar. Go very far below this price range, and useful features and some performance begin to disappear; go too much above it, and the law of diminishing returns begins to apply.

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.





Fisher's Direct Drive—with a Difference

Fisher MT-6225 two-speed (33 and 45 rpm) semiautomatic single-play turntable ensemble, including simulated-walnut base and dust cover. Dimensions: 17¾ by 14¾ inches (base), 6 inches high with cover closed; 11 inches vertical clearance and 3½ inches at back required with cover fully open; 54-inch audio cables. Price: \$230; available with Empire 2000 E/III cartridge (as MT-6225 AC) for \$250. Warranty: "limited," one year parts and labor. Manufacturer: made in Japan for Fisher Corp., 21314 Lassen St., Chatsworth, Calif. 91311.

Virtually every turntable line has one or more direct-drive models at its pinnacle. Fisher's Studio-Standard series is no exception, the top three models fitting this description. Fisher's units are not slavish imitators, however. Whereas the majority of direct-drive systems use a DC motor (with or without quartz lock), the MT-6225 opts for a 120-pole, three-phase AC-servo drive. And it is directly driven in the absolute sense: The platter itself forms the rotor of the motor. A magnetic band within the periphery of the platter interacts with the stationary coils of the motor to induce rotation. The two common speeds are available, with separate vernier controls for each. Connection with the preamp is made via a permanently attached dual cable whose capacitance we measured at 130 picofarads—an appropriate value for the majority of stereo cartridges.

The tone arm is gimbal-mounted on a horizontal thrust bearing and vertical pivot bearings. The S-shaped arm terminates in a standard removable headshell with mounting slots for adjusting the overhang until the stylus lines up with the center of a bubble level on the top plate—a technique we find less convenient than most separate overhang-adjustment gauges because visual alignment of the stylus and the bubble, some ¾ of an inch below it, cannot be as precise. The arm returns to its rest automatically at the end of the side (or when REJECT is pressed) in about 10 seconds. Pivoting the arm away from the rest energizes the turntable.

According to CBS's bench tests, the speed of the MT-6225 is maintained perfectly over the normal line-voltage range once it is properly set at 120 volts. The pitch controls provide roughly the same range at either speed: about a semitone below nominal and half that above it. Weighted peak flutter measures within the range we have come to expect of the better models.

The tone arm pivot has negligible friction in the vertical plane but proves a bit sticky laterally. This lateral friction offsets the skating force by 0.15 gram, and it is probably advantageous to set the antiskating dial to a calibration somewhat

Fisher MT-6225AC Automatic Turntable

Speed accuracy	no measurable error for either speed at 105 or 127 VAC when set exact at 120 VAC	
Speed control range		
at 33	-6.2 to +3.1%	
at 45	-5.4 to +3.4%	
Weighted peak flutter (ANSI)		
average	0.04%	
peak	0.07%	
Total audible rumble (ARLL)	-61 dB	
Stylus force gauge accuracy	no measurable error	
Arm friction		
lateral	0.15 gram	
vertical	negligible	
Stylus force required for auto trip	0.4 gram	
Tone-arm resonance and damping (with Shure V-15 Type III)		
vertical	8 Hz; 3½ dB rise	
lateral	5.5 Hz; 2 dB rise	

lower than the actual tracking force. This friction bias aside, the antiskating-force curve is quite linear over its 4-gram range. Fisher suggests that the dial calibration is correct for most spherical styli but that the control should be adjusted to a position corresponding to between 1.2 and 1.4 times the tracking force for Shibata styli. Once our suggested offset correction is made, we would go along with the recommendation.

The tracking force is set via a rotating counterweight. Tripping the auto-return mechanism requires 0.4 gram of tracking force; it is unlikely that anyone would use such a low force even with a high-quality pickup.

In combination with a Shure V-15 Type III cartridge, the tone arm resonates laterally at a very low frequency, but the more important vertical resonance is better situated, and the modest rise in output at resonance suggests good tone-arm damping. Our tests on the Shure "Era IV" record, using the Empire cartridge supplied with the MT-6225AC, duplicate the 8-Hz vertical resonance, and the stylus motion at resonance is modest. Weighted rumble is reasonably low.

Four compliant pads support the MT-6225. The turntable

can be leveled by adjusting the feet so that the bubble is centered in the bull's-eye. Fisher's suspension seems excellent: This model is quite insensitive to vertical and lateral shocks on the shelf that supports it, and the stylus hangs in the groove very well. The dust cover is well balanced and, with a modicum of care, can be raised or lowered during play without causing the cartridge to mistrack. (All the controls lie inside the closed dust cover, though we prefer leaving the cover open during use to prevent its static charge—if any—from upsetting the effective tracking force.) The cue mechanism provides good damping as the arm descends but leaves it free to move out-

ward by several grooves in ascent. Should you raise the arm precipitously, it will bounce fairly far to the right.

When the Fisher's range of features is taken as a whole, it is the suspension that seems to stand out most strongly. Although it is common to advise the music lover to mount his turntable on a rock steady platform, that advice is easier to give than it is to implement. Many listening rooms simply don't offer a firm enough underpinning to accommodate a skittish turntable. Fisher's MT-6225 may be a viable solution to a widespread problem.

CIRCLE 131 ON PAGE 99



Direct Drive from Garrard

Garrard DD-130 manual two-speed (33 and 45 rpm) single-play direct-drive turntable, with base and dust cover. Dimensions: 17 $\frac{3}{4}$ by 13 $\frac{3}{4}$ inches (base), 6 $\frac{1}{2}$ inches high with cover closed; 17 inches additional height and 2 $\frac{3}{4}$ inches at back required with cover fully open; signal cables approx. 3 $\frac{1}{2}$ feet, nondetachable. Price: \$159.95; available with Shure M-91ED cartridge (as DD-130S) for \$219.95. Warranty: "limited," three years parts and labor. Manufacturer: Garrard Engineering, Ltd., England; U.S. distributor: Plessey Consumer Products, 100 Commercial St., Plainview, N.Y. 11803.

European turntable manufacturers in general have been somewhat slow in adding direct-drive models to their lines, preferring for the most part to retain the proven belt-drive system and often contending that it is superior to direct drive in any case. Garrard, like a few other European companies, seems to feel that direct drive has its advantages too, for it has quietly introduced models incorporating that feature—first the DD-75 and now the DD-130. Spartan in its appointments though it may be, the new model starts with the proverbial clean sheet of paper and seems representative of some new directions in Garrard engineering.

But simplicity of approach need not—and does not in this instance—rule out sophistication, the tone arm of the DD-130 being an excellent case in point. Little seems to have been spared in reducing the mass of the aluminum-alloy tubular arm, said to weigh a mere 12 grams together with its headshell, to the bare minimum. The measured resonant frequency of the system for vertical motion with the Shure V-15 Type III pickup mounted in the arm is reasonably far from the region of maximum warp energy. Damping, considering the favorable location of the resonance, is moderate to good.

The weight-reduction campaign has also been applied to the counterweight, which will balance any pickup weighing no more than 8 grams. This limit rules out the majority of moving-coil cartridges but fosters better performance with the

Garrard DD-130 Manual Turntable

Speed accuracy no measurable error for either speed at 105 or 127 VAC when set exact at 120 VAC

Speed control range
at 33 -3.7 to +6.4%
at 45 -3.5 to +5.5%

Weighted peak flutter (ANSI)
average 0.04%
maximum 0.07%

Total audible rumble (ARLL) -60 dB

Stylus force gauge accuracy no measurable error

Arm friction negligible

Tone-arm resonance and damping (with Shure V-15 Type III)
vertical 8.2 Hz; 4 $\frac{1}{2}$ dB rise
lateral 6.2 Hz; 2 $\frac{1}{2}$ dB rise

fairly compliant fixed-coil types that still constitute the mainstream. The scale on the counterweight gives measurably exact indication of the tracking force in use. The manufacturer offers the Shure M-91ED as a premounted option but no conclusion should be drawn from this selection: The DD-130 can handle the top of the Shure line or any other within its chosen sphere. The detachable headshell, incidentally, is of the "universal" type and fits many, though not all, tone arms of compatible design. Antiskating bias is linear.

Coupled to a brushless DC motor under servo control, the platter rotates with minimal flutter. When set to rotate at 33

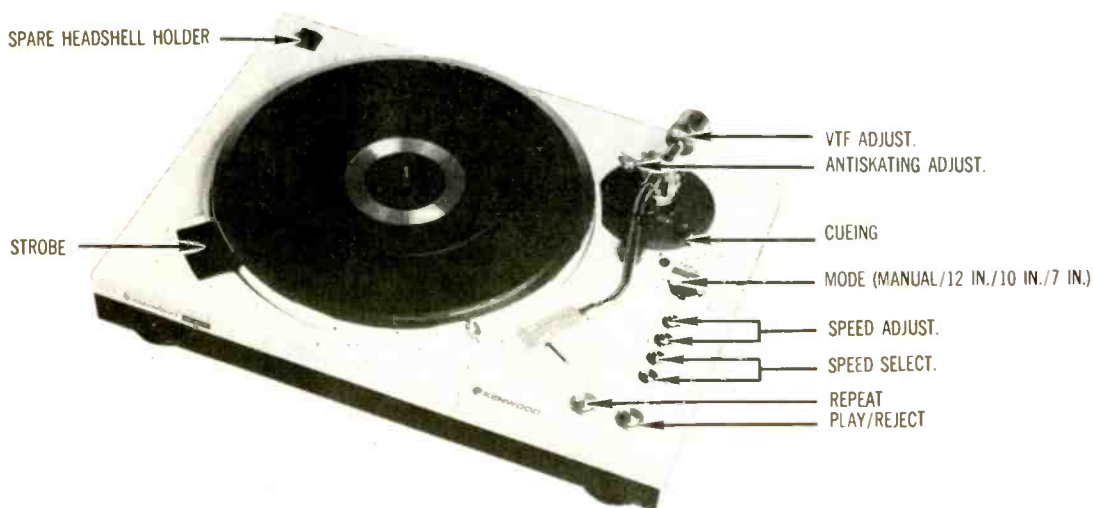
rpm with a standard AC power-line voltage, it is unaffected at voltages that normally represent worst-case extremes. This holds true at 45 rpm. Fine speed control extends over a total range of about one and one-half semitones, but if the 33 speed is set for synchronism with the strobe, 45 is off, and vice versa. Audible rumble falls just to the good side of our traditional boundary between the sheep and the goats, and infrasonic rumble is in evidence neither through audible side effects nor visible on the oscilloscope we customarily use to monitor our auditions.

From what we heard with a DD-130 connected to our system, the turntable lets the cartridge go about its work essen-

tially unencumbered. Record warps are tracked well, and the unit is relatively insensitive to shock. The tone arm must be set down and lifted by means of the cue lever, but it is well damped and handles in a way that makes this easy. When the arm is lifted in midplay and lowered again, it returns to a spot within a groove or two of the liftoff point.

With its simplicity of design and reluctance to accommodate exotica, this must be classified as a bread-and-butter turntable—but the bread is of whole-grain flour free of harmful additives and the butter is fresh. In short, all of the really essential features of a turntable come along with a surprisingly high level of performance. And the price looks good.

CIRCLE 136 ON PAGE 99



Kenwood Ensemble Has All Its Marble(s)

Kenwood Model KD-5070 fully automatic two-speed (33 and 45 rpm) single-play direct-drive turntable ensemble, with dust cover and "marble"-topped base. Dimensions: 19 by 13¾ inches (base), 6 inches high with cover closed; 10½ inches additional height and 2¾ inches at back required to open cover fully; approx. 3-foot audio cables. Price: \$260. Warranty: "limited," one year parts and labor. Manufacturer: Trio Electronics, Japan; U.S. distributor: Kenwood Electronics, 1315 E. Watsoncenter Rd., Carson, Calif. 90745.

Last time we looked at a Kenwood turntable (the KD-550, May 1977), we were impressed by its freedom from shock susceptibility and acoustic feedback—two of the prime contaminants of sonic clarity in a record-playing system. The automatic KD-5070, the line's current flagship, combines a similar marblelike base with an extremely effective suspension. The "antiresonance compression base" (ARCB) is molded from particles of limestone and glass in a polyester resin binder. It not only is heavy like real polished marble (at more than 10 pounds), but has the same smooth texture and appearance.

The base is isolated from its surroundings by four compliant feet, and the low-frequency isolation proves exceptional indeed. We find it virtually impossible to dislodge the stylus no matter how hard we thump the table on which the KD-5070 rests. The dust cover can be raised, lowered, and even dropped with only a modest protest from the loudspeaker.

Tapping the base itself creates a wow in the sound but no mis-tracking, and in close proximity to hard-driven speakers, the sound remains cleaner than average for these conditions even though the base can be felt to vibrate with the music.

A 20-pole brushless DC-servo motor drives the platter at 33 or 45 rpm, and a separate 12-pole synchronous gear motor powers the arm, which can be programmed to find the lead-in groove of any standard record size (the designations are in centimeters: 17, 25, and 30 instead of 7, 10, and 12 inches). The cycle time is reasonably brief—about 7½ seconds to return the arm and turn off power. There is a similar wait at the beginning of the play cycle; then the platter comes up to speed and locks in within 2¾ seconds at 33 rpm. It will accelerate from 33 to 45 rpm in 1½ seconds and slow down within 3 seconds. The repeat-play cycle requires about 15 seconds.

Laboratory tests indicate that the speed remains constant over the line-voltage range and that the flutter content is negligible. The pitch-control range amounts to approximately a semitone either way at 33 rpm and somewhat less at 45 rpm. The rumble is extraordinarily low; if you hear any with this turntable, you had best suspect the record.

The conventional S-shaped tubular-metal tone arm comes with a standard plug-in headshell. Antiskating force is supplied by a pivoted weight that can be positioned to provide the appropriate outward compensation for cartridges tracking at 1, 2, or 3 grams. The amount of antiskating applied is a bit

less than average once lateral arm friction is allowed for.

Although the tracking force required to trip the automatic mechanism is greater than average, no problem should occur in practice. The stylus-force gauge is accurate at the extremes of the range (0.5 gram and 3 grams) and reasonably accurate in between. Tracking force adjusts in the usual fashion for such an arm: The rotating counterweight, isolated by butyl rubber, has a dial on which the force is set once the arm has been balanced. Since the KD-5070's counterweight and scale are coupled very loosely, care is required to avoid erroneous settings.

With a Shure V-15 Type III cartridge mounted in the headshell, CBS found a rather low lateral tone-arm resonance and a somewhat higher resonance in the vertical plane. Of greater concern is the somewhat underdamped (i.e., "high-rise") response at resonance. During our tests, we too found that the arm moved to a greater degree than average at the outer grooves of an LP—the region where warps generally are most severe. When we tried pickups with different compliance and damping properties, which alter (respectively) the resonance frequency and severity, the Shure V-15 Type IV seemed a good choice. Its Dynamic Stabilizer keeps the arm motion within reasonable bounds. A cartridge of relatively low compliance (we used the Dynavector 20B) moves the resonant frequency upward (in this case to 8 Hz), but the relative motion between the stylus and the arm can be exaggerated to the point of mistracking. Some damping—either in the cartridge itself or via an external damping mechanism (such as a DiscTraker)—seems to be a good idea with this arm.

The signal cables are rather short and quite low in capacitance (90 picofarads). We'd suggest you experiment with the frame-grounding wire. With some pickups, we found the hum to be lower with the wire unconnected; others required the grounding, and with some it made no difference.

Whenever the arm is raised, the signal leads are automatically grounded to mute the thump as the stylus settles into or leaves the groove. The platter of the KD-5070 is somewhat larger in diameter than the common LP, so removing a disc from the turntable may require a bit more dexterity than usual if you are to avoid scraping the surface with your fingernail. The cueing action is exemplary; the arm responds promptly and returns with negligible side drift.

Kenwood KD-5070 Automatic Turntable

Speed accuracy no measurable error for either speed at 105 or 127 VAC when set exact at 120 VAC

Speed control range
at 33 -6.4 to +5.0%
at 45 -4.4 to +3.9%

Weighted peak flutter (ANSI)
average 0.035%
maximum 0.065%

Total audible rumble (ARLL) -69 dB

Stylus force gauge accuracy		
	Setting	Measurement
	0.5 gram	0.50 gram
	1.0	1.05
	1.5	1.65
	2.0	2.20
	2.5	2.70
	3.0	3.00

Arm friction	
lateral	0.1 gram
vertical	negligible

Stylus force required for auto trip 0.57 gram

Tone-arm resonance and damping (with Shure V-15 Type III)	
vertical	8.0 Hz; 5 dB rise
lateral	6.5 Hz; 3 dB rise

The performance of the Kenwood KD-5070 is outstanding in several regards. Rumble is almost totally absent—we can't recall a turntable with a better figure. Speed accuracy and flutter are state-of-the-art, and the suspension is outstanding. The user can circumvent its one foible, a relatively massive and underdamped arm, by the careful selection of a cartridge, aided by an effective infrasonic filter. In such a combination, the KD-5070 will provide superb performance at a modest price.

A Stanton Turntable for Any Pickup

Stanton 8005M two-speed manual turntable assembly. Dimensions: 16 $\frac{7}{8}$ by 13 $\frac{1}{8}$ inches (top plate), 6 inches high with cover closed; 16 $\frac{1}{2}$ inches additional height and 3 $\frac{1}{2}$ inches at back required to open cover fully; approx. 3 $\frac{1}{2}$ -foot nonremovable signal cables. Price: \$300; available with Stanton 881S cartridge for \$450 or Stanton 681EEE cartridge for \$390. Warranty: "limited," one year parts and labor. Manufacturer: Stanton Magnetics, Inc., Terminal Dr., Plainview, N.Y. 11803.

Until the introduction of this latest series—Models 8005M (manual) and 8005A (semiautomatic)—Stanton turntables would accept only Stanton pickups. Happily for those of you who would defend your right to free choice, this no longer is true. Along with a plug-in headshell that will fit any cartridge, the new series offers revised cosmetics, user-accessible adjustment of the rate at which the viscous-damped cueing lets the tone arm descend, and hinged dust cover that can remain in any position from fully open to fully closed. And for those Stanton fans who want more convenience than was previ-

ously available, the semiautomatic version should be good news indeed.

Retaining the drive system of the 8004-II (a synchronous motor and belt), the 8005M manages a modest improvement in rotational stability, as the measured flutter data indicate. Speed accuracy is better too: The nominal 33-rpm speed is measurably exact at normal power-line voltage and at the extremes used in our tests, and 45 rpm, while a hair fast, likewise remains unaffected by the AC line. No fine-speed control is provided. Rumble is quite low: It stands just inches from our unofficial "goal line" of -60 dB ARLL.

The Unipoise tone arm's single-point pivot, like the earlier version, is virtually frictionless, and the arm itself keeps mass to a minimum. The vertical resonance with the Shure V-15 Type III cartridge installed is about an octave above the warp region; caution might be in order in using a cartridge of similar weight and significantly less compliance, as this will move the resonance toward the audible range. (Moving-coil cartridges generally have sufficient stiffness—the inverse of com-



pliance—to court this danger, but their relatively high mass would probably offset some of the lightness of the tone arm.) And the resonance is so well damped that it should have little effect in any case. The stylus-force gauge reads about one-tenth of a gram high in the most-used range, about one-quarter gram high elsewhere—a larger error than usual but only serious if your pickup has exceptionally narrow tracking limits. Antiskating bias falls within the generally accepted range.

When we connected the Stanton to a music system and put it through its paces, we were generally pleased with what we heard and saw. It tracks warps very well, especially with a cartridge like Stanton's, which is fitted with an auxiliary damping device. A moving-coil cartridge that we used with the unit delivered good results too. Stanton's suspension system provides sufficient isolation for normal conditions; when strained heavily—by very heavy footsteps or a very bouncy floor, for example—the shocks can cause skipping and, in the latter case, may feed back. But used as it would be in most homes, the turntable should cause no complaint.

Here, then, is a product that fits solidly into Stanton's tradition. Insofar as it retains tenaciously the endearing features of its progenitor and adds a few new ones of its own while improving performance slightly, the design can be called conservative; but there is no reason why a design must be radical to be good. Where this turntable shines is in its ability to suit the tracking requirements of highly compliant cartridges, which Stanton, as the manufacturer of several such products, should know particularly well. This is an important considera-

Stanton 8005M Turntable

Speed accuracy		
33 rpm	no measurable error at 105, 120, or 127 VAC	
45 rpm	0.15% fast at 105, 120, and 127 VAO	
Weighted peak flutter (ANSI)		
average	0.055%	
maximum	0.095%	
Total audible rumble (ARLL)	-59½ dB	
Stylus force gauge accuracy		
	Setting	Measurement
	0.5 gram	0.38 gram
	1.0	0.90
	1.5	1.40
	2.0	1.75
	2.5	2.30
	3.0	2.70
	3.5	3.20
	4.0	3.65
Arm friction	negligible	
Tone-arm resonance and damping (with Shure V-15 Type III)		
vertical	13 Hz; 1 dB rise	
lateral	8.8 Hz; 1¼ dB rise	

tion for many of today's audiophiles. Less important but perhaps even harder to come by is the 8005's unique and pleasant personality. It should gain many admirers.

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Visonik's Direct-Drive Premier Turntable

Visonik Model DD-8200 semiautomatic two-speed (33 and 45 rpm) single-play direct-drive turntable, with base and dust cover. Dimensions: 18 by 13¾ inches (base), 6¼ inches high with cover closed; 10¾ inches additional height and 2¾ inches at back required to open cover fully; approx. 3½-foot removable signal cables. Price: \$250. Warranty: "limited," two years parts and labor. Manufacturer: Heco-Hennel & Co., West Germany; U.S. distributor: Visonik of America, Inc., 1177 65th St., Oakland, Calif. 94608.

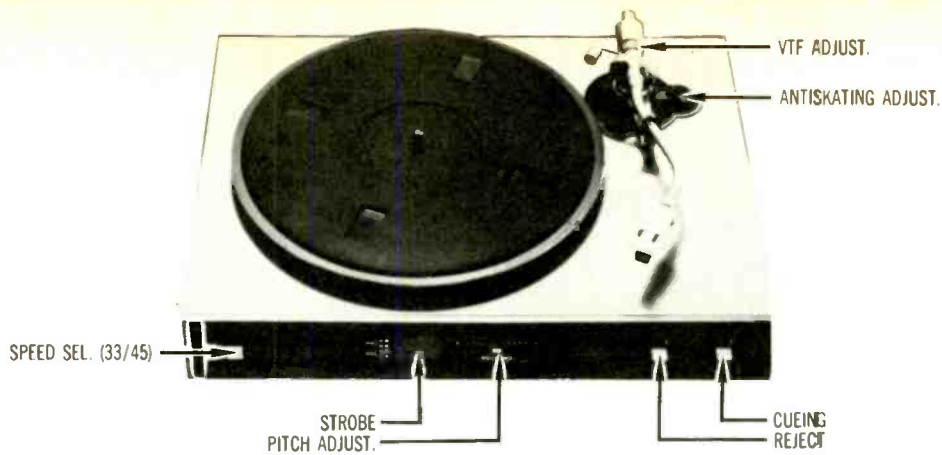
Though beauty be in the eye of the beholder, technical performance and even convenience of operation are subject to objective analysis. Being the sole direct-drive turntable that Visonik offers, the DD-8200 is—not surprisingly—the top of the current line. It is a semiautomatic two-speed platter that comes to life as soon as the tone arm is removed from its holder. The arm is positioned manually over the record and lowered; from then on, the DD-8200 assumes command. Each control is readily accessible from the front with the dust cover lowered.

In the way of novelty, this model has a slider pitch control

(rather than the customary knob) whose position next to the strobe window is eminently logical, as is its operation. While the slider has a rather narrow range (roughly a quarter-tone either way), its physical length facilitates precise adjustment. The single slider adjusts both speeds; once it has been set at 33 rpm, the platter also locks in precisely at 45 rpm. Nor does the speed vary measurably over the range of line voltages you can expect at home.

The second novelty in the DD-8200 is its cue control. You lower the arm by pressing the front-panel lever, which then locks down; you raise it by pressing the lever further yet to release the catch. (A caution tag on the lever warns the user of this unusual action, the manual being quite misleading in this regard.) At the end of the disc—or when REJECT is actuated—the mechanism automatically releases the CUE and lifts the arm. The cue device operates smoothly, thanks to oil damping, and the stylus returns quite precisely (within one or two grooves) to its previous position. The location of the CUE, the well-illuminated strobe, and the LED speed lamps give clear indications of operating conditions.

Also unusual among today's turntables, but eminently sen-



sible, are Visonik's removable signal leads. Those supplied with the platter measure a trifle over 3½ feet and are of exceedingly low capacitance (including the tone-arm wiring, about 105 picofarads). Should your cartridge require a greater capacitive load, or should you need to keep your preamp farther from the turntable, standard pin-plug cables can be substituted. The residual capacitance of the DD-8200's internal wiring is about 30 picofarads.

The 20-pole, 30-slot DC-servo motor provides excellent speed stability, negligible flutter, and very low rumble. A fixed counterweight balances the S-shaped tone arm laterally, suggesting that this turntable is more tolerant than average of unlevel operation; the adjustable vertical-balance counterweight delivers tracking forces that match the calibration with near perfection. The force required to trip the return mechanism is well below the practical minimum, even for today's most compliant pickups. The antiskating force appears appropriate to us at the 1-gram setting but increases more sharply than customary at higher settings; it reaches its maximum value at a 2-gram indication, above which the bias remains constant.

Lab measurement found a tone-arm resonance at a somewhat lower frequency than optimum with our standard Shure cartridge. The vertical resonance is only moderately damped; a less compliant cartridge (and, preferably, one that affords a higher degree of damping) would seem to be a more suitable choice for the DD-8200. In our listening tests with the same pickup, however, we found that the Visonik handles a typical complement of records with satisfactory results. The arm does tend to vibrate somewhat in sympathy with pinch-warped discs—a fault common in many turntable/arm combinations—and, on the 6- and 8-Hz “warp” bands of the Shure “Era IV” test disc, the sound is modulated substantially by the low-frequency vibrations.

SUMMING UP . . . As might have been expected, no one of these turntables is a clear standout in all categories, and in many respects they represent a dead heat. The four direct-drive models are a photo finish with respect to flutter, and the belt-drive Stanton is close enough to the others to remain audibly on a par. The Fisher, Garrard, and Kenwood are measurably exact in speed and will allow you to go back and forth between 33 and 45 rpm without speed readjustment. The Visonik and Stanton are equally exact at 33, though if drifting strobe patterns annoy you, you will want to reset the former when going from one speed to the other. The latter has no fine speed control.

When it comes to rumble, differences are more clear-cut, with the Kenwood ahead by a considerable margin and the Visonik not too far behind. Yet the Stanton, Garrard, and Fisher are bunched up within a 1½-dB spread right around the level

Visonik DD-8200 Semiautomatic Turntable

Speed accuracy	no measurable error for either speed at 105, 120, or 127 VAC when set exact at 33 and 120 VAC
Speed control range	
at 33	-4.1 to +4.2%
at 45	-3.0 to +3.3%
Weighted peak flutter (ANSI)	
average	0.03%
maximum	0.06%
Total audible rumble (ARLL)	-64½ dB
Stylus force gauge accuracy	no measurable error 0.5 to 2.0 grams; measures 2.55 grams at 2.5-gram setting
Arm friction	negligible
Stylus force required for auto trip	0.35 gram
Tone-arm resonance and damping (with Shure V-15 Type III)	
vertical	8.5 Hz; 4½ dB rise
lateral	5 Hz; 3½ dB rise

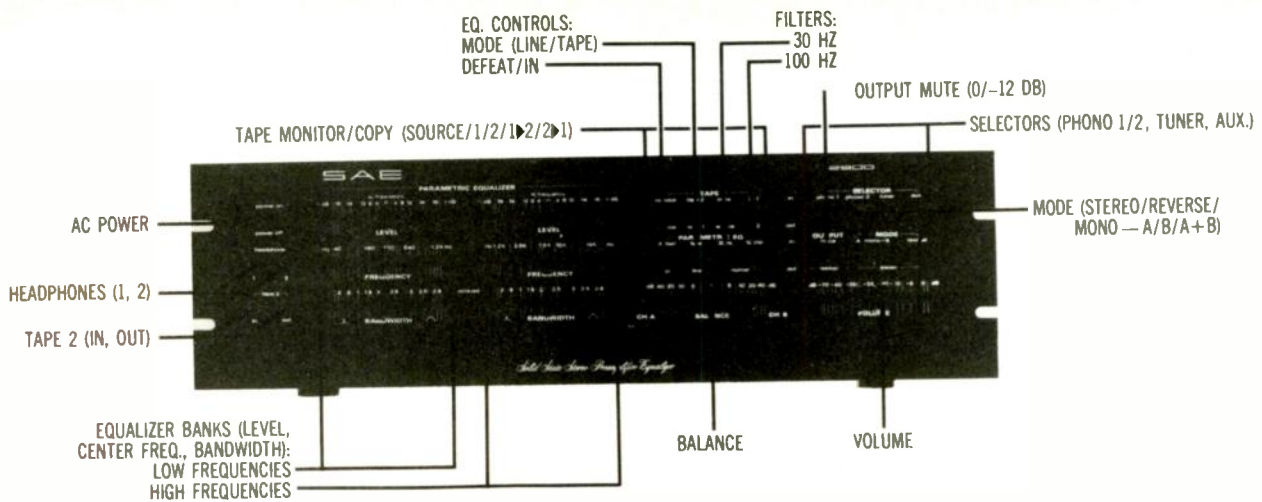
The turntable suspension is very fine indeed, and the system is notably immune to shock in the vertical plane, somewhat less so to lateral perturbations. The removable dust cover is well balanced and can be raised or lowered without distress while playing a disc—though this virtue should rarely be called upon in actual use, thanks to the placement of the controls. In general, the DD-8200 does what it should—and well—at the same time offering little “extras” in appearance, convenience, and novelty features.

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at which we generally would forget about rumble, and they do not suffer audibly by comparison.

For isolation from external shock, the nod must go to the Kenwood, followed closely by the Fisher. But in choosing either of these models, one accepts a tone arm that is not at its best when used with highly compliant phono pickups. The Stanton and the Garrard, whose arms nailed down first and second honors, respectively, in such an application, offer the least isolation from shock. This pair, interestingly, spans the extremes of price; the others are so close that the differences can almost be ignored.

So it seems that none of these units can be all things to all turntable buyers. Yet whatever the strengths that may lead you to prefer one over the others, the weaknesses that you will be forced to accept along with the strengths should not prove worrisome or embarrassing; you can't really go wrong.



A Preamp Plus EQ from SAE

SAE Model 2900 stereo preamplifier in rack-mount case. Dimensions: 19 by 5¼ inches (front panel), 3¾ inches deep plus clearance for controls and connections. Price: \$500. Warranty: "limited," five years parts and labor. Manufacturer: Scientific Audio Electronics, Inc., 701 E. Macy St., Los Angeles, Calif. 90012.

With the exception of a few designs in which their omission is explained either as economy or purism (depending upon the price point), tone controls have traditionally been a standard feature of preamplifiers. As graphic and parametric equalizers gained in popularity, some companies—SAE a notable example—began to substitute them for conventional tone controls. Many of these preamp-cum-equalizer designs are complex, bristling with more levers than most people would dare to shake a stick—or twitch a finger—at. And they tend to be expensive besides.

In the Model 2900, SAE has apparently sought a middle ground: Its parametric equalizer is more than a bass and a treble knob and yet is not so elaborate as to strain either the user's understanding or budget. But the equalizer has not shrunk to minuscule proportions, either; its controls occupy virtually half of the front panel.

Viewed as a basic preamp, the 2900 is quite a solid piece of work. Though TIM sleuths may look askance at the fact that the figure for 20 kHz is just about double that at midband, the percentage of total harmonic distortion plus noise in the output is tiny indeed. Measured by the conventional procedure, IM distortion turns out to be less than THD. With respect to the 2-volt output level at which these data are taken (with the volume control adjusted so that a 0.5-volt input is required), the Model 2900 is capable of more than 14½ dB of headroom before clipping.

For all practical purposes, the frequency response curve of the preamp can be drawn with a ruler held horizontally, the corner frequencies (–3 dB points) being below 10 Hz and above 100 kHz. All of the various inputs demonstrate good sensitivity and very good weighted signal-to-noise ratios. The overload point of the phono stage is adequately high, and the RIAA equalization is close enough to the target to preclude offending anyone's ears.

The input selector and OUTPUT CONTROL, both operated via pushbuttons, are functional and easy to use. The output controls are a bit unconventional: They allow a choice among normal stereo, mono left channel, mono right channel, mono

SAE Model 2900 Preamp/Equalizer

Output at clipping (channels driven simultaneously)
L ch 11.0 volts
R ch 11.0 volts

Frequency response +0, –¼ dB, 10 Hz to 20 kHz
+0, –2½ dB, below 10 Hz to 100 kHz

RIAA equalization +1, –½ dB, 20 Hz to 20 kHz

Input characteristics (re 0.5 V; noise A-weighted)
Sensitivity S/N ratio
phono 1, 2 0.58 mV 75 dB
tuner, aux 32.5 mV 86 dB
tape 1, 2 32.5 mV 86 dB

Phono overload (clipping at max. gain) 195 mV at 1 kHz

THD + N (at 2 volts output) < 0.012%, 20 Hz to 20 kHz

IM distortion (at 2 volts output) 0.0035%

100-Hz filter –3 dB at 100 Hz; 6 dB/octave

30-Hz filter –3 dB at 30 Hz; 12 dB/octave

sum, and reverse stereo, depending on the combination of buttons pushed. Additional buttons cut the EQ section in and out of the line and tape outputs as well as engage the low-frequency filters. The sliding potentiometers that serve to control volume and balance and to adjust the parameters of the EQ section respond easily to the touch of a finger and are noise-free in operation. True, the Model 2900 as a control center can take getting used to: The layout of the panel is unusual and the markings of the controls strike us as just a little busy and cluttered.

But the feature of the preamp that commands the lion's share of one's attention is the parametric equalizer, which like others of its type consists of several sections—two in this case—each adjustable for amplitude, center frequency, and bandwidth. The two sections partition the audio band at 1.2 kHz, the treble operating above that and the bass below. Indicated center frequencies are reasonably accurate, though not exact, and so are the indicated degrees of boost and cut. Calibrated (somewhat cryptically) in octaves and fractions thereof, the bandwidth controls, set as narrow as possible,

yield ± 3 -dB boost/cut points two octaves or less apart in all cases of maximum boost or cut; the widest setting separates these points by something in excess of six octaves. Clearly, a high degree of flexibility has been provided.

Laying aside our lab data and putting our ears to work for a time, we found the basic performance of this preamp unimpeachable. It interfaces well with phono cartridges, and with two-way tape dubbing and two sets of MAIN OUT jacks, the interconnection and control possibilities look flexible indeed. The low-frequency filters, on the other hand, are problematical: The lower one, with its 30-Hz turnover and a nice, sharp slope, is about one octave too high to deal with troublesome infrasonics without taking an audible bite out of bass-drum pulses and organ pedals. The upper filter, turning over at 100 Hz with a gradual slope, amounts to a tone-control function; its effect on the underpinnings of the music would be hard not to notice.

More likely as a result of our inexperience than because of any problem with the unit, we had difficulty with the parametric equalizer, principally in relating the settings of the controls to what we heard. The hardest control to use by ear is BANDWIDTH, which has an effect that few nonprofessional users are conversant with. We suspect that someone who just

wants to tweak up the treble a bit on a dull recording or restore the bass that a low listening level seems to take away will be happier with conventional tone controls.

But the Model 2900 is surely not targeted at people whose interests end there. It decidedly wants to be in the hands of someone who will put it to work—fixing up dubs, taking the chaff out of old, treasured recordings, excising hum from some recalcitrant component, improving a loudspeaker system. And we'd bet that folks like this will not only willingly learn how to use it, but love it besides.

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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.

Manufacturer's Comment

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

Cerwin-Vega Metron PR-1 preamplifier (September 1978): While we support the new IHF standards, we feel that a complete explanation of the test conditions and their effect on measurements is essential. In fairness to the Metron PR-1—the first preamp evaluated using the new standards—and all other products so tested, the point should be stressed that the specifications cannot be compared directly with older reports.

Although they are not called for in the new standards, figures for such measurements as maximum output level, sensitivity, phono overload, and even distortion could be put into a second format for more realistic comparisons—such as dB above or below standard reference levels. If the IHF has recognized units such as the dBW, it is hard to understand why this format is not carried through to other measurements.

We also regret the apparent fact that the top cover of the PR-1 was not removed by the reviewer, since a glance inside would reveal what accounts for a significant portion of the preamp's cost. The components and construction techniques therein are, to our knowledge, without compromise. We sincerely believe that the performance life of the PR-1 will exceed that of its owner. The forthcoming Metron PR-2 preamp will be identical to the PR-1 in performance and features but, by contrast, will cost approxi-

mately half as much due to its use of standard-grade componentry.

BILL SPUNGIN
Quality Control Manager
Cerwin-Vega, Inc.

IHF replies: Spec-oriented readers will find that the Metron's measurements do show references that set them apart from those published in the past. We had considered retaining the older measurements along with the newer ones (as we often have done during periods of transition) but, with so many changes, finally decided that to do so could be more confusing than revealing. However, we have added a caveat about the new measurements to our test reports section.

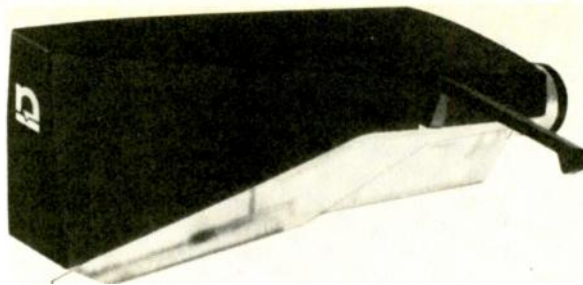
Our changes do not necessarily represent a literal adoption of the IHF standard. As we have said in recent issues, we are adopting many of its salient provisions because of their usefulness to our readers. The suggestion that the dBW approach (initiated by HF, incidentally) be extended to other measurements that can be expressed in dB with respect to an accepted reference is an interesting one that we are studying.

We do not make it a policy to critique the innards of those models we test. Life expectancy is, in our opinion, more a question of statistics and guesswork than of visual examination, and we are more interested in the results achieved by a given unit than by the means employed by the manufacturer to achieve those results.

Nagatron HV-9100—A Singular Transducer

Nagatron HV-9100 moving-ribbon stereo phono cartridge with elliptical stylus. Price: \$220; optional HA-9000 head amp, \$275. Warranty: "limited," one year parts and labor. Manufacturer: Nagatronics Corp., Japan; U.S. distributor: Nagatronics Corp., 2280 Grand Ave., Baldwin, N.Y. 11510.

The mystique surrounding the variations in methods of transduction in phono cartridges notwithstanding [see "The Anatomy of Magnetic Pickups," page 49], the results are electrically equivalent, differing principally in details such as output level and impedance. In the Nagatron HV-9100, the moving-



coil arrangement is reduced to virtually its ultimate simplicity: A ribbon conductor (in effect a coil with a single turn) is coupled mechanically to the cantilever and made to move in relation to unusually powerful samarium cobalt magnets. One advantage claimed for this technique is that it contributes to reducing phase shift at high frequencies since inductance remains very low. An additional, perhaps more palpable advantage is that the cartridge is less sensitive to its load than even a normal moving-coil type.

Conveniently, the Nagatron comes mounted in a headshell designed to fit standard Japanese tubular tone arms. Someone who tries to install the pickup critically will be chagrined to find that the nonadjustable overhang is excessive by roughly 1.5 to 2 millimeters. This positioning is, in fact, intentional and is said to be necessitated by the basic geometry of the cartridge. The company recommends that no attempt be made via other adjustments of the tone arm (if these are possible) to change the overhang back to a standard value.

While the Nagatron and its integral headshell constitute a rather massive package—sufficiently so to require that extra weight be added to the counterweight system on some tone arms—the internal damping and dynamic compliance of the cantilever suspension are such that the arm/cartridge resonance for vertical motion is fairly well placed in frequency considering the very low rise in amplitude response. The lateral resonance is less favorably placed, but it is yet more heavily damped than the vertical and has little effect on performance in any case. Being heavy enough to dominate the effective moving mass of most arm/cartridge systems, the cartridge can be expected to act much the same way in any tone arm.

Other lab data for the Nagatron reveal a normal complement of harmonic distortion, very low intermodulation distortion, and good maximum tracking levels. The frequency response, measured through the Nagatron HA-9000 head amp (as were the other data), shows a slight rolloff at low frequencies that can be attributed to the infrasonic filter incorporated in the head amp. Both channels show some excess gain from about 5 kHz upward, peaking somewhere above 20 kHz. The square-wave trace, with ultrasonic ringing evident, is consistent with the frequency-response data and reveals extremely fast rise and fall times, although with considerable overshoot. Separation is about average but consistent throughout the midrange.

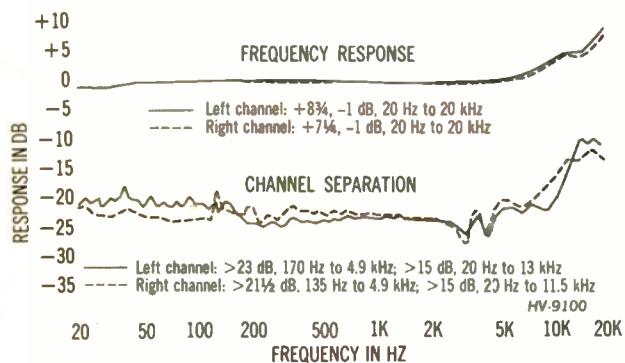
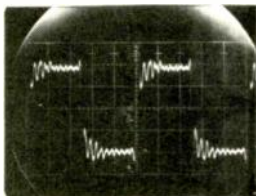
In its sonic performance, as heard through our own head amp (another brand), the Nagatron is exquisite. The extra brightness implied by the rising high end of the frequency response curve is barely audible. Instruments such as brasses and percussion, characterized by sharp initial transients, are rendered with great finesse: The sound begins extremely quickly but without the edginess and harsh coloration sometimes produced by pickups whose reputations are based on transient handling. An excellent balance between fluid, effortless sound and precision of articulation seems to be the hallmark of this cartridge. As the data on low-frequency resonance suggest, the HV-9100 tracks warps with impunity and retains its composure even when subjected to moderately heavy shocks.

Though the differences in sound among fine phono cartridges are considerably greater, in general, than those among fine power amps, they are still quite subtle, and for a fairly substantial difference in cost, the Nagatron sounds only slightly different from more standard top-of-the-line pickups. But the nicety of this difference does not nullify its importance. Considering the limited numbers in which the HV-9100 can apparently be made, we expect that eager audiophiles will keep dealer stockpiles small indeed.

Nagatron Model HV-9100 Phono Pickup

Sensitivity (at 1 kHz)	14.3 mV per cm/sec
Channel balance (at 1 kHz)	$\pm < \frac{1}{2}$ dB
Vertical tracking angle	14°
Low-frequency resonance (in SME 3009 arm)	
vertical	8 Hz; 2 dB rise
lateral	7.2 Hz; 1½ dB rise
Maximum tracking level (re RIAA 0 VU; 1.3 grams VTF)	
300 Hz	+12 dB
1 kHz	+15 dB
Weight (including shell)	19.3 grams
Tip dimensions	
tip radii	23 by 6.6 micrometers
scanning radius	13 micrometers

Square-wave response



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The Anatomy of Magnetic Pickups

by Kenneth Johnson
and William C. Walker

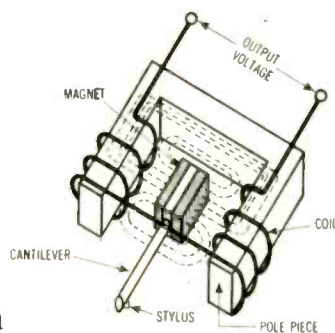


Fig. 1

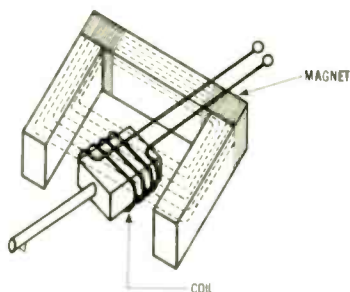


Fig. 2

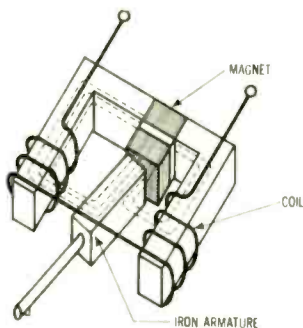


Fig. 3

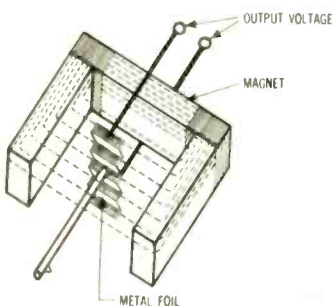


Fig. 4

THE PHONO CARTRIDGE is one of the smallest and, in many ways, the least understood of audio components. Despite its diminutive size, the cartridge performs a seemingly impossible task. When picking up the two channels of a stereo program, the stylus is simultaneously deflected laterally and vertically at frequencies that can exceed 15 kHz, sometimes experiencing accelerations in excess of thirty times the acceleration of gravity. Despite these severe conditions, the stylus must remain in continual contact with the groove walls or blatant distortion will result.

The part of the cartridge that converts the vibrations of the stylus into an output voltage is called the transducer. Many types of transducer systems are available today, each with its own theoretical advantages and disadvantages. Yet designers have discovered ingenious ways to circumvent the problems inherent in each type, and many of them are capable of excellent performance. Regardless of the type of transducer, all high quality cartridges are engineered with the same performance goals in mind: (1) ability to keep the stylus in contact with the groove walls at all times; (2) flat frequency response over the entire audible frequency range; (3) inaudible distortion; (4) a high degree of channel separation; and (5) output voltage and impedance to match the input characteristics of preamps.

Two basic transducer types are used to generate a pickup's output voltage: magnetic and nonmagnetic. Magnetic transducers, which dominate the market, depend for their operation on changing the magnetic flux that cuts through a wire, generally one that has been formed into a coil. Subclasses of this type include the moving-magnet, moving-iron, and (like the Nagatron HV.9100 reviewed here) ribbon cartridges. In the other classes are piezoelectric (ceramic), semiconductor, and electret cartridges, none of which use magnets. Generally speaking, cartridge manufacturers concentrate their efforts on one transducer type for their main product line.

• **Moving-Magnet Cartridges.** The moving-magnet transducer uses a small permanent magnet attached to one end of the stylus cantilever, as shown in Fig. 1. Near the magnet are two coils that usually consist of several hundred turns of wire wrapped around an iron or ferrite core called the "pole piece," which directs the magnetic flux through them.

As the stylus moves, so does the magnet, changing its distance from the coils. When the magnet is moved to the left, for example, the magnetic flux that intersects the left coil increases and the right coil experiences a decrease in magnetic field lines. Voltages will be induced in both coils, although they will be of opposite polarity. By connecting them in the proper manner, it is possible to obtain an output voltage twice that of a single coil. This is typically between 2 and 10 millivolts, a level most preamplifiers are designed to accept. Equally important, using two coils in this fashion greatly reduces the hum and noise picked up from extraneous sources. Most magnetic cartridges incorporate such hum-bucking coils.

Among the advantages of this kind of cartridge are relative ease of manufacture and convenient replacement of worn or damaged styli.

• **Moving-Coil Cartridges.** Quite similar in operation to the moving-magnet pickup is the moving-coil type, except that the coil is attached to the cantilever and the magnet is stationary, as illustrated in Fig. 2.

As the groove forces the stylus to vibrate, the attached coil also moves and cuts lines of magnetic flux. This action induces an output voltage. In order that the coil not impose an excessive mechanical load on the stylus cantilever (and on the record groove), it must be as light as possible and typically consists of just a few turns of very fine wire. The output voltage is thus very small, necessitating a boost from a special transformer or preamp (head amp) before delivery to a normal phono input.

Moving-coil cartridges are capable of excellent performance and enjoy a certain mystique among hard-core audiophiles. Since their manufacture requires considerable handwork, they are moderately expensive. In most cases, they must be returned to the factory for stylus replacement.

• **Moving-Iron (or Variable-Reluctance) Cartridges.** In this type of design, both the magnet and the coil are fixed, and a small piece of ferromagnetic material (usually iron) bonded to the end of the stylus cantilever is the part that moves (Fig. 3).

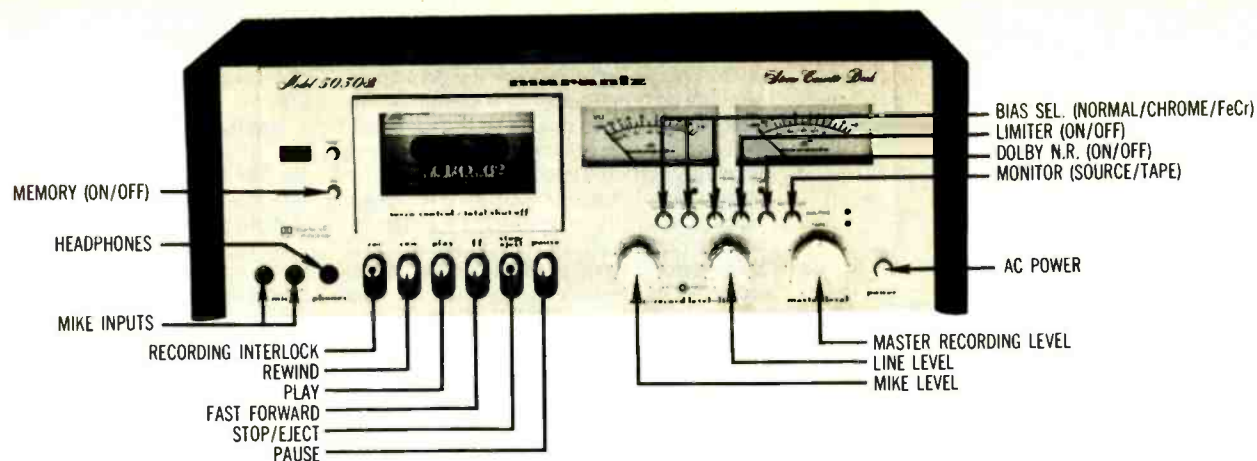
The means of operation depends on the fact that a magnetic flux can be made to travel in a closed path of magnetic material, much the way an electric current flows through a conductive path. A gap in the path into which a nonmagnetic material—say, air—is introduced adds reluctance (which acts like resistance in an electric circuit) and reduces the amount of flux. The iron fixed to the cantilever moves in such a gap, thus controlling the amount of flux that passes from the permanent magnet to the coils, which are normally connected in a hum-bucking arrangement like that used in the moving-magnet cartridge.

The moving-iron design allows the use of a large permanent magnet and coils with many turns of wire—both of which help to obtain a large output voltage—while keeping the effective mass of the cantilever small. It is relatively inexpensive to build and usually has a user-replaceable stylus.

• **Ribbon Cartridges.** The ribbon cartridge is similar to the moving-coil type in that the extremely light, thin piece of metallic foil attached to the cantilever and the wires connected to the ends of the foil (ribbon) form a coil with one loop (Fig. 4).

As the stylus vibrates the ribbon, the area enclosed by the "coil" changes. Since the coil is in a uniform magnetic field, changing its area also changes the amount of magnetic flux and induces a voltage.

This type of transducer has an output voltage similar to that of a moving-coil design, requires a preamp, and has similar advantages and disadvantages—and minimum inductance besides. Styli may be user-replaceable, but manufacture is expensive.



A Monitoring Head and Other Deluxe Features

Marantz Model 5030B stereo Dolby cassette deck in metal case. Dimensions: 16 $\frac{3}{8}$ by 6 $\frac{3}{8}$ inches (front panel); 11 $\frac{3}{4}$ inches deep plus clearance for controls and connections. Price: \$470; optional wood case, WC-121, available for \$25. Warranty: "limited," two years parts and labor. Manufacturer: made in Japan for Marantz Co., Inc., 20525 Nordhoff St., Chatsworth, Calif. 91311.

The virtues of three-head decks—once rare in cassette equipment but now ornamenting the tops of many lines—are obvious to the tape enthusiast: off-tape monitoring and, generally, increased bandwidth. Marantz's 5030B manages to wrap a separate playback "head" with many other desirable features into an attractively priced package. Here the electrically separate recording and playback elements are combined physically into a single head assembly, a technique that is increasing in popularity because it makes user adjustment of recording-head azimuth unnecessary. The recording and playback sections are fabricated from hard permalloy; the erase head is ferrite. A single DC motor powers the transport.

Separate concentric controls for the microphone and line inputs permit source mixing. The two elements of these controls, which serve to adjust channel balances, rotate independently; the MASTER control increases or fades the recording level of both channels at once—a feature we welcome. The recording level appears on two large averaging meters that are clearly illuminated by backlighting, the "safe" area (-20 to 0 dB) in blue and the "danger" area (0 to +6 dB) in red. The meters are aided by a pair of peak-responding LEDs that trigger at about -10 on the meter, depending on the high-frequency content of the program material. Either the input signal or that from the tape can be routed to the output via the MONITOR switch, the mode being indicated by another pair of LEDs. The multiplex filter can be defeated via a rear-panel slide switch.

Marantz recommended that Sony tapes be used for testing the 5030B's three switch positions: UHF ferric for NORMAL, plus chrome and ferrichrome. Only the last tested really well, however; the other two appeared somewhat overbiased by the deck. Consequently the NORMAL (ferric) tests were made with TDK AD, those for CHROME made with TDK SA. The curves show some evidence of underbiasing with both, but we believe most readers will prefer a slightly peaky high end to a dull one. The manual specifies no single tape for use with the deck; the

TDK products are widely available and are more to our taste than Marantz's suggestions.

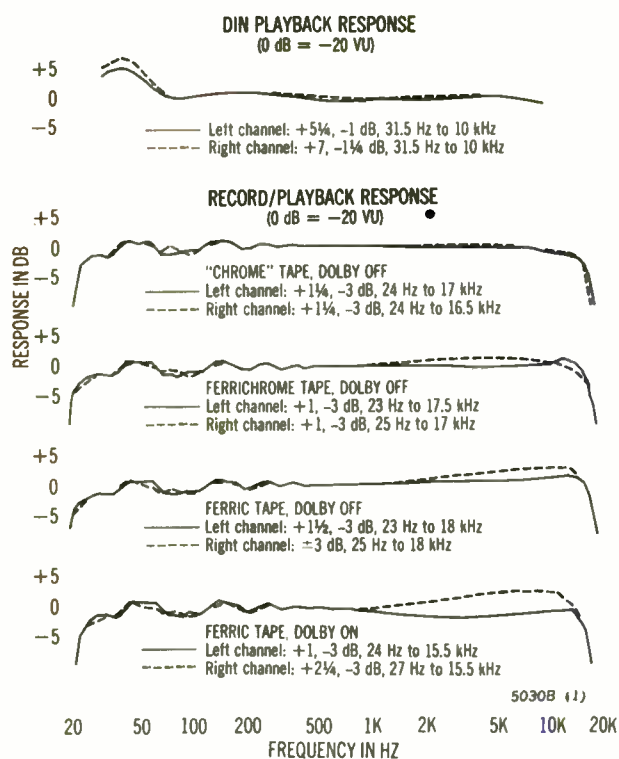
The record/play response with all three tapes exhibits excellent bandwidth, and low-end "head bumps" are well controlled. The response remains within close bounds to below 30 Hz. Dolby tracking is excellent, and the noise reduction is almost a full 10 dB at high frequencies. On our test sample, the left channel delivers smoother response than the right in the region between 5 and 15 kHz. Once correction is made for the difference in low-frequency equalization between standard test tapes and current practice, the 5030B reproduces recordings with a worst-case (right channel) error of +2 $\frac{3}{4}$, -1 $\frac{1}{4}$ dB.

Signal-to-noise ratio is solidly in the ballpark we consider good. Erasure and channel separation are essentially complete for normal stereo applications. Distortion at a recording level of -10 dB is about average, though in practice it is likely to be somewhat less than the figures would indicate because of the extra headroom afforded by the recording meters: A standard-level recording is produced when the meters indicate approximately +4 dB—well into the red. Absolute speed accuracy is reasonably good, varying only slightly in response to line-voltage changes. The flutter content is excellent in the play mode, and almost as good when the deck records its own tape.

The cassette-loading mechanism operates smoothly, and the front door can be removed for fairly good access to the heads for cleaning and demagnetization. You can go directly from a fast-wind mode to PLAY without pressing the STOP, but we would discourage such practice, because the deck can throw a tape loop under these conditions and might jam. The pause introduces no audible click but does create a short-lived speed perturbation.

After working with all three types of tape, our personal choice for the 5030B is SA; it made first-rate replicas of the original, the main difference being some added noise and flutter. The noise level is lower than that for AD, and the response is notably smooth. Some recordists may prefer to use AD, however, since its high-frequency response—to the ear, at least—is extra bright. The sound on Sony ferrichrome strikes us as somewhat muddy and a trifle dull, but its noise level is a little lower.

The limiter on the 5030B serves best as a safety precaution.



and only when recording live. It comes into play and reduces the gain only at a relatively high signal level. The comparative slowness of its recovery causes an audible decrease in program level after a transient has triggered it—in effect, punching a hole in the reverberation. But with the metering and peak-indication LEDs of this deck, it is unlikely that you should need to rely on the limiter for normal dubbing. The LEDs give adequate (and perhaps excessive) warning of overload; we quickly accustomed ourselves to the characteristics of these peak indicators and adapted our recording practices accordingly, preferring to ignore occasional flashes and

Marantz 5030B Cassette Deck	
Speed accuracy	0.83% slow at 10E VAC 0.67% slow at 120 VAC 0.60% slow at 127 VAC
Wow and flutter (ANSI)	playback 0.05% record/play 0.07%
Rewind time (C-60 cassette)	9F sec
Fast-forward time (same cassette)	10F sec
S/N ratio (re DIN 0 VU, Dolby off, CBS weighting)	playback L ch 53 dB, R ch 52½ dB record/play L ch 51 dB, R ch 50 dB
Erase (333 Hz at normal level)	71 dB
Channel separation (at 333 Hz)	record left, play right 47 dB record right, play left 47 dB
Sensitivity (re DIN 0 VU)	line input L ch 110 mV, R ch 120 mV mike input L ch 0.38 mV, R ch 0.47 mV
Meter action (re DIN 0 VU)	L ch 4 dB high, R ch 4½ dB high
THD (at -10 VU)	< 2.0% 50 Hz to 5 kHz
Maximum output (re DIN 0 VU)	L ch 0.82 V, R ch 0.92 V

record at a somewhat higher level to make better use of the dynamic range.

After living with the Marantz 5030P for a while, we would single out as its strongest points its wide bandwidth and the convenience afforded by the three-head format and master-level fader. At a price comparable to that of many two-head decks, it offers competent performance and an unusually large array of features. As in other instances, the key factor in reaching a decision may well be the suitability of these features for your needs.

CIRCLE 135 ON PAGE 89

“Concert-Hall Acoustics” in a Box

Advent Model 500 SoundSpace Control ambience-synthesizing system in metal case. Dimensions: 15¾ by 3¾ inches (front panel), 10¾ inches deep plus clearance for controls and connections. Price: \$599.95. Warranty: “limited,” one year parts and labor. Manufacturer: Advent Corp., 195 Albany St., Cambridge, Mass. 02139

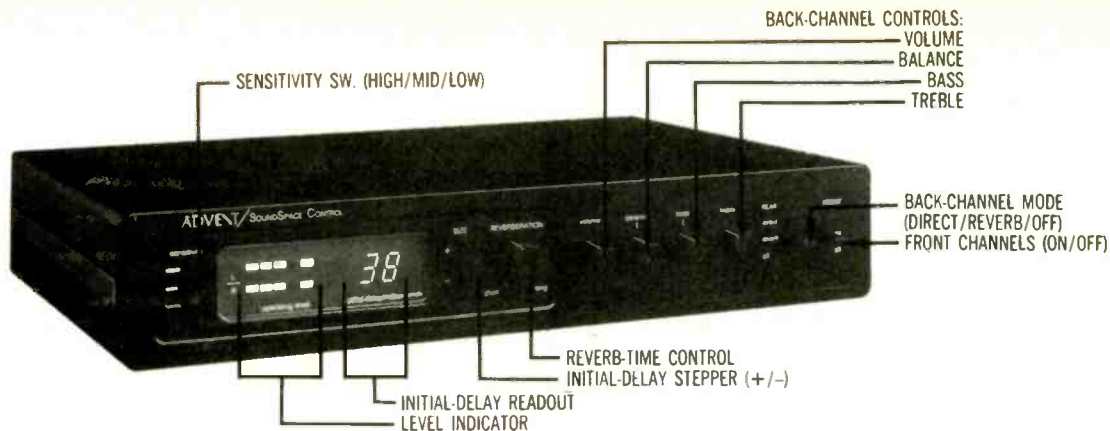
Ambience-synthesizing systems, though fairly recently introduced to the world of audio and relatively sparse in number, by and large have resisted any real commonality of approach. All use one means or another of delaying the signal—bucket brigades, digital shift registers, and the like—but beyond that, each design has gone its own way in details like encoding and decoding the signal, recirculation of signal in order to create higher echo density, and frequency response through the ambience channels. More important still, the questions of what operating parameters should be controlled by the user and how they should be adjusted—and how they can be organized for greatest operating convenience—are far from settled.

Advent, one of the latest companies to enter this new field, has taken yet a different approach and designed the Sound-

Space Control as a dedicated digital computer containing mathematical models of what the company believes to be good concert halls. The claim is that—unlike some competing units, the Advent cannot be adjusted to simulate “bad” listening environments. The only user-accessible controls that affect the reverberation are a stepper (SIZE INDEX) for the length of the principal delay, which relates to the dimensions of the simulated space, and a second (REVERBERATION) that controls the effective reflectivity of its “walls.” Bandpass of the reverb signal is cut off above about 6 kHz, as it is in all real halls that Advent considers good.

Opinion on this last point is far from unanimous, however, and some architectural acousticians recommend that concert halls produce significant reverberation as high as 10 kHz. But the lower cutoff frequency chosen by Advent cannot be reckoned a drawback. It is rather an aesthetic choice (albeit an electronically convenient one) that should prove satisfactory for most types of music and most listeners.

On the other hand, the designers apparently felt some need to project high frequencies beyond 6 kHz from the secondary (back) channels. (The SoundSpace Control like quad sys-



tems, requires the use of an additional stereo power amp and a second pair of loudspeakers.) This is accomplished by means of a treble control that gives a direct feedthrough of highs from the front channels. The usefulness of this arrangement depends largely on the positioning of the secondary speakers. If they are near the front of the listening room, the stereo image produced by the primary pair is broadened slightly (some might say smeared) as the control is advanced. When the second pair is set toward the sides or back of the room, we found the treble control capable of setting instruments floating about the room if not used sparingly indeed. The bass control simply raises the gain at low frequencies for signals passing through the reverb program. Since the low bass in the reverb signal is rolled off to a considerable degree, the bass-control action takes some getting used to.

The problem any artificial ambience device must contend with is that, to operate at its best, it requires a "dry"—that is, unreverberated—input signal. Since recordings made without real or artificial ambience are extremely rare these days, such a signal is difficult to come by. Thus the effect generally produced (to paraphrase an Advent spokesman) is that of *loudspeakers* reproducing the recording (with its own ambience) in the pseudo-environment synthesized by the system. Sufficient adjustments are provided on the Model 500 to allow the user to obtain at least a fair match between the synthetic and recorded ambience, but the process requires a good deal of time-consuming trial and error. We suspect that chronic users of the SoundSpace Control will want to keep notes detailing the optimum settings for particular recordings.

In our listening sessions, we were always able to adjust the Advent so that the music seemed much more spacious and enveloping with the back channels operating. But the piper had to be paid, and the coin exacted in this case was clarity and detail, both of which were compromised to a degree by that additional reverberation. This brought to mind some lingering doubts about artificial ambience systems in general. Is it aesthetically proper to introduce reverberation that the conductor of an ensemble did not know would be there, when the "liveness" of the hall will certainly have influenced his choice of tempo and style of articulation? Or, since in popular music the use of selective reverb (to highlight a vocal, for example) is one of the artistic means available to the producer and engineer at mixdown, is not something lost when these differences are obscured by *ex post facto* artificial reverb? We will leave the answers to individual listeners and their tastes.

Generally speaking, the Model 500 seems well engineered and goes about its task with virtually no annoying side effects. Residual noise, switching noise, alias distortion (intermodulation products created by the input signal and the switching frequency), and low-level fragments of digital confetti are all well suppressed. The back panel runs uncomfortably hot to the touch but never exceeds a safe temperature. Some samples, particularly from early production runs, produce levels of mechanical hum (apparently from the transformer) that may be annoying in very quiet listening rooms. Ask your dealer to demonstrate the very unit you intend to buy.

The Model 500 can be used as a straight delay line without recirculation, although Advent discourages this mode of operation by placing the controlling switch on the back panel and spring-loading it so that it must be secured by a screw. We experimented with delaying the main channels sufficiently to allow the Hass effect—which masks the repetition of the direct signal in the back channels—to come into play. We also tried feeding in some of the various outputs of a matrix decoder that had been languishing on a shelf. The results were mixed, and recounting them in detail here would take more space than we could justify for such nonstandard use of the product under review. But undertakings of this kind could easily fascinate the inquisitive hobbyist.

At the bottom line, we find the SoundSpace Control an interesting, if expensive, gadget that is capable of adding something very worthwhile to a music system. It has side effects to be sure, but these strike us as inherent in the breed. And we can support Advent's claim that the horrid results that misapplied artificial reverberation can produce are very nearly precluded. We are not fully certain how the device should be used or even how we would use it on a long-term basis, but, at least for the time we spent with it, we know it can be a lot of fun.

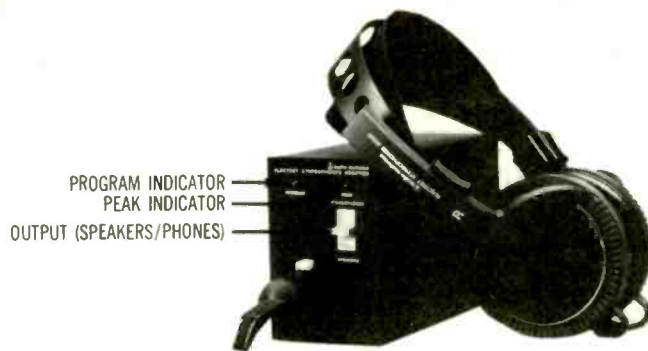
Advent Model 500 SoundSpace Control

Output at clipping	
reverb mode	1.45 V
direct mode	5.50 V

Input characteristics, reverb (re 0.5 V; noise A-weighted)			
Sensitivity sw.	Sensitivity	Overload	S/N ratio
high	58 mV	0.25 V	82 dB*
mid	180 mV	0.78 V	71½ dB
low	560 mV	2.5 V	63 dB

Input characteristics, direct (re 0.5 V; noise A-weighted)			
Sensitivity sw.	Sensitivity	Overload	S/N ratio
high	58 mV	0.62 V	97 dB
mid	180 mV	2.0 V	91½ dB
low	560 mV	6.2 V	83 dB

*Clips at 0.5 V; S/N ratio at 0.25 V (onset of clipping) is 76 dB.



A Second-Generation Electret Headset

Audio-Technica ATH-7 electret condenser stereo headphones, with speaker-connection adapter. Dimensions: 2¾ by 3½ inches, 7 inches deep (adapter); 8¼-foot straight cord, special plug. Price: \$149.95. Warranty: "full," one year parts and labor. Manufacturer: Audio-Technica, Japan; U.S. distributor: Audio-Technica U.S., Inc., 33 Shiawassee Ave., Fairlawn, Ohio 44313.

Three years ago to the month we reported on Audio-Technica's AT-706, a then new electrostatic headset using an electret (an electrostatic analog of a permanent magnet) to provide the necessary polarizing field. At that time, the report's conclusion was that the headset was excellent. To our pleasant surprise, Audio-Technica's ATH-7, which also puts the electret principle to work, constitutes a strong bid to make excellence a tradition, for it outdistances its predecessor in almost every way.

Comfort, whose absence is often the bugbear of otherwise impressive headset designs, is well served by the new model. The leather-lined earpieces are kept in secure though gentle contact with the ear, so that they will neither flatten your pinnae nor fall off at every opportunity. By and large, rather than cradling your ears in sensuousness, the ATH-7 simply lets you forget you're wearing it.

Because of its electrostatic operation, the headphone requires an associated impedance-matching device, which lives in a small box that must connect directly to a loudspeaker output. (A headphone jack will not do.) Like most adapter boxes that hook up in this way, that of the ATH-7 is equipped with a duplicate set of loudspeaker connectors that allow you to select either the speakers or the phones via a switch on its front panel. The only reservation we have about this arrangement is that an inefficient 4-ohm speaker might find some of the current it needs choked off by the fairly light-gauge connecting cables. In contrast to the AT-706, the ATH-7 accommodates just one headset per adapter box. The cable that joins the two weighs little and is long enough to allow considerable freedom of movement.

Another refinement of the adapter is a pair of LEDs triggered by the input signal. A green one glows to show normal operation, varying in brightness with signal level; the red one announces that overload, with possible damage, is manifest or impending—though it can be allowed to flash intermittently, according to the owner's manual. If this suggests a

headset of limited dynamic range, nothing could be further from the truth. The power-handling capability and the subjective sense of loudness are such that we would worry about our hearing more than about the system itself.

Like most of the better headsets sold these days, this one offers little in the way of sonic isolation. Though the music easily masks low-level ambient noise, the noise may be disconcerting during pauses. Another headphone characteristic exemplified by the ATH-7 is the tendency to perturb the imaging in regular stereo (as opposed to binaural) program material. Somehow this model's extreme clarity makes this less disturbing than it is in some others. Although a normal stereo image is nice to have, it is not essential as long as the pseudo-locations assumed by the sound sources are stable, and we are satisfied that any wandering you hear will not be the fault of this headset.

While the earlier AT-706 can be induced to break up and "sizzle" at levels of loudness that are otherwise tolerable, the present unit cannot. The awe-inspiring bass-drum pulses on the Telarc recording of Frederick Fennell and the Cleveland winds are taken right in stride. Distortion seems so low (and resembles so much the behavior for which phono cartridges are the likeliest culprits) that we cannot say with certainty that we hear any distortion at all from the phones. And, to our ears at least, the frequency response makes an excellent impression. It requires tone controls only to compensate for the loudness response of our ears, boosting the bass at low levels and cutting back as the volume is advanced.

Being as free of coloration as it is, the ATH-7 makes a fine analytical tool—without the overcrispness and artificially quick-sounding transients such a designation often implies. The sound is utterly natural in these respects. But the headset also gives no quarter in exposing compression (particularly when the stereo channels do not track each other exactly), poor mike placement, and sloppy "multichannel mono" mixing. In our experience, recordings made with two—or, at most, three—mikes seem to deliver the most plausible stereo image.

But such analytic pursuits are not requisite to the enjoyment of the ATH-7. Feed it through a clean amp reproducing an honest signal source, and the vivid, almost palpable sound that results can delight and amaze you—even if you don't like headphone listening. In the short time we have known this model, it has taken a place of honor among our favorites.

CIRCLE 133 ON PAGE 99

Annus Mirabilis: 1978. Although musicassettes came of technological age some time ago, in the past year their production and repertory has expanded explosively. To demonstrate the diversity of manufacturers, music, and performers currently available, I'm reporting here on representational classical releases of no fewer than twenty-six active producers—bulletting labels that have made their cassette debuts in the last twelve months. As usual nowadays, all musicassettes are Dolby-encoded; unless otherwise noted they list at \$7.95 or \$7.98 each and meet (or surpass) normal current executant and technical standards.

• **ABC CLASSICS.** Six debut releases have been announced (via GRT), but none has reached me in time for a firsthand report.

ADVENT. Joel Cohen and the Boston Camerata fascinatingly expose the "Roots of American Music" by contrasting Renaissance melodies with their New World traditional-song metamorphoses (E 1062, \$8.95).

ANGEL. Sir Adrian Boult and the London Philharmonic evoke the glorious British past in the irresistibly stirring symphonic marches of Walton (two) and Elgar (seven, including all five *Pomp and Circumstances*; 4XS 37436).

ARCHIV. The gentlest aspects of Vivaldian music-making are explored by lutenist Konrad Ragossnig in the familiar P. 209 Concerto, the charming P. 266 Lute/Viola d'amore Concerto, and two seldom-heard trios for violin, lute, and continuo—the last three with Eduard Melkus (3310 376, \$8.98).

ARGO. Vivaldi's more characteristic unflagging vigor and captivating humor distinguish four winds-and-strings concertos (P. 273, 264, 70, 440) superbly played by Neville Marriner's Academy of St. Martin-in-the-Fields soloists and ensemble (KZRC 839).

• **CCC/ORION.** Pianist/engineer David Hancock, cellist Alexander Kouguell, and violinist Gerald Tarack provide a worthy French companion to their Debussy's enigmatic cello sonata, Ravel's sardonic violin sonata, and Poulenc's surprisingly powerful violin sonata (C 70).

COLUMBIA (Melodiya). Pianist Lazar Berman brings his distinctive personality and uncommon virtuosity to bear on Scriabin's romantic but intricate First and Third Sonatas (MT 34565).

DEUTSCHE GRAMMOPHON. Daniel Barenboim's idiosyncratic interpretative approach to the four Schumann symphonies and *Manfred* Overture may not be as widely appealing as the Chicago Symphony's playing,

by R. D. Darrell

The Tape Deck

especially in the too rarely heard *Konzertstück* for four horns (Prestige Box 3371 035, \$26.94).

EVEREST. Gershwin's own 1925 Duo-Art solo performance of the *Rhapsody in Blue* is effectively recorded anew, with his earlier piano-roll performances of four unfamiliar and unidentified pop songs (3371, \$5.98).

• **PHILIPS FESTIVO.** The far-too-scanty art-song tape repertory is enriched by a reissue of the 1965 Gérard Souzay/Dalton Baldwin complete Schubert *Schöne Müllerin* cycle 7310 076, \$6.98).

• **HUNGAROTON.** No Schumannian will want to miss the unjustly neglected Op. 148 Requiem, coupled with the slightly more familiar Requiem for Mignon, Op. 98b—both by Budapest soloists and chorus with the Hungarian State Orchestra under Miklós Forrai (MK 1017).

LONDON. The empathic team of Itzhak Perlman and Vladimir Ashkenazy brings exceptional verve and sparkle to the first complete musicasset set of all ten Beethoven violin sonatas (Prestige Box CSA5 2501, \$39.95).

MUSICAL HERITAGE SOCIETY. Aileen James and her University of California colleagues provide truly offbeat Americana: the Piano Quintet in E minor, Op. 103, by Arthur Farwell, best known for his American Indian-influenced works (MHC 5827; \$6.95 list, \$4.95 to members).

• **ODYSSEY.** A bargain is the reissue of the "complete" ten Handel flute sonatas in the brightly bravura 1965 versions by Jean-Pierre Rampal and Robert Veyron-Lacroix (YT 32371/2, \$4.98 each).

OLYMPIA. (No new releases from this Everest subsidiary.)

• **PETERS INTERNATIONAL.** The music may be familiar in other arrangements, but pianist Vincenzo Balzani's strong-fingered performances of all ten of the engaging Rossini-Liszt *Soirées musicales* are the first on tape (PCE 022).

PHILIPS. Beethovenians turned off by the vehemence of the generally extraverted Beethoven symphony sets conducted by Herbert von Karajan and Georg Solti are sure to find the more restrained, lucidly eloquent Ber-

nard Haitink/London Philharmonic set more lastingly satisfactory (Prestige Box 7699 037, \$53.88).

• **DG PRIVILEGE.** If you've never heard the near legendary, quintessentially Russian 1961 versions of the last three Tchaikovsky symphonies by Eugen Mravinsky/Leningrad Philharmonic, their latest reissue should not be missed (3335 235/236/237, \$6.98 each).

• **QUINTESENCE.** The memorable early-stereo Pierre Monteux/Boston Symphony recording of Debussy's *Nocturnes* is reissued together with an unobjectionable "electronic-ster-eoization" of their perhaps even greater *La Mer* (P4C 7027, \$4.95).

• **RCA GOLD SEAL.** One of the few releases in this series that apparently was never before available on discs in this country is the 1971 romantically warm André Previn/London Symphony combination of Mendelssohn's *Italian Symphony* and *Ruy Blas* Overture, plus a more routine Prokofiev *Classical Symphony* (AGK 1-2703, \$4.98).

RCA RED SEAL. The recent opera-box reissue of the 1960 Puccini *Turandot*, starring Birgit Nilsson, Renata Tebaldi, Jussi Bjoerling, and Giorgio Tozzi with Erich Leinsdorf and the Rome Opera—a supremely great performance—is remarkably impressive sonically too (ARK 3-2537, \$23.98).

• **SERAPHIM.** One of Sir Thomas Beecham's last recordings was the airily transparent stereo remake, this time with the French National Radio Orchestra, of his justly celebrated reading of the Berlioz *Symphonie fantastique* (4XC 60165, \$4.98).

SINE QUA NON. Continuing its series of reissues as well as new recordings, processed on low-noise, high-energy TDK tape, SQN goes back to some of Julian Bream's earliest releases (for Westminster, 1956-57): the five Villa-Lobos Preludes for Guitar and guitar arrangements of Bach's Chaconne, S. 999 Prelude, and S. 996 Sarabande and Bourrée (C 7765, \$4.98).

• **SUPRAPHON.** Several requested releases—including the Janáček opera, *The Cunning Little Vixen*, 1 12 1181/2, \$15.96—from the recently announced list of some sixty musicasset programs haven't yet reached me.

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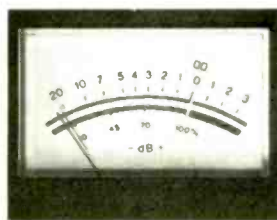
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THE BROADWAY VOICE: PART I JUST SINGIN' IN THE PAIN

... TO ARGUE THAT SOME SINGERS BELT AND SURVIVE HAS ALL THE WEIGHT OF OBSERVING THAT SOME PEOPLE SMOKE THREE PACKS A DAY AND LIVE TO EIGHTY . . . "

BY CONRAD L. OSBORNE

WITH THE CONSUMER'S interest ever at heart, I open with complete and accurate labeling: Here follows a serious critical consideration, containing some material technical in nature, of *The Broadway Voice*. By this I mean the uses to which human voices are put in the American popular musical theater.

If scarcity determines value, then this article is an instant collector's item, guaranteed the one, the only, the incomparable. There simply isn't any literature on the subject. If you rummage long enough through the junk biographies of pop composers and performers, the reviews of Broadway openings, and the liner notes of show albums, you will do well to fill a couple of index cards with your findings on the subject. And even with resort to the handful of reference works, competent biographies, or knowledgeable commentaries on the form, you will do no better than a passing remark here, a parenthetical note there. In this respect the literature fairly accurately reflects the art form it takes for its subject: a great amount of tiresome formula entertainment, a much smaller collection of rather diverting and clever entertainment, and only very occasionally the suggestion of substance or durability. Theater and music critics of stature, I would gather, do not find the subject of sufficient interest to merit close attention.

Why, then, bother? I have three reasons. The first, the most immediate and personal, relates to my occupation

A number of students, performers, and colleagues have helped in the preparation of this article through discussion and by directing my attention to specific recorded performances. They are too numerous to list, but I should especially like to acknowledge the generous assistance of Miles Krueger, Jon Conrad, Danny Schweid, Cynthia Wells, and Molly Regan.

The article is an argument supported by selective example; it has no discographic function and does not survey the form or pretend to completeness. I should like to emphasize that the examples are not intended as rounded critical judgments of the work of the artists discussed. Many of the performances cited as negative example are highly enjoyable and effective (even in recorded form) in extravocal ways. I have deliberately focused on vocal considerations because they are generally slighted.

Some of the pitch citations have been based purely on record listening, without reference to score. They may, therefore, appear here as enharmonic equivalents. C.L.O.

as a private voice teacher in New York City, where a high proportion of the student population consists of aspiring performers who wish to make careers in musical comedy, or at least to sing well enough to open up the "triple threat" employment possibilities of the "actor who sings and dances," the "dancer who acts and sings," the "singer who acts and dances." Many of these students are engaging and energetic young people; some of them are quite talented, and their aspirations are entirely valid and understandable even when they carry more commercial than artistic weight. Such performers are also, more often than not, inviting morsels of very temporary sustenance for a cannibal industry whose trendy, cashbox standards they are in no position to contest or to soberly evaluate with respect to their cumulative effects on mind, body, and psyche. I daily share their fight for existence (the struggle to survive till employed, then the struggle to survive while employed—let alone to keep an eye on, and work toward, an artistic goal).

My second and third points of connection concern the achievements and potential of the form itself. Point No. 2: There is certainly a place in our lives for entertainment as well as for art, and the quality of such entertainment depends at least as much on performance expertise as does the quality of theatrical art. And No. 3: The mass of evidence to the contrary notwithstanding, I still believe in the possibility of artistically significant work in the Broadway context. By coincidence, my own period of aspiration and involvement in the theater fell at the time of greatest promise in this area—I was vouchsafed glimpses of the vision, and they have never completely vanished. From the mid-Forties to the late Fifties, we saw a burst of creative activity that produced an astonishing quantity of distinctly likable entertainment that seemed to be solidifying a form capable of bearing some artistic burden. We also saw the early successes of Menotti (on Broadway, it should be recalled, not in the opera house), and the evident maturation of at least a few creative talents (most notably those of Leonard Bernstein and Frank Loesser) that seemed compositionally complete enough and ambitious enough to

bend the form to something of real importance. We felt on the brink of it, with a sense of anticipation that was nicely summarized by Bernstein himself a while back at a Whitney Museum retrospective concert devoted to his theater music. We were waiting, he remembered, for "some great genius like Mozart, who would do for the musical comedy what Mozart did for the Singspiel when he wrote *The Magic Flute*. But that breakthrough never happened." The quote is probably inexact, but the gist is there, and with a certain poignancy for at least some of us, who had thought that the man for the job was the man who said those words.

Even without that breakthrough, it is still true that in a handful of individual pieces (headed by *Porgy and Bess*, Weill's *Street Scene*, and *The Most Happy Fella*) and in the best of Menotti's, Broadway has come at least as close as either the operatic or academic establishments to creating a body of work of the sort we must have if we are to develop an American music-theater form of lasting value: the sort that aims for true artistic expression in a language that does not disdain communication with fellow beings of merely reasonable intelligence, knowledge, and sentience. In the Broadway theater, I am convinced, there still exist the resources of energy, talent, money, and audience to make that happen, provided we can locate the nerve and the ambition.

For these reasons, then, I would like to examine vocal usages in our musical theater, hoping that my "classical" orientation may contribute some of the needed critical perspective, and suggest some of the potentialities that are fairly consistently overlooked. It is my opinion, held somewhat loosely for many years but much bolstered by the specifically directed listening and reading done for this article, that these usages are not only vocally destructive to a shameful degree, but that they are expressively limited in ways that drastically shorten the aesthetic range of the form. Admittedly, they open up certain types of expressive gesture denied the purely "legit" vocalist; but I hope to show that more is lost than gained, while at least some of the gain could be retained through moderate exercise of common sense and care. Further, these usages are by way of becoming so standardized that nearly everyone who labors in the field—those who hire and are hired, those who are trying to be hired or dream of one day being hired, and even many of those who teach and critic—have come to accept the aberrational as the normal and to assume that "the human voice" is quite generally and "naturally" (they love that one) conditioned as heard in our popular musical culture. On this subject, our musical theater world has developed a devastating case of placenta vision that is fast turning chronic.

The factors that most strongly affect vocal behavior and endurance fall into two categories. The first is the technical or functional (how voices are developed, extended, and balanced in training, how they are then handled in rehearsal and performance), and the second is the environmental, which in the case of the Broadway theater raises such issues as rehearsal schedule and pacing, frequency of performance, the expected vocal characteristics attached to standard role types, the prevalence of between-numbers dialogue that is often strenuous or caricatured in nature, the difficulties raised by orchestration of accompanimental passages, and the presence of amplification. All these factors tend to interact in a sort of feedback system, so that those in

the first category are at the mercy of those in the second, and training becomes a question of devising means to meet environmental demands that are inherently unhealthy. The scene is not awash in sanity.

If one is assuming a critical stance toward a practice, to the point of rejecting some of its basic assumptions, then one is probably employing a standard drawn from some other practice, an outside reference point. I should like to make clear what mine is, and the reasons I feel it applicable (already I hear the cry from the Seventh Avenue delis, the aftershow bars, the waiting lines at the open calls: "This ain't *opra*, ya know!", and a mock-soprano wobble). Nah, it ain't, and as I believe the published record bears out, I'm not too tolerant of that wobble myself. But I would urge that we look past our cultural prejudices and social reflexes for a moment, and try to examine existing models for their actual behavioral advantages and drawbacks. It couldn't hurt, right?

I propose operatic usages (good ones, of course) as a standard of comparison, and insist on their relevance, because they have gotten more out of the human voice, both expressively and functionally, than any others. During the more than 300 years of this model's existence, it has of course undergone changes, some of them fairly radical. These changes came about under the pressure of fresh demands posed by development of the operatic and related forms, and through a process of natural selection within a broad cultural context—that is, trial and error in efforts to see how far vocal communicative capabilities could be extended, and which usages worked best in terms of versatility, reliability, and durability. The usages coalesced in something very like their present forms about 150 years ago, but throughout their history have held certain important goals and principles consistently in view.

In any system of vocal cultivation, including those implied by Broadway usages (I say "implied by" because in this case such a system can scarcely be said to exist), there are two types of goals, the aesthetic and the functional. I shall have something to say about the interrelationship of the two types shortly, but since aesthetic goals are generally and understandably considered mostly a question of taste, let's look first at the functional ones.

Functionally speaking, the most advanced voices have been considered to be those that obtained working access to the widest pitch ranges, that showed the greatest capability of variation in dynamics, that demonstrated the most behavioral flexibility, that proved easily audible under various acoustical conditions, and that attained a high level of verbal comprehensibility. Among these five goals, different proportions have served different sets of expressive needs—the operas of Handel, for instance, call for different vocal behavior than those of Wagner. These differences can be served so long as a certain balance among achievements toward the goals is observed, though the variation is important enough to make the single voice that is capable of two such dissimilar sets of behavior a rarity.

These goals would appear to be more or less unarguable: It is not easy to make a case for short pitch range or narrow dynamic range, for behavioral stiffness, for inaudibility or incomprehensibility. In working toward these goals, some basic principles were formulated at least as long ago as the early seventeenth century; they

appear in the earliest extant references, and still underlie the current systems of voice development, however much these may contrast in other ways. First, it was observed that all human voices display disparate qualities, which manifest themselves under different conditions of pitch and intensity. The equalization and joining of these qualities was assumed to be desirable, partly for the most basic of aesthetic reasons (any human activity tends to be more meaningful, communicative, and pleasing in an integrated state than in a fragmented one), but for functional ones as well (application of energy to a fragmented condition produces activity that is uneconomical and self-contradictory, and renders the functional goals unobtainable). Second, it was apparent that the goals of audibility and comprehensibility, in particular, depended to a large degree on the clarity and completeness of vowel formation. Furthermore, each of these areas of work (uniting the qualities, purifying the vowel—or, to give them their modern terms, registration and resonance) affected the other. Out of these observations grew the classical concepts of tonal connectivity (*legato*) and pure vowel formation, and the rules for control of intensity and vowel color in developing an untrained voice. They were decided upon because they worked.

It would be spurious to suggest that the rules were arrived at in quite so logical a way. It is self-evident that at many junctures, aesthetic ambitions set particular goals that gave rise to particular usages, and that accounted for changes in emphasis among the ongoing goals. The passion for extreme floridity in much late seventeenth- and early eighteenth-century opera, for stratospheric range extension of the male voice during a brief period in the early nineteenth century, or for verbal clarity under daunting conditions in some twentieth-century opera, are all examples. They have had the effect of testing, and proofing, the traditional rules; where one goal has been exalted at the expense of the others and the balance made disproportionate, the usage has resulted in more loss than gain, and has tended to adversely affect the functional stability and longevity of the users' voices. This has been especially true of usages that emphasized audibility and comprehensibility at the expense of the more purely musical capabilities, and for this reason they have tended to be regarded as undesirable and even dangerous by the majority of singers and teachers.

Before examining the immediate subject, I feel I must lay to rest the question of taste. Taste is represented as the crucial issue by nearly everyone I have occasion to discuss the subject with, and is put forward as grounds for dismissal of all argument. Regrettably, classically oriented commentators and teachers frequently provide the faggots for their incineration with their own unsupported taste assertions and a great deal of tongue-clucking about the raucous noises of the vulgar multitude, so that the arguments on both sides are analyzable in terms of social psychology rather than aesthetics or functional dynamics. Debate over the freedom of aesthetic choice is silly.

But to what extent is taste really the issue? Vocal pitch range, dynamic range, flexibility, audibility, and comprehensibility are not at all matters of taste; they are matters of measurement by perfectly accessible standards. So are vocal longevity and health—five years vs. forty years, vocal discomfort and dysfunction vs.



“...MERICAN IS WIDELY CONSIDERED
THE MOTHER OF BELT . . .”

Drawings by Warren Linn

functional and medical stability, are not nuances of cultural preference.

Taste seems to me applicable in only two areas of vocal performance: One may certainly prize particular capabilities more than others, and one may find particular tonal qualities more pleasing and stimulating than others. But even here, one's right to a preference must not be mistaken for an equality of appreciation based on knowledge. I surely have the "right" to prefer some types of food to some others, but a good nutritionist and internist are apt to have a better slant than I on how complete those foods are and how they are likely to affect my intestinal tract. And the catch is that not only does emphasis on selected vocal capabilities have measurable effects on the others, but the various degrees of functional development, freedom, and health result in quite recognizable tonal qualities which may with perfect fairness be asserted as functionally "better" than others. The ability to discriminate among these emphases and qualities is the basis of all progress in the teaching of voice, or enlightened criticism on the subject.

If we apply the standards regularly met by successful classical singers in each of the five areas defined above to the going Broadway usages, this is what we find:

1) *Pitch range*: Whereas by classical definitions the human voice (I mean all voices, combined) has a working compass of four octaves or a trifle more (roughly three octaves open to each sex, with about an octave and a half of overlap, female voices pitched an octave above male in corresponding categories), and in most operatic scores is required to cover at least three and a half, the collective range of use in the popular musical theater is not usually much more than two, and frequently less. Since this compass embraces the entire overlap range, there exist only a few pitches at either end of the compass accessible to singers of one sex but not the other. Individual voices, expected in opera to cover two octaves or more of integrated, connected tone, are generally restricted to somewhere between an octave and a third and an octave and a fifth in the popular usages; frequently, entire roles cover a span of hardly more than an octave. Range categories (three for each sex, with subdivisions, in classical definitions) are much reduced, often blurred, and indeed not much used.

2) *Dynamic range*: Since few Broadway voices develop anything like the ability to be heard with large accompanimental forces in theaters seating between three and four thousand, unamplified, and seldom have the ability to sing projectively at softer levels, the range is clearly narrow. Capacity for swelling from soft to loud, even within narrow limits, is seldom encountered. See the discussions, below, of amplification and accompaniment.

3) *Behavioral flexibility*: A few Broadway singers demonstrate some control over vibrato, or a rapid articulatory facility. In some of the embellishments derived from rhythm-and-blues or country-and-western usages or in some parodistically intended effects, an ability to draw on registral separation is shown. Recently, these usages show extensions of some interest in the male voice in rock-influenced writing. Sustainment of a good legato is rare, and there is virtually no sign of

any capacity for velocity or ornamentation in an integrated format.

4) *Audibility*: Hard to say, since the acoustical conditions have been so radically altered. Most of the voices display patterns that lead one to conclude that, without amplification and against considered accompaniments, they would project decently at high intensity, but not in soft singing. In my experience, this guess is repeatedly supported by exposure to such voices under nonperformance conditions, i.e., in the studio or in unamplified rehearsal.

5) *Comprehensibility*: In general, the level here is quite high. However, it is much aided by the fact that nearly all the writing is "talky" and mid-ranged; as soon as it becomes more extended and "singing," vowel distortions and the strain of meeting other demands not within the singer's technical capacity wreak havoc. This goal tends to dominate the others.

The tonal qualities displayed are exactly those one would expect of such functional structures, and the expressive range has the predictable strengths and weaknesses. A look at the common usages, with a few examples, will clarify what I mean.

If you were to scan the casting notices of the theatrical trade weekly *Backstage* (a practice I can commend to you if you wish to feel better about your own business), you would find that female voices evidently fall into two categories: "belt" and "legit." Most often these are treated as separate entities, but sometimes they are represented as belonging to the same singer, as in "belt with legit" or "mostly legit, but must be able to belt." Occasionally they are intermixed with the more traditional categories, which are themselves mixed: "belt with coloratura quality," "belt/mezzo," "alto-soprano" ("must have wide singing range," says one ad—I guess so!), or on the male side, "tenor-baritone." Frequently, ranges are specified: "must belt to C and have soprano B flat," or "legit, have easy G."

Obviously, "belt" and "legit" reflect the classical registration categories of "chest" and "head" (I loathe these extremely misleading old terms, but they are widely if approximately understood, and there is not space here for the extended essay that would rationalize preferable substitutes). But they are not synonymous with "chest" and "head": Almost all female operatic singers, especially in the lower categories, make use of chest-dominated tone in the lower range at the higher intensities, yet do not produce the quality we identify as "belt." Nor is "belting" simply loud singing—an operatic mezzo or dramatic soprano singing forte at, say, the B flat above middle C is not "belting," and neither is the operatic tenor making a climactic effect at the identical pitch (the infrequent exceptions are the basket cases of the operatic world, seldom heard in public).

The belt is an invention of the 1940s. Before that decade, the lower female roles in musicals, including character parts, were sung in a variety of co-ordinations that ranged from operatically derived "legit" to what would today be thought of as a polite pop sound. While they were seldom rangy in operatic terms, they nearly all contained some writing that could not be rendered except by some sort of head-dominant co-ordination. If your instinct is to doubt this, you have only to consult the multitude of recordings left by those earlier per-

formers—but be sure to stick to their own recordings, not to those of later reconstructions and revivals, or to stylings of their songs by latter-day singers.

Ethel Merman is widely considered the Mother of Belt, and perhaps she is, but my favorite narrative of the Birth of the Belt is drawn from a recent video vignette. In this scene, Celeste Holm is being interviewed by Dick Cavett, and is re-creating a Legendary Moment in Musical History. She relates how, as an established actress with no musical credentials, she prevailed upon the Theater Guild to let her audition for Richard Rodgers and associates during the casting of *Oklahoma!* (1943); how, with a background of traditional vocal training, she sang for them Schubert's "To Music"; how nice Rodgers thought that was and how excited to discover Holm's trained voice; how he then asked her if she could sing something in a "completely untrained voice, like a kid"; how Holm allowed as how she could hog-call, and did (demonstration: "Sooo-ie!"); and how Rodgers thought that was terrific and forthwith cast her (though with constant admonitions of "louder!" during the rehearsal period) as Ado Annie, which along with Merman's Annie Oakley (*Annie Get Your Gun*, 1946), Vivian Blaine's Adelaide (*Guys and Dolls*, 1950), and a few others can be considered the prototypical belt role.

Now, if we listen to Holm's rendition of Ado Annie's principal number, "I Cain't Say No," we hear an extremely uncomplicated sound. It has no audible vibrato (a "straight" tone), and does not alter in texture over the song's restricted compass. It grows weak at the bottom and loud toward the top, and does not give the impression that the singer has any choice in this matter. Though the tops of the higher phrases give the impression of being "high," we note that they fall only in the area of B and C above middle C—high for a male voice, but only in the very center of a developed female one. The technique preserves the phonetically open vowels and constrictive diphthongs of the character's dialect, without any of the rounding that a "cultivated" singer would observe above the register break around E or F. Indeed, we observe that a thin but definite chest co-ordination has been made to stretch upward (with the expectable impression of an impending "snap" toward the top) for the entire compass of the song, which lies between comfortable tenor and contralto tessituras, but is closer to the former.

And that is precisely the nature of the belt: It is an attempt to extend the normally "short" female chest register upward. A fifth or sixth can be incorporated in this fashion, by driving the co-ordination at a high intensity and in a shallow adjustment (the deep, booming chest voice of the operatic dramatic mezzo, if driven upward with no modification, will have a wreck around G or A flat, and the resulting hole in the voice will be awesome). When secure, the belt produces an edgy, driving sound. Because of the tension involved in holding the position, vocal qualities associated with relaxation (vibrato, ability to sing at less than full intensity), as well as all those associated with the integrated head register it sends packing (sweetness of tone, ductility in phrasing, flexibility of movement), are closed out. There is no such thing as a quiet belt, or a beautiful one.

This same pattern (a range of about an octave and a third, seldom more, ending around C or C sharp; monotonous high intensity that increases with every ascent; a driving, blatant sound with open vowel formation) will



∴ BARBARA HARRIS' ROLE IN APPLE TREE IS AN ADVANCED EXERCISE IN SEPARATION OF THE [BELT-MIX] VOICE"

be found in every "pure belt" performance. The singing of Carol Channing in *Gentlemen Prefer Blondes*, Carol Burnett in *Once Upon a Mattress*, Susan Johnson in the Columbia remake of *Brigadoon* and in *Most Happy Fella*, Kaye Ballard in *Carnival*, Karen Morrow in *The Grass Harp* (an especially ferocious example), Carole Bishop in *Chorus Line*, Robin Lamont in *Godspell*, Chita Rivera in *West Side Story*, or Merman in any of her roles, at least from *Annie Get Your Gun* onward, are representative examples.

The question of functional health momentarily aside, I believe a case can be made for the belt as an expressive device. Its uncultivated sound is well adapted for such characters as Ado Annie or Annie Oakley, as Rodgers perceived. The bright, often harsh and edgy sounds of certain American dialects and accents emerge with characterful impact in belt, and would actually be hard to dissociate from it—if you try to imagine *Oklahoma!*'s Laurie and Ado Annie, or Sarah and Adelaide in *Guys and Dolls*, swapping timbres but retaining accents, you will see what I mean. The very musical incongruity of the sound can be employed successfully for caricature, to convey the cheerfully vulgar or the downright uncouth (Burnett's performance in *Mattress* is a prime example), and most of the earlier examples are in "comedian" roles. When set in an otherwise "legit" context, as in the part of Cleo the Waitress in *Happy Fella*, it becomes a means of signifying character type or social station. Toughness, or "crust," is suggested by the belt, and because of the strain and peril associated with its more intense forms, it can give the impression of considerable pain and anguish of a direct, personal sort—we are sure the singer is truly suffering, and if the voice actually disintegrates under the pressure (think of the older Judy Garland), so much the better. This usage is widespread among female recording artists. *Angststimme*.

But here we touch on the severe expressive limitations of the belt. Apart from the musical monotony implicit in such a narrow span of frequencies and dynamics, its overtone structure and coloristic possibilities are so impoverished as to render any complexity or richness of expression impossible. The vocal scoring of *Happy Fella* cleverly conveys this. Cleo sings in belt precisely because she will remain, essentially, a type, undergoing no development, remaining to one side of the central dramatic action, and contributing a certain social point of view as well as comic relief (the uses of the "second couple" in musical comedy are exactly those of the old comic opera forms—Cleo and Herman are the Papagena and Papageno of that new *Magic Flute*). For Rosabella, the lead, who must convey a range of feeling and capacity for change, and who must attempt to represent a reasonably complete woman rather than a theatrical stereotype, such a usage is out of the question, and the role is written for "legit" soprano, albeit in a tessitura that by operatic standards would be mezzo. (And mezzo is undoubtedly the voice that should be cast. On the recording, Jo Sullivan of the original cast turns in an earnest, competent performance with a rather white, middle-range Broadway soprano voice. In the fine revival by the Cincinnati Opera last summer, the role was taken to much better vocal effect by Nancy Shade, a large-voiced operatic soprano with a strong lower range, able to "sit" on the line with much greater ease and effectiveness.)

For these reasons, belt has to be combined with some-

thing else to serve any but the stereotyped supporting parts. Even in so successful a belt lead performance as Merman's Annie, one longs for a lyrical sound in "They Say It's Wonderful" (a legit duet in the vein of Kern's "Only Make Believe" or Rodgers' "People Will Say We're in Love"), and even more in "I Got Lost in His Arms," a nice ballad that got lost in this show. Merman is resourceful enough to make it all "work" after a fashion (here is a woman so unpolished she hollers when making love), but we are not athirst for more.

Hence, as belt has crept from its subsidiary position into leading roles, a schizoid mutation has appeared: "belt with legit." It takes two forms. One attempts to simply stack a soprano block on top of a belt block. The other tries to alternate belt and legit sounds in the same range (actually, the two forms are commonly intermixed). There are built-in contradictions contained in both approaches. First, the farther beyond the break one extends the chest voice, the less likely it becomes that the upper register can assert its natural strength and freedom. It is perfectly possible to arrive at full range extension, equality of strength, and functional stability with a fairly marked degree of registral separation (reference to acoustical recordings by the Marchesi-trained sopranos, such as Emma Calvé, Nellie Melba, and Emma Eames, will afford perhaps the clearest examples). But this requires an expertise in training and handling accessible to few operatic singers, let alone Broadway ones, and to accomplish this it is absolutely necessary to ensure that the chest-register action remains dominant only within its natural tessitura. Second, the same factors that account for this law also account for an inequality of intensity between chest and head functions in the area of registral overlap.

This is borne out by observation of the behavior of such voices. In very young or undeveloped female voices (or often in older ones, belonging to performers of considerable accomplishment, for whom the vocal habits have come home to roost) the gap will be very wide, comprising the distance between a raw, loud belt sound and an extremely weak, breathy head voice that in some cases amounts to true phonative dysfunction. At a somewhat more integrated level, the gap will close enough to allow for some mixing and the avoidance of actual disaster, but much breathiness will remain ("styled," of course, to sound sex-kittenish and to appear as an expressive choice), and a considerable middle ground of intensity left out. One encounters this level in many club singers and among show performers on the dinner-theater or summer package circuits. Finally, at the highest integrative levels possible, given these elements, is the handful of star performers with access to sufficient equalization for selective alternation and mixing from which a reasonable expressive range can be extruded. Mary Martin and Barbra Streisand, stylistically different as they are, both represent this type in vocal terms, and there are many others who have achieved at least some expressive success within such a setup—handy examples would be Jill O'Hara (as heard in the original, pre-Broadway version of *Hair*, and not in her later efforts) and Jill Clayburgh (*Pippin*). It's the condition aspired to by most of the artistically ambitious young female singers, and though it violates the classical rules to a significant degree, comparison of these successful examples with the less fortunate conditions described above reinforces the basic classical pre-

cept: The higher the degree of equalization and integration in a voice, the wider its reliable working range and the greater its stability.

In his *Great American Popular Singers*, Henry Pleasants classifies Streisand as a contralto. This refers, I assume, to the working range of her voice, one of the longest among nonclassical female singers, but still hanging a tone or so below that of a competent classical contralto. However, she nowhere displays any of the tonal qualities one would normally associate with a low female voice, and this brings us to an observation that applies across the board to popular singers as compared with their classical counterparts: The timbres are invariably lighter than the ranges would indicate. In classical training, this is a sure indication of something seriously wrong with a voice's balance. Even if such a voice "works" reasonably well, it is unusable in classical contexts because it will not produce quantities and qualities of tone at the right pitch levels to make the expressive effects for which the music was written. Since Streisand has conveniently recorded some art songs, we may easily refer to her rendition of, for instance, Debussy's "*Beau soir*" or Wolf's "*Verschwiegene Liebe*," naturally sung in as "legit" a co-ordination as the singer can muster. There are good things about these interpretations—a long line is well sustained at several points, and mood is nicely caught. On the other hand, Streisand's access to variations of dynamics and color is severely limited. Even on phrases that dip well below the break in the Wolf, no trace of settled chest mix makes an appearance. She cannot swell the tone where expansion is needed, and the phrase "*Gedanken sind frei*" makes it clear why she can't—at the slightest application of pressure, a querulous belt mix threatens to intrude, from which any musically sensitive artist must shrink in this context. The voice's ascent to D at "*que le soir est beau*" in the Debussy puts her near the top of her comfortable range and must be sung without vibrato.

That D is a clue. Streisand is singing these songs in comfortable contralto keys, yet with timbral qualities that belong to a lyric soprano. To pitch them higher would make control of intensity impossible and lose all sense of ease, but to keep them in the lower keys means tiptoeing for fear of tripping over the belt. The middle ground, and the ability to give and take afforded by equalization and integration, is missing.

Still, there is no question as to Streisand's vocal superiority among "belt mix" singers. Her early performance as Miss Marmelstein in *I Can Get It for You Wholesale* (1962) is high-energy pure belt, driven to an altitude of D and E flat, very loud and with no vibrato. It is excruciating, but I guess it's appropriate—take an elevator in any garment-district building at lunchtime and you'll hear the same sound. *Funny Girl* (1964) shows the range of her abilities more completely. Unlike pure belters, she is able to "thin out" the mix in the vicinity of C or C sharp (though the sound here is very nasal). By this means, she can drive as high as F at high intensity (in "Cornet Man") or even, on the right pitch with the right vowel (E flat on an e in "People"), switch into a head tone of some strength and quality. In the middle range there is a comparative smoothness of transition from lyrical sounds into belt; the intensity gap is de-emphasized and the headier sounds have some clarity.

This upper extension (by belt definition, it should be emphasized—the tessitura is still quite low for a female



“.. THE VOCAL DIFFERENCE BETWEEN STREISAND AND THE PURE BELTER IS THE PRESENCE OF A GREAT DEAL MORE HEAD REGISTER . . .”

voice) and the better-than-average dynamic command make it clear that the vocal difference between Streisand and the pure belter is the presence of a great deal more head register. This is obviously true of most of the successful belt-mix singers—there is more head in the co-ordination to begin with, and the belt is usually more lightly treated. Mary Martin's belt sound, for example, is almost delicate by comparison with most, though noticeably more so in the relatively unaggressive writing of *South Pacific* (1946) than under the demands of "Flaming Agnes" in *I Do, I Do*, which is also twenty years down the pike. *Sound of Music* (1959) is rendered predominantly in her very pleasing, though weakish, "legit" sound, whose chief deficiency is that she cannot put any strength on it except in the upper-middle voice. Again (in all three roles), the sounds are light, the tessitura low; an instructive comparison can be made right on the *Sound of Music* album, where Patricia Neway, an operatic dramatic soprano singing in the rather fruity mezzo co-ordination with which she provided Broadway with much weepy inspirationalism, sings "Climb Every Mountain" in a tessitura higher than most of Martin's, yet sounds far deeper and "lower."

The higher proportion of head in the good belt-mix vocalists gives them a degree of protection, I think, even when they belt. Merman herself, though she seldom makes recognizable use of it, seems to have had a fair level of head strength at her disposal from the start—listen to the timbre displayed by her earliest recordings (1932–35—there is a collection on Columbia Special Products ACL 2751, along with some Mae West and Lyda Roberti material), or to the isolated imitation-operatic top G in Annie Oakley's "Anything You Can Do I Can Do Better."

Naturally, the possibilities indicated by the belt-mix stars have led to some extremely challenging writing in which demands are extended in both directions. *I Do, I Do* is an example, as are the female leads in *Apple Tree* and the current *On the Twentieth Century*, and the Joan Diener roles in *Kismet* and *Man of La Mancha*. In these parts, the contradictions verge on the homicidal. The long triple role in *Apple Tree* incorporates a searing heavy belt, a caricature baby-belt, breathy ballad voice, and a high D (no, a real high D, though it should in fairness be noted that it is an interpolation). It is an advanced exercise in separation of the voice—Barbara Harris', in this instance.

Diener is a fascinating phenomenon, a singer who shows considerable, and nearly equal, strength in both registers, but handles them in almost total isolation, with a preponderance of chest tone taken into belt territory (B flat, B natural) because of the nature of the writing. "Not Since Nineveh, Not Since Tyre" (*Kismet*) is delivered mostly in a powerful chest, only slightly thinned out around A, then capped by a good, soaring operatic high B flat. The double role of Aldonza/Dulcinea in *La Mancha* is the only instance I know of an artistically logical use of such separation (genuine vocal split personality), and though the painful strain of the stretched chest is apparent, Diener is still able to provide fairly settled, attractive mezzo-ish sound for "What Do You Want?"

Judy Kaye, the "overnight-star" replacement for Madeline Kahn in *Twentieth Century*, is faced with the problem of achieving contradictory goals within a more integrated context. The role embraces much heavy,

wordy writing in the middle that would seem to imply a belt mix; yet it must extend in both directions (particularly upward), well past the territory accessible to such a mix. (In operatic terms, it lies in mezzo range.) Kahn's voice (heard on the recording), basically attractive but quite feebly developed in both registers and not at all integrated, cannot solve the role. Kaye's can, at least for the time being. It is far more powerfully developed, with a near-operatic strength on the head side. Although she belts, she does so against a far tougher co-ordination, and she often overlays it in the middle with head function of a slightly "covered" sort. One would expect, in time, that either an increased separation will become apparent or that the intermixing of too much chest will slowly drag the voice down. But for now, she is singing, with power and clarity, every note of this dangerous part. On Broadway, that's a shock, and audiences love her.

If such writing is dangerous, where is the evidence? Isn't it true that some Broadway singers survive, even in such roles, and equally true that operatic singers encounter vocal difficulty and undergo career-shortening crises? Yes it is, and I believe in due care on the case. We will probably never have scientifically satisfactory proof of cause-effect relationships between vocal co-ordinations and vocal wear—I cannot imagine the circumstances under which all the other variables (general physical and health factors, conditions and frequency of vocal use, differences of age, sex, vocal type, technical demands of music sung, etc.) might be neutralized, controls established, and a single technical factor isolated. Indeed, we will probably never even assemble an important body of statistical evidence in such a matter.

Nevertheless, it seems to me that such evidence as does exist on the question all points in one direction. I find it persuasive. First, there are the opinions and reported observations of those who work in the field: voice teachers, speech therapists, and medical practitioners. These sources admittedly differ in acuteness of observation, analytic sagacity, objectivity, and motivation. The ratio of simple assertion (often aesthetically influenced) to documented argument is fairly high. Much of it is subjective in nature—a teacher's studio experience as interpreted by the teacher or traded in party talk with other teachers; presumptive diagnoses from a laryngologist here, an ENT man there; trade talk of stars who drop out of shows: student tales of ruin; and so on. The body of carefully reported literature (in medical journals and technical discourses) is still relatively small. But the unanimity of this opinion and reportage is startling, especially in a field where theory is so hotly contested in almost every other detail. Its thrust is that the belt, along with vocal overuse as a secondary factor, is an abuse of the voice, leading to vocal deterioration and ill health in an unacceptably high proportion of singers who use it. The reported incidence of nodules of the vocal cords among such singers, ascribed to habitual belting, is impressively high, as is the regularity with which easement is said to be brought about through retraining by more traditional methods. There is even a quasi-official expression of collective pedagogical opinion in the matter (see the proceedings of the Symposium on Vocal Registers in Singing, part of the 78th meeting of the Acoustical Society of America at San Diego in 1969, published by Mouton, The Hague, 1973).

All this squares entirely with my own experience and

observation. The only evidence I find to the contrary is wishful assertion by those whose commercial interest is demonstrably involved. Comparisons with the troubles of operatic singers are poorly drawn. Many operatic vocalists experience technical difficulty, sometimes quite severe; but the incidence of actual phonative dysfunction and nodule development among them is nowhere near the general level displayed in the Broadway and club field. Furthermore, the operatic singer's problems are measured against the unchanging standard set by the classical roles he or she must negotiate—the loss of a single full step in compass, or a fairly minor drop in tonal intensity or endurance, is professional death to the operatic artist. For the Broadway or club singer, you just transpose or rearrange.

Besides, contemporary methods of observation and analysis of the workings of the voice have yielded a solid clinical explanation for the perils of overextended chest register. Here it is: Vocal sound is initiated by vibration at the lips of the glottis, for which purpose these lips (the vocal cords, or folds) must remain parallel and equidistant, to quite a close tolerance, as they produce the slower or faster frequencies of vibration that we hear as "lower" or "higher" notes. As the scale is ascended and the frequencies increased (doubling at each octave), it is necessary to easy, economical function that the mass of the vibrating members be progressively lessened, for the obvious reason that a heavy, thick mass vibrates with decreasing efficiency as frequency is radically increased. To accomplish this, and to keep the glottal lips equidistant, a complex system of muscular activity performs the tasks of stretching the lips, of twisting their thinner edges into play rather than the full thicknesses, and progressively dropping segments out of action by damping them. Different types of muscular activity, operating in constantly changing balances of antagonistic tension, account for these changes, and unless transference is made from one type to another, in appropriate ratios at appropriate points in the scale, those changes cannot take place. The technical fault represented by the belt consists in holding on to the sort of muscular action that enlists too heavy a mass for the desired frequency of vibration. This results in a ponderous activity that must be driven with greater energy to produce the frequencies; the increased intensity further feeds the inappropriate action, until at an extreme of frequency and intensity, the muscular action must precipitously give way. This results in the breaks, sudden inequalities of intensity and timbre, and loss of control that all singers seek to avoid.

Among vocal authorities, there is some disagreement with respect to interpretation of evidence as to exactly which types of muscular activity account for which registral characteristics, as to the exact points in the scale where transferences of ratio must take place, and as to precisely which subtle variations of timbral quality represent which balances. But there is no disagreement about the nature of the changes, or the general pitch area of change from the chest-dominant action (well short of the upper belt limit), or the balances represented by such gross categories of timbre as "belt" and "legit." To argue that some singers belt and survive has all the weight of observing that some people smoke three packs a day, live to eighty, and die of causes other than cancer, emphysema, or heart attack. True, and if you want to play those stakes (or if your "taste" inclines

toward terminal disease), the tables are open for the suckers.

Am I then actually saying that the predominant vocal usage among all female nonclassical singers is in and of itself unhealthy, and is there no such animal as a "safe belt"? Yes I am, and no there isn't if, as I believe, the foregoing arguments are valid. But it is true that some variations are less destructive than others—a singer carrying belt to G and then transferring to a fairly developed head register is assuredly better off than one driving it to C and then snapping into a few piping head tones.

Perhaps the only positive aspect of the whole development in female pop usages has been a rediscovery of the lower reaches accessible to some female voices, and almost never written for by classical composers. Many female voices (even some sopranos) can develop listenable singing tone as low as F, and some to E flat or even D, though seldom with any power. If properly developed and balanced, this could result in an octave of chest-dominant tone without seriously upsetting registral balance. A few contraltos may be able to employ chest mixes above the break in such a way as to yield two octaves of good, open-throated sound of fair evenness and vowel clarity. The two octaves, however, will be a bit below the classical range, and music would have to be written accordingly. The only example I can cite is Carol Brice, a classically trained contralto who sang some opera and oratorio in addition to her Broadway work. She is heard on the Victor remake of *Finian's Rainbow* and, better, in *Grass Harp*, where the songs fit her voice like a glove and her performance is most impressive; at the higher intensities, she makes a smooth transition onto the head side as high as A and B flat. But note that Brice's lower range is round and powerful (never the case with belt vocalists, because the chest has been displaced and stretched upward), and that the transition is made gradually.

It is even conceivable that a variety of female tenor, pitched a tone or a minor third above the male, might be developed from an unusually low female voice. However, such a voice would have to be handled technically the same as the male tenor's in the break area, rather than by simply shoving unmodified chest upward. Such a development would have to be an experimental long shot involving thorough training and would bear little tonal similarity to belt. The voice would not have the power of a well-developed male tenor, but might well have a combination of range, flexibility, and tonal properties that could suit some castrato literature and a bit of the late classical and early Romantic tenor repertoire, although modern audiences might find this odd.

Beyond these possibilities, the attempt to employ female voices in chest-dominant usage is of equivalent aesthetic and functional promise to the usages of the male falsettist, for a fairly accomplished example of which you may consult the camp performance of M. O'Haughey in *Chicago*, on Arista 9005, which ironically demonstrates more strength and negotiability in coordinate head voice than that of almost any female Broadway vocalist.

Mr. Osborne concludes his consideration of the Broadway voice next month with observations on the female "legit" and the tenor and baritone, and a detailed prescription for the return to sanity and vocal health.—Ed.

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The New Releases

Who Speaks for Callas?

Posthumous release of unapproved recordings and unauthorized live performances skirts the line between documentation and exploitation.

by David Hamilton



THE ETHICAL ASPECTS of "unpublished" recordings are thorny, to say the least. Collectors do not willingly acknowledge obstacles to the acquisition of every scrap recorded by the object of their passion. Historians of performance can find points of interest in the sonic equivalent of potsherds—faint-sounding, aesthetically repulsive relics that nonetheless cast light on some aspect of music-making in days gone by. Performers naturally wish their recorded legacy to represent them at their best (sometimes, if possible, even better than that), and they also expect financial recompense for their labors. Record companies want to make money. And the general public—as distinct from the aforementioned specialized collectors and historians—is entitled to know that it is getting goods of a certain standard.

As long as records could be manufactured satisfactorily only from original metal parts, the owners of those parts (and the artists, through their contracts) could maintain pretty tight control over the performances in their catalogs; the rare instances of piracy were easily dealt with. But the advent of tape recording and its proliferation at ever lower cost have made every home a potential "recording studio" (and, with miniaturization, every concert hall and theater as well). Unique items can now be duplicated with little loss of quality, either from tape to tape or onto discs.

Short of a police state, there is no realistic way to stop this altogether, even though it indubitably invades the rights of performers and record publishers, competing with their legitimate recordings and thus reducing their



When Callas recorded the title role in Puccini's *Turandot* in Milan in 1957, her producer was Walter Legge of EMI (right)—as he was for practically all her recordings made between 1953 and 1960—and Liù was Legge's wife, Elisabeth Schwarzkopf. Here the three, with Callas' husband, Giovanni Battista Meneghini, relax with coffee—but keep the music before them. (Photo: Zanton.)

incomes. (In the case of recent music, of course, it also invades the rights of composers and music publishers.) A recent UNESCO meeting advocated the imposition of a royalty on recorders and blank tape, the proceeds to be shared among composers, performers, and publishers; though just how this kitty might equitably be divided is beyond my powers to imagine, it would doubtless get some money to some of the right people. In any case, all concerned had better be resigned to the fact that whenever they broadcast they are being recorded. (Sub rosa recordings in the theater or concert hall are something else again; impresarios are certainly well within their rights to maintain that purchase of a ticket does not entitle the concertgoer to take home a recording of the event, though the evidence coming my way suggests that they aren't having much luck enforcing this quite reasonable proviso.)

Somewhere between trading a copy of last Saturday's Met broadcast for your neighbor's copy of one you missed last year and selling discs of such a broadcast on the open market, however, a line has been crossed. I'm not prepared to say just where that line should be drawn—five copies? a hundred?—but when we reach the stage of thousands of discs, packaged in album

boxes to look just like commercial recordings, we're past the level of doing favors for friends, or even of distributing interesting historical material to a limited circle of archives, researchers, or other interested parties. We're in business, exploiting the names and labor of musicians, without asking their permission and without paying them. If we get away with it, the interests of collectors and historians may well have been served, while those of performers (and of record companies, who thought their good money had secured them the exclusive services of the performers) will have been trampled upon.

Nor is the resulting situation entirely fair to the general public, which has long assumed that a recording is some sort of "finished product"—the equivalent of, say, a published novel or poem in the literary realm. Commercial recordings have always implicitly claimed to represent adherence, insofar as is humanly possible, to the performers' best ideals (or at least to their self-images). The aesthetic level of the results may sometimes make us wonder whether those goals are high enough, or properly directed—no matter: the "warranty" is understood, even though it has never actually been printed on any liner, and its existence is a tacit but very

real selling point for every commercial recording.

Similarly, the aura traditionally surrounding the "underground" recording—crudely packaged, equivocally labeled, sold under the counter—carried the obverse connotation: This, clearly, was material *not* approved by the performers. Again, the assumption was none the less real for being in most cases tacit; disregarding the invasion of third-party rights that such a transaction involved, we may certainly agree that all concerned were given the correct signals about the recording's status. Furthermore, the collector who knew how to obtain such things certainly knew—or very quickly learned—that he had better not be too persnickety about such niceties as correct pitch, musically logical side breaks, or even the correct sequence of the music (though I must add that some entrepreneurs in this field were remarkably scrupulous about such matters). The reluctance of most publications—including this one—to appear to endorse such productions by reviewing them meant that the customer had to make his choice among competing editions either by blind luck or by word of mouth.

In recent years, the packaging of underground recordings has become ever more lavish and their distribution more open, though they have never been listed in SCHWANN or advertised publicly. Now a whole stack of them has surfaced in the Turnabout Historical Series, bearing the rubric "Live Opera" and the credit "A Fonit/Cetra Recording." Quite a few of them involve the late Maria Callas, who has—not surprisingly—long been a prime focus of underground activity, and they are packaged to look just like the Cetra studio versions of *Traviata* and *Gioconda* featuring Callas which Vox now carries in the same Turnabout series. The unwary buyer is likely to assume that the new sets, too, are legitimate recordings, issued with the permission of, and with recompense to, the performers.

They aren't. A few years ago, Italy passed a law declaring that all recordings of broadcasts more than twenty years old were in the public domain. Since then, Cetra has brought out more than sixty such recordings, ranging from the 1937 Toscanini Salzburg *Zauberflöte* to the complete 1957 Knappertsbusch Bayreuth *Ring* cycle. No permission from the performers is required, nor any payment to them. This may strike you (as it certainly strikes me) as downright confiscatory. Even granting the ample precedent in many areas for intellectual and artistic property to revert to the public domain after having been reserved over a period of years for the financial benefit of its creators, twenty years is a very short term. A number of the Cetra recordings involve star performers who made commercial recordings of the same music and are thus now in unwilling (and unrewarding) competition with themselves. (When the commercial recordings are fifty years old, they too will fall into the public domain and the situation will at last be equalized.)

Unfair or not, that is basically Italy's problem, and indeed the Cetra albums carry, albeit inconspicuously, the legend "Only for Italy." Our problem is that now, through some contractual hocus-pocus, Italian practice has been exported; the same recordings that were heretofore sold under the counter in America are now miraculously "legitimized" because Turnabout has signed a licensing arrangement with Cetra!

This defies sense and reason, of course. Whether it

defies American law is more problematic, because that law is famously unclear about the status of pre-1972 recordings (and especially broadcasts), nor have the relevant court cases notably clarified the matter. My personal reading of the situation is that our record companies have often preferred to look the other way rather than force a court case on such grounds as unfair competition (copyright laws not being applicable), out of dread fear that an uninformed, possibly unfair judgment against them might be deemed to throw their entire pre-1972 catalog into the public domain. The resulting chaos would be far more disastrous than the loss they now take from a modicum of relatively discreet underground activity. Still, given the names involved in the Cetra-Turnabout series, it wouldn't surprise me if someone took this to court.

I'm no lawyer, and I can't tell you whether the Turnabout issues are "legal." As far as I can see, their *ethical* status is no different from that of underground publications of the same material—perhaps compounded to a degree by the fact that they come on like legitimate recordings and thus might be regarded as deceptively packaged (again, in an ethical rather than a legal sense). Given the usual distribution patterns of Turnabout records (through bookstores and remainder houses as well as record shops), they are likely to reach many more unsophisticated and unsuspecting customers than did their predecessors.

Though no lawyer, I am a record reviewer, and I can tell you one important thing: The Turnabout issues are not necessarily any better-sounding than the private issues—and they are often worse than some of the latter. In most of the present cases, the same original tape is clearly the common ancestor of all versions in circulation, though each producer has had access to a different descendant—some good, some bad to begin with, some presented more or less "as is," some subjected to rehabilitation either clumsy or skilled. The work of the "private" producers has generally escaped comparative evaluations, but since the Turnabouts are offered as "legitimate" recordings, they certainly demand to be judged by that standard.

Some of these recordings have significant musical value. Some preserve important revivals that re-established operas in the modern repertory. Others are of interest primarily as documents of the Callas career. Though space doesn't permit detailed reviews, let me consider them all briefly, in chronological order.

Nabucco (1949): the first complete Callas performance known to have been recorded, and the only time she sang Abigaille. Andrew Porter will be considering this in his review this month of the new Angel recording of the opera; let me note here that the original is quite poor (Turnabout has tacitly substituted a different recording of the Overture), the microphone placement was not advantageous to the singers, and (within the limits of a good deal of wow and flutter) Turnabout has got most of it at the correct pitch.

Vespri (1951): the only Callas performance of this opera that has been preserved. She's in strong form, and Erich Kleiber's conducting is alert and vivid, though ensemble problems persist throughout, probably from lack of sufficient rehearsal. Boris Christoff is at his most Slavic, the others are mediocre. The recording is gritty, sometimes wobbly, and the Turnabout version alter-

nates between correct pitch and a semitone flat. Despite many cuts elsewhere, the ballet music is played complete: the opening chorus of Act V is absent, whether through Kleiber's editing or some technical flaw, I cannot say.

Macbeth (1952): a famous performance, from Callas' only production of the opera. She's in top form, but the rest of the cast is depressing, and Victor de Sabata's conducting of the Sleepwalking Scene is tense and hasty. The Turnabout pitch is correct on Side 1, flat on Side 2, and sharp thereafter. My underground copy (the FWR edition), though lacking the unaccompanied section of the first-act finale, is otherwise vastly superior: brighter and richer in sound, free of a curious thumping noise that besets the Turnabout, and almost free of its hum as well.

Trovatore (1953): the least interesting of the lot. Four major voices are on hand, but only Callas is in distinguished form; Ebe Stignani and Carlo Tagliabue are manifestly over the hill, and Gino Penno's intonation is desperately imprecise. Some parts of this edition are so flat that the generally available degrees of speed adjustment will not bring them up to pitch, and the sound in general is muffled, limited in dynamic range, and overlaid with hiss. There is a better underground edition, but the commercial recording (Angel 5sL 3554), conducted by Herbert von Karajan, is far preferable.

Medea (1953): by contrast, the best-sounding of the Turnabouts, correctly pitched throughout. Callas is in excellent voice (far better than she would be for the 1957 complete recording led by Tullio Serafin), and the others are respectable, while Leonard Bernstein is a distinctly enlivening conductor. (His cuts are often different from Serafin's.)

Sonnambula (1955): the famous Visconti revival in its original casting—the commercial recording, now reissued by Seraphim, dates from performances two years later. Bernstein's precision and verve are wonderful to hear, whereas Antonino Votto tended to the sentimental; without ever pushing the music too hard, Bernstein gives it real shape and expressivity. The Callas voice is marginally firmer in 1955 than in 1957, and Cesare Valletti a more positive partner than Nicola Monti. The sound is topky, infirm of pitch; the Turnabout transfer is mostly on the sharp side.

Lucia (1955): the celebrated "Berlin *Lucia*," certainly the diva's most remarkable performance of the part. Karajan frames her with a very Beethovenian view of the score, a twentieth-century conception of "Romantic style"; one doubts that Donizetti's time could have imagined such a performance, but it undeniably convinces. The singing, too, might be considered off-base stylistically (the men are more interested in punchy accents than in bel canto lines), yet it fits well into the total picture. As for Callas, she is simply riveting, floating above the lambent orchestral sound in the Mad Scene, taking vocal chances and getting away with them. Turnabout has obtained a remarkably good tape, which makes one the more depressed to report that much of it is pitched on the high side (though the Tomb Scene goes in the other direction). The encore of the Sextet, included in the three-disc private editions, has been excised here, diminishing its documentary value.

To this scorecard, I should add that, except in *Medea* and *Lucia*, you should not expect anything like high fidelity sound, and you will encounter much distortion

on high notes, frequent audible prompting of the singers, and occasional track leakage from the original source material. In accordance with the practice of the 1950s, all of the operas are performed with "standard" cuts. Turnabout provides no librettos, merely plot summaries (often very sketchy) and biographies of some of the performers.

To return to my central theme: Whatever the legal position of these recordings may be, neither Turnabout nor Cetra appears to have made any significant effort to give their customers the best possible product—not even the minimal effort of putting things into correct pitch, let alone such further refinements as re-equalization to bring out the best of the material's potential. On that score, they prove less responsible than some of their underground competitors. Not only trading, at no cost to themselves, on the names and reputations of singers, they are peddling serious distortions of those singers' work—viz. Eugenia Ratti, whose pleasantly pingy sound (as Lisa in *Sonnambula*) is transformed by the sharp dubbing into the squealing of a Munchkin. That, for sure, is unethical and exploitative.

That last adjective comes to mind, unfortunately, in connection with another new Callas release involving previously unpublished material, this one from Angel. Back in 1971, when the singer was in New York for her Juilliard master classes, she reviewed the material in the Angel "icebox" (most of it dating from 1961 and 1964). The result was "Maria Callas: By Request" (S 36852, May 1972)—not, perhaps, as distinguished an addition to her discography as we might have hoped, it was at least the singer's own choice; the reputation placed at risk should the recordings be found inferior was her own.

Now somebody has made a further selection from among the recordings that Callas herself evidently rejected once again in 1971. These, too, put the Callas reputation at risk, and do so posthumously, which strikes me as unfair. They also do it anonymously; nowhere on the liner is it stated who chose these particular arias, or who gave permission for their release (one assumes that the singer's contractual right of approval has now devolved on some heirs). Was it a disinterested panel of Callas' musical associates—or rather, perhaps, some who stood to gain financially from the release of a "new" Callas record (a category to which EMI and its employees, however well intentioned, necessarily belong)?

I don't mean to argue that the release of these recordings, their status clearly proclaimed, at some time and in some context, would necessarily be unethical. (Deposit of the tapes in major sound archives around the world, for example, would make them accessible to students and historians.) But I cannot help feeling that their release at this particular time and in this particular way, lacking an unequivocal statement about the second-hand authority for their publication, smacks of exploitation. "Maria Callas: The Legend—The Unreleased Recordings" proclaims the cover, projecting strongly the impression that these recordings are part of the legend: spectacular, hitherto unrevealed evidence of Callas at her legendary best. Quite the contrary; it would not be unfair to suggest that Callas suppressed them in 1971 to keep the legend green.

It's not hard to envisage newcomers to opera who will browse in their record shops, come across this cover, and rush home thinking, "Oh boy, this must be the real

stuff"—only to conclude after listening that operatic singing in general and Maria Callas in particular are some kinds of frauds. As with the Turnabout sets, I find myself reflecting that, as far as the ethics of such matters are concerned, it's not only what you do, but how you do it. At least implicitly, the packaging of this record is misleading; "Maria Callas: The Rejected Recordings" would at least have been honest.

The first thing you hear are the two arias from Verdi's *Il Corsaro*—and the sound of a voice in real trouble, a singer manifestly preoccupied with makeshift expedients needed to negotiate the notes at all. That any sense of the music's shape emerges is a tribute to the Callas instincts and willpower. From the recitative preceding Gulnara's cavatina she surely extracts more tension and profile than did Montserrat Caballé (in the complete recording of the opera, Philips 6700 098)—but these arias, and even the relatively more secure 1964 tracks, are likely to yield their undoubted insights only to knowledgeable and carefully prepared listeners.

The Bellini side is a slightly different story, for in 1955 the voice was in good shape, the technique still fluent. The singing is a shade less vivid than in the aforementioned complete recordings of the opera, and also less exciting, for under Serafin's stern eye Callas abjured many of the elaborate embellishments she and Bernstein had worked out a few months earlier (and which she used again in 1957). Though choral and subsidiary parts are omitted, Serafin's slower tempo for "Ah, non credea mirarti" is a definite gain over Votto's. But such differences are mainly of interest to historians; while these *Sonnambula* arias don't misrepresent the singer's artistry at its best (as I think the Verdi arias do), they don't significantly add to her recorded legacy either. I can't see that there was any pressing need to bring them out at this time, in this manner—except the "need" to make money from them while the general public is still susceptible to the Callas name and image.

Rather more constructively, Angel is continuing its program of restoring earlier Callas recordings to the catalog. As well as the 1957 *Sonnambula* already mentioned, we have the *Manon Lescaut* made later in the same year. The top of her voice was by then in pretty parlous shape, and Giuseppe di Stefano made a somewhat leathery partner; still, the Callas Manon (a part she never sang on-stage) is vivid and touching, while Serafin certainly knows how the piece ought to go. (Of her complete recordings for Angel, only the *Turandot* is now unavailable domestically; no doubt that will be along soon.) The Seraphim sets include substantially the same printed matter as the Angel originals (complete librettos, of course); unfortunately, the photographs have turned muddy in the reprinting.

MARIA CALLAS: The Legend—The Unreleased Recordings. Maria Callas, soprano; various accompaniments. ANGEL S 37557, \$7.98 [recorded 1955, 1964, 1969]. Tape: ●● 4XS 37557, \$7.98.

VERDI: Il Corsaro: Egli non riede ancor . . . Non so le tette immagini; Ne sulla terra . . . Vola talor dal carcere (Paris Opera Orchestra, Nicola Rescigno, cond., February 1969). **Il Trovatore:** Tacea la notte placida . . . Di tale amor. Un Ballo in maschera: Morro, ma prima in grazia (Paris Conservatory Orchestra, Rescigno; April 1964). **BELLINI: La Sonnambula:** Compagne, teneri amici . . . Come per me sereno; Oh, se una volta . . . Ah, non credea mirarti . . . Ah, non giunge (La Scala Orchestra, Tullio Serafin, cond.; June 1955).

R BELLINI: La Sonnambula.

R	Amina	Maria Callas (s)	Elvino	Nicola Monti (t)
B	Lisa	Eugenia Ratti (s)	Notary	Franco Ricciardi (t)
	Teresa	Fiorenza Cossotto (ms)	Rodolfo	Nicola Zaccaria (bs)
			Alessio	Giuseppe Morresi (bs)

La Scala Chorus and Orchestra, Antonino Votto, cond. SERAPHIM IB 6108, \$7.96 (two discs, mono, automatic sequence) [from ANGEL 5SL 3568, recorded March 3–9, 1957].

R PUCCHINI: Manon Lescaut.

R	Manon Lescaut	Maria Callas (s)	Lampighier	Franco Ricciardi (t)
B	Singer	Fiorenza Cossotto (ms)	Lescaut	Giulio Fioravanti (b)
	Des Gneux		Geronte	Franco Calabrese (bs)
		Giuseppe di Stefano (t)	Innkeeper	Carlo Forti (bs)
	Edmondo	Dino Formichini (t)	Sergeant	Giuseppe Morresi (bs)
	Dancing Master	Vito Tatone (t)	Captain	Franco Ventriglia (bs)

La Scala Chorus and Orchestra, Tullio Serafin, cond. SERAPHIM IC 6089, \$11.94 (three discs, mono, automatic sequence) [from ANGEL CL 3564, recorded July 18–27, 1957]. Tape: ●● 4X3G 6089, \$14.94.

B BELLINI: La Sonnambula.

B	Amina	Maria Callas (s)	Elvino	Cesare Valletti (t)
Lisa		Eugenia Ratti (s)	Notary	Giuseppe Nesi (t)
Teresa		Gabriella Carturan (ms)	Rodolfo	Giuseppe Modesti (bs)
			Alessio	Pierluigi Latrucci (bs)

La Scala Chorus and Orchestra, Leonard Bernstein, cond. TURNABOUT THS 65151/3, \$14.94 (three discs, mono, manual sequence) [recorded in performance, March 5, 1955].

B CHERUBINI: Medea (ed. Lachner).

B	Medea	Maria Callas (s)	Neris	Fedora Barbieri (ms)
Glauce		Mana Luisa Nache (s)	Jason	Gino Penno (t)
Madservants			Creon	Giuseppe Modesti (bs)
	Angela Vercelli, Maria Amadini (s)		Captain	Enrico Campi (b)

La Scala Chorus and Orchestra, Leonard Bernstein, cond. TURNABOUT THS 65157/9, \$14.94 (three discs, mono, manual sequence) [recorded in performance, December 10, 1953].

B DONIZETTI: Lucia di Lammermoor.

B	Lucia	Maria Callas (s)	Normanno	Mario Carlin (t)
Alisa		Luisa Villa (s)	Enrico	Rolando Panerai (b)
Edgardo		Giuseppe di Stefano (t)	Raimondo	Nicola Zaccaria (bs)
Arturo		Giuseppe Zampieri (t)		

La Scala Chorus, RIAS Symphony Orchestra (Berlin), Herbert von Karajan, cond. TURNABOUT THS 65144/5, \$9.96 (two discs, mono, manual sequence) [recorded in performance, September 29, 1955].

B VERDI: Nabucco.

B	Abigaille	Maria Callas (s)	Abdallo	Luciano della Pergola (t)
Anna		Silvana Tenti (s)	Nabucco	Dario Caselli (b)
Fenena		Amalia Pini (ms)	Zaccaria	Luciano Neroni (bs)
Ismaele		Gino Sinimberghi (t)	The High Priest	Igino Ricco (bs)

Chorus and Orchestra of the Teatro San Carlo (Naples), Vittorio Gui, cond. TURNABOUT THS 65137/9, \$14.94 (three discs, mono, manual sequence) [recorded in performance, December 20, 1949].

B VERDI: Macbeth.

B	Lady Macbeth	Maria Callas (s)	Banquo	Italo Tajo (bs)
Lady-in-Waiting		Angela Vercelli (s)	Murderer	Maria Tommasini (bs)
Macduff		Gino Penno (t)	Doctor	Dario Caselli (bs)
Malcolm		Luciano della Pergola (t)	Servant	Atti io Barbessi (bs)
Macbeth		Enzo Mascherini (b)	Herald	Ivo Vinco (bs)

La Scala Chorus and Orchestra, Victor de Sabata, cond. TURNABOUT THS 65131/3, \$14.94 (three discs, mono, manual sequence) [recorded in performance, December 7, 1952].

B VERDI: Il Trovatore.

B	Leonora	Maria Callas (s)	Ruiz	Mariano Caruso (t)
Ines		Ebe Ticozzi (ms)	Messenger	Angelo Mercuriali (t)
Azucena		Ebe Stignani (ms)	Count di Luna	Carlo Tagliabue (b)
Mannico		Gino Penno (t)	Ferrando	Giuseppe Modesti (bs)
			An Old Gypsy	Carlo Forti (bs)

La Scala Chorus and Orchestra, Antonino Votto, cond. TURNABOUT THS 65140/1, \$9.96 (two discs, mono, manual sequence) [recorded in performance, February 23, 1953].

B VERDI: I Vespri siciliani.

B	Duchess Elena	Maria Callas (s)	Manfredo	Benno Ristori (t)
Ninetta		Mafalda Masini (ms)	Guido di Monforte	Enzo Mascherini (b)
Arrigo		Giorgio Kokolis-Bardi (t)	Giovanni da Procida	Boris Christoff (bs)
Danieli		Gino Sarri (t)	Lord of Bethune	Bruno Carmassi (bs)
Tebaldo		Aido de Paoli (t)	Count Vaudemont	Mario Frosini (bs)
			Roberto	Lido Pettini (bs)

Chorus and Orchestra of the Maggio Musicale Fiorentino, Erich Kleiber, cond. TURNABOUT THS 65134/6, \$14.94 (three discs, mono, manual sequence) [recorded in performance, May 26, 1951].

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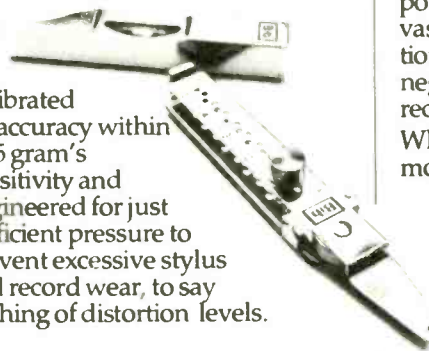
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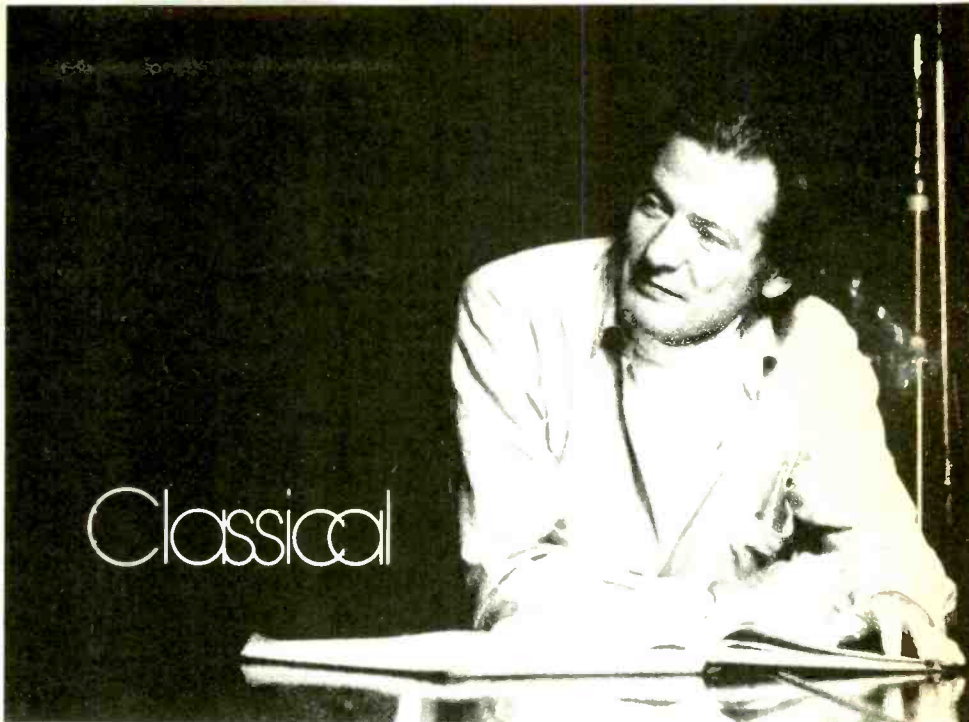
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Neville Marriner—*Boyce* rescued with enthusiasm and verve

BACH: Concerto Reconstructions. Alice Harnoncourt, violin; Jürg Schaefflein, oboe d'amore; Vienna Concentus Musicus, Nikolaus Harnoncourt, cond. TELEFUNKEN 6.42032, \$8.98. Tape: ●● 4.42032, \$8.98.

Concertos for Violin and Strings: in D minor, from S. 1052; in G minor, from S. 1056. Concerto for Oboe d'Amore and Strings, in A, from S. 1055.

As every Bach connoisseur must be aware, it's now generally agreed that all the harpsichord concertos are the composer's own reworkings of scores originally starring a violin or woodwind soloist. It was as far back as 1940, indeed, that Joseph Szigeti and Fritz Stiedry were the first to record a "reverse transcription"—the presumed violin original of S. 1052, which the Harnoncourts perform here using period or replica instruments exclusively. Alice Harnoncourt also is featured in a G minor violin reconstruction of the F minor Harpsichord Concerto, S. 1056 (performed with modern instruments by Itzhak Perlman and Daniel Barenboim on Angel S 37076, June 1975; an alternative flute "original" was recorded by William Bennett and Neville Marriner on Argo ZRG 820, December 1976). The third work in this release is the presumed oboe d'amore original of the A major Harpsichord Concerto, S. 1055 (recorded by Neil Black and Marriner on Argo ZRG 821, December 1976).

Bach specialists who cherish the Harnoncourts' earlier concerto programs will delight in this one. And even nonspecialist listeners are likely to be stimulated as well as startled by the crackling high-voltage energy of these performances and by the vibrant, if sometimes rough, sonorities. Yet today's musicological purists have their own idiosyncrasies, and I question both the authenticity and the interpretative effectiveness of the Harnoncourts' tendency, in slow passages, to aspirate, as it were, individual notes in a phrase or coloratura melisma, following each stressed attack with a quick, slight decrescendo on the same note. This makes for clear-cut articulation, to be

sure, but when overindulged it becomes scarcely less annoying, in its picket-fence jaggedness, than anachronistic use of vibrato or "expressive" rubato.

Fortunately this mannerism is a relatively minor flaw in an otherwise bracingly exhilarating program. If the delectable Argo versions of S. 1055 and S. 1056 are safer general recommendations, the present ones have their unique attractions: not least Jürg Schaefflein's big, almost horn-toned oboe d'amore playing in S. 1055 and Alice Harnoncourt's hard-driving bravura in S. 1052, more exciting than any recorded performance since Szigeti's (which was included in Columbia's six-disc "Art of Joseph Szigeti," M6X 31513, January 1973).

R.D.D.

BOYCE: Symphonies (8). Academy of St. Martin-in-the-Fields, Neville Marriner, cond. [Chris Hazell, prod.] ARGO ZRG 874, \$8.98. Tape: ●● KZRG 874, \$8.98.

Listening today to these now infectiously exuberant, now wistfully lyrical little "symphonies," it's hard to realize that they were allowed to languish in near-oblivion for many years. Unfortunately, Boyce still is better known to eighteenth-century spe-

cialists than to the general public, despite the existence of three quite good previous stereo versions of the symphonies.

None of the earlier recordings matches the vibrant presence of Argo's engineering or the irresistible enthusiasm and nippy verve of Neville Marriner and his Academicians: the oboe and flute soloists are particularly delectable. It can be objected (as Roger Fiske did in Gramophone) that Marriner takes some of the middle movements too slowly (several are in fact marked vivace), as if to foreshadow later true symphonic slow movements, but I find that he makes a persuasive case for his tempo choices, idiosyncratic though they may be.

If you've never heard these works, some of the finest last flowerings of baroque-era theatrical music (for most of it was written for stage productions many years before the first publication in 1760), sample the festive No. 5, or No. 7 with its spiritoso first-movement fugue and galumphing jigg finale.

R.D.D.

BRAHMS: Ein deutsches Requiem, Op. 45. Elisabeth Schwarzkopf, soprano; Hans Hotter, baritone; Vienna Singverein, Vienna Philharmonic Orchestra, Herbert von Karajan, cond. [Walter Legge, prod.] ANGEL (Japan) EAC 30103, \$9.98 (mono) [from COLUMBIA SL 157, recorded 1947] (distributed by Capitol Imports).

In September 1946, when Walter Legge and the EMI recording team came to Vienna for their first postwar recordings in that city, both Wilhelm Furtwängler and Herbert von Karajan were under Allied interdict, prohibited from conducting in public. Legge persuaded the occupation authorities to let Karajan make recordings with the Vienna Philharmonic, which were to establish the Austrian as the major conductor of the new generation: he was thirty-eight at the time.

The Karajan Vienna series continued un-

Explanation of symbols

Classical:

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

Recorded tape:

- Open Reel
- Ⓜ 8-Track Cartridge
- Cassette

til 1950, and the bulk of it has recently been transferred to LP by EMI's dubbing wizard Anthony Griffith, for release by its Japanese affiliate. Despite the high price, some of the usual amenities are missing: Although the labels and the fronts of the jackets are in English, just about everything else is in Japanese (for the choral works, the original German is given, along with a Japanese translation).

The prize of the lot is this warm, propulsive, richly nuanced performance of the Brahms *German Requiem*, a far more involved and involving affair than either of Karajan's subsequent recordings—both of them so devoid of significant events that they put me in sympathy with Bernard Shaw's naughty witticism that this Requiem could only be borne patiently by the corpse. The 1947 recording is quite different, and includes as lovely and unaffected a piece of singing as Elisabeth Schwarzkopf ever gave us, before she became the excessively self-conscious virtuosa of the Fifties. Hans Hotter, too, is in rather good form, imposingly Old-Testament in manner. The new transfer, a shade low in level to accommodate the whole piece on a single disc, is full and solid; a few of the 78 sides grind, but not obtrusively.

Especially if you are not—as I am not—anything like an automatic admirer of Karajan's later work, I commend this Brahms to your attention. In fact, the whole series is rather impressive. On a total of

twelve discs, it encompasses all of the Karajan/VPO series for English Columbia except the two Mozart operas (*Nozze and Zauberflöte*, still available in European pressings), two Josef Strauss waltzes, the *Cavalleria Intermezzo*, Liù's final aria sung by Schwarzkopf, and a few vocal recordings that Karajan conducted anonymously, apparently because he was afraid of being typed as an "accompaniment conductor." (Among the latter, two are scheduled for release soon by English EMI: the Presentation of the Rose from *Rosenkavalier* with Schwarzkopf and Seefried, and a previously unreleased *Salome* finale with Welitsch, one segment of which will be missing, as the matrix was irreparably damaged in transit from Vienna to London.)

To sum up briefly the other records in the series: The major works are Beethoven's Ninth (EAC 30101), Fifth and Eighth (EAC 30102), the Schubert C major (EAC 30104), Tchaikovsky's Sixth (EAC 30105), and Brahms's Second (EAC 30106). Two Mozart discs include Symphonies Nos. 33 and 39 (EAC 30107), the Clarinet Concerto (Leopold Wlach the soloist), *Eine kleine Nachtmusik*, the *Masonic Funeral Music*, and the Adagio and Fugue (EAC 30108). Richard Strauss's *Metamorphosen* is coupled with some Wagner choral excerpts (EAC 30109), two discs are devoted to Strauss waltzes and overtures (EAC 30110/1), and a catchall "Popular Concert" includes Tchaikovsky's *Romeo and Juliet*, the

overtures from the complete Mozart opera recordings, the *Manon Lescaut Intermezzo*, and Schwarzkopf singing "O mio babbino caro."

For those interested in the development of Karajan's style—and, indeed, the history of modern conducting in general—all of these are fascinating documents. His admiration for Toscanini is clear enough, but not in any way slavish; like the Brahms Requiem, the Mozart performances have Toscaninian attributes without being in the least like Toscanini's actual performances of this music. Karajan apparently derived from the older conductor an ideal of textural clarity and rhythmic consistency—but applied it in terms of his own temperament and ideas about the music. The Schubert symphony is especially impressive in its coherence, and the Beethoven works make fascinating comparisons with the three subsequent recordings from three subsequent decades. Even then, Karajan's Johann Strauss was more sleek than idiomatic, and the Wagner choral numbers are curiously dull, though the *Metamorphosen*—the first recording ever of the piece—is fervently played.

Some of these recordings have circulated here before, mostly on Columbia or Entré; the Brahms Second was an early Angel. In the several cases where I've been able to make comparisons, the Griffith transfers are markedly superior in clarity and range (it turns out that he was also the original engineer on some of these sessions), and the Japanese surfaces are spectacularly clean.

The beginning of Karajan's recorded career goes back still further than these records: During the Nazi years, he made over a hundred 78-rpm sides for Deutsche Grammophon, some with the Concertgebouw and the Italian Radio orchestras. The Mozart *Haffner* and Strauss's *Don Juan* were once available on Decca DL 9513 and DL 9529, respectively, and the *Zigeunerbaron* Overture in BASF's Berlin Staatsoper anthology (98-22177-6). Perhaps DG will consider matching EMI's Karajan historical project with one of its own? D.H.

BRAHMS: Symphony No. 2, in D, Op. 73. Chicago Symphony Orchestra, James Levine, cond. [Thomas Z. Shepard, prod.] RCA RED SEAL ARL 1-2864, \$7.98. Tape: ●● ARK 1-2864, \$7.98; ●● ARS 1-2864, \$7.98.

Comparisons:
Toscanini/NBC Sym. in Victrola VIC 6400
Boult/London Phil. Ang. S 37032
Böhm/Vienna Phil. DG 2530 960
Monteux/Vienna Phil. Lon. Treas. STS 15192

Levine's Brahms Second, like the earlier installments in his now-completed cycle, resembles Toscanini's NBC Symphony recording: Textures are crisp and lean; rhythm is tight; tempos avoid extremes (the second movement is an Adagio with the accent on the composer's "non troppo"; the third movement is leisurely); there is no first-movement repeat.

While the Toscanini-Levine way brought surging rhetorical power to the Third Symphony and fresh rigor to the First and Fourth, the Second wants more ardor than it gets here. The cellos need to sing more,

Critics' Choice

The most noteworthy releases reviewed recently

- BACH:** Violin Sonatas and Partitas. Végh. TELEFUNKEN 36.35344 (3), Oct.
BARTÓK: Mikrokosmos. Ránki. TELEFUNKEN 36.35369 (3), Oct.
BARTÓK, STRAVINSKY: Two-Piano Works. Kontarskys. DG 2530 964, Nov.
BOCCHERINI: String Quintets. Quinteto Boccherini. HNH 4048, Oct.
BRAHMS, SCHUMANN: Piano Works. Kubalek. CITADEL CT 6027, Nov.
BRITTEN: Various Works. Baker, Britten, et al. LONDON OS 26527, Nov.
DVOŘÁK: Quartets, Opp. 51, 105. Gabrieli Qt. LONDON TREASURY STS 15399, Nov.
FALLA-HALFFTER: Atlántida. Tarrés, Sardinero, Frühbeck. ANGEL SBLX 3852 (2), Oct.
HAYDN: Il Mondo della luna. Auger, Alva, Dorati. PHILIPS 6769 003 (4), Dec.
HOLST: Choral Works. Groves. ANGEL S 37455, Oct.
LISZT: Piano Sonata. SCHUMANN: Fantasy. De Larrocha. LONDON CS 6989, Oct.
MEYERSON: Symphonies (5). Masur. VANGUARD CARDINAL VCS 10133/6 (4), Oct.
MESSIAEN: Turangalila Symphony. Previn. ANGEL SB 3853 (2), Dec.
MOZART: Violin Sonatas. Shumsky, Balsam. MHS 3475/80 (6), Oct.
MUSSORGSKY: Pictures at an Exhibition; Night. Markevitch. MHS 3650, Oct.
POULENC: Organ Concerto; Concert champêtre. Preston, Previn. ANGEL S 37441, Nov.
PURCELL: Dido and Aeneas. Troyanos, Stilwell, Leppard. RCA ARL 1-3021, Dec.
SHOSTAKOVICH: Quartets Nos. 1, 3. Gabrieli Qt. LONDON TREASURY STS 15396. Quartets Nos. 4, 12. Fitzwilliam Qt. OISEAU-LYRE DSLO 23, Nov.
STRAVINSKY: Pulcinella Suite, et al. Boulez. COLUMBIA M 35105, Nov.
VIVALDI: Choral Works, Vols. 1-2. Negri. PHILIPS 6700 116 (2), Nov.
IDIL BIRET: Piano Recital. FINNADAR SR 125 (direct-to-disc), Dec.
LEONARD PENNARIO: Daydreams (Piano Recital). ANGEL S 37303, Nov.
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.

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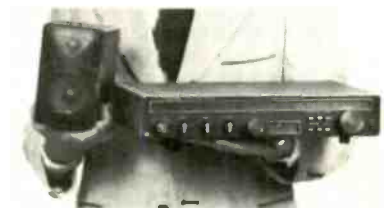
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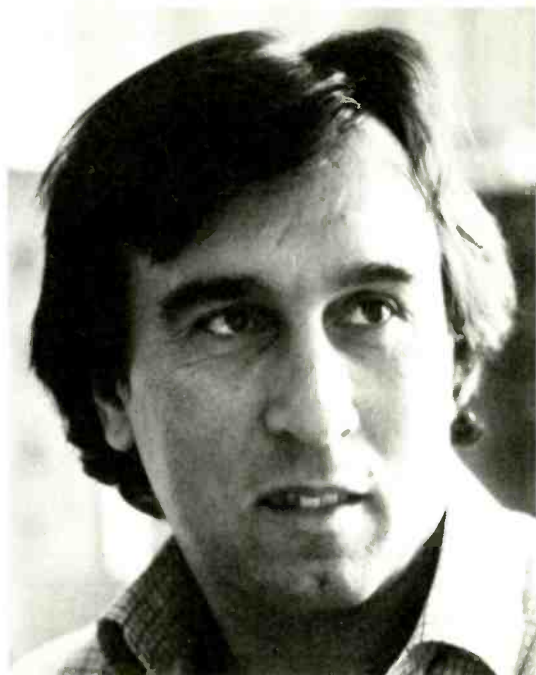
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Abbado's Revelatory Mahler

by Abram Chipman

After some twenty-five years of hearing the Mahler Fourth Symphony in every conceivable interpretive guise I scarcely would have thought it possible, but from the first few bars the music on this recording sounded pristinely fresh and new.

Claudio Abbado lets it all pour forth with the Schubertian simplicity, lyrical warmth, and childlike wonderment of the venerable premiere recording under Bruno Walter (Odyssey 32 16 0026, rechanneled). At the same time flashes of rubato, brilliant color, and dramatic boldness are as striking as in the versions of Willem Mengelberg (Philips, deleted) and James Levine (RCA ARL 1-0895). To top it all off, the impeccability and innocence of Frederica von Stade's singing in the *Wunderhorn*-inspired finale seem of a perfection heretofore eluded on disc.

More critical rehearing and spot comparisons with my favorite earlier recordings only confirmed the initial verdict. Everything that might surprise a listener in Abbado's reading—sudden wispy *ppps* in the violins, a prominent bass clarinet or bassoons in some grotesquely parodistic movement, the roof-raising climax of the slow movement, or even the sequence of no fewer than ten tempo changes in the last pages of the first movement—is right there in the score.

Some more magic tricks: Abbado's timing of 23:25 for the slow movement is likely the longest on records. Yet Mengelberg, who takes some two minutes less, sounds more calculated in his Romanticism. Levine, at about 22 minutes, and George Szell (Columbia MS 6833), at just under 21, strive for infinite stillness and immobility: Abbado lets the music flow and gambol in a dreamlike ecstasy, and it is over too soon. Von Stade's churchly, white-toned purity turns out, on closer examination, to be ripe with sensuously expressive and humorous touches (e.g., the lift and bounce to "*Wir tanzen und springen*"). Just negotiating the notes and the line overextends most of her competitors, but I never particularly noticed that—or the matronly timbre of some of the others—until Von Stade came along. The playing of the Vienna Philharmonic, as captured by DG's technological wizardry, sounds as if it comes straight from the brain of the composer.

MAHLER: Symphony No. 4, in G. Frederica von Stade, mezzo-soprano; Vienna Philharmonic Orchestra, Claudio Abbado, cond. [Rainer Brock, prod.] DEUTSCHE GRAMMOPHON 2530 966, \$8.98. Tape •• 3300 966, \$8.98.

though Levine's rather *détaché* phrasing of the first movement's big lyrical tune (reminiscent of Antal Dorati's Mercury recording) is at least interesting. The horns at the opening aren't as lustrous as they are in some Central European renditions. The finale, as such conductors as Furtwängler, Jochum, and Walter have shown, responds to more brio and excitement. Save for a touch of whine in the violins' upper register, the Chicago Symphony responds in smart and finely honed fashion: the sound is closer to the midauditorium perspective of Levine's First (ARL 1-1326, May 1976) than to the more visceral Third (ARL 1-2097, January 1978) and Fourth (ARL 1-2624, July 1978).

For a brisker, airier Second, I would suggest Sir Adrian Boult's with the London Philharmonic on Angel (with the *Alto Rhapsody*, sung by Janet Baker); for a more searching, longer-breathed approach, I heartily recommend two Vienna Philharmonic recordings—Karl Böhm's on DG (with the *Haydn Variations*) and Pierre Monteux's on London Treasury. If, however, a coolly objective approach appeals to you, Levine's is the clear choice among separately available stereo versions. His cycle as a whole, assuming it appears in boxed form, will strongly challenge my previous choices, the richly expansive Sanderling/Dresden State Orchestra set (Eurodisc 85 782 XHK) and the high-spirited if less virtuosic—but also less expensive—Abra-vanel/Utah Symphony set (Vanguard Cardinal VCS 10117/20).

Final hint: A Levine/Chicago Brahms disc of the *Haydn Variations* and the two overtures would be welcome. A.C.

BRUCKNER: Symphony No. 5, in B flat. Berlin Philharmonic Orchestra, Herbert von Karajan, cond. [Michel Glotz, Cord Garben, Hans Hirsch, and Magdalene Padberg, prod.] DEUTSCHE GRAMMOPHON 2707 101, \$17.96 (two discs, manual sequence). Tape: ♣ 3370 025, \$17.96.

BRUCKNER: Symphony No. 5, in B flat. Leipzig Gewandhaus Orchestra, Kurt Masur, cond. VANGUARD VSD 71239/40, \$15.96 (two discs, manual sequence).

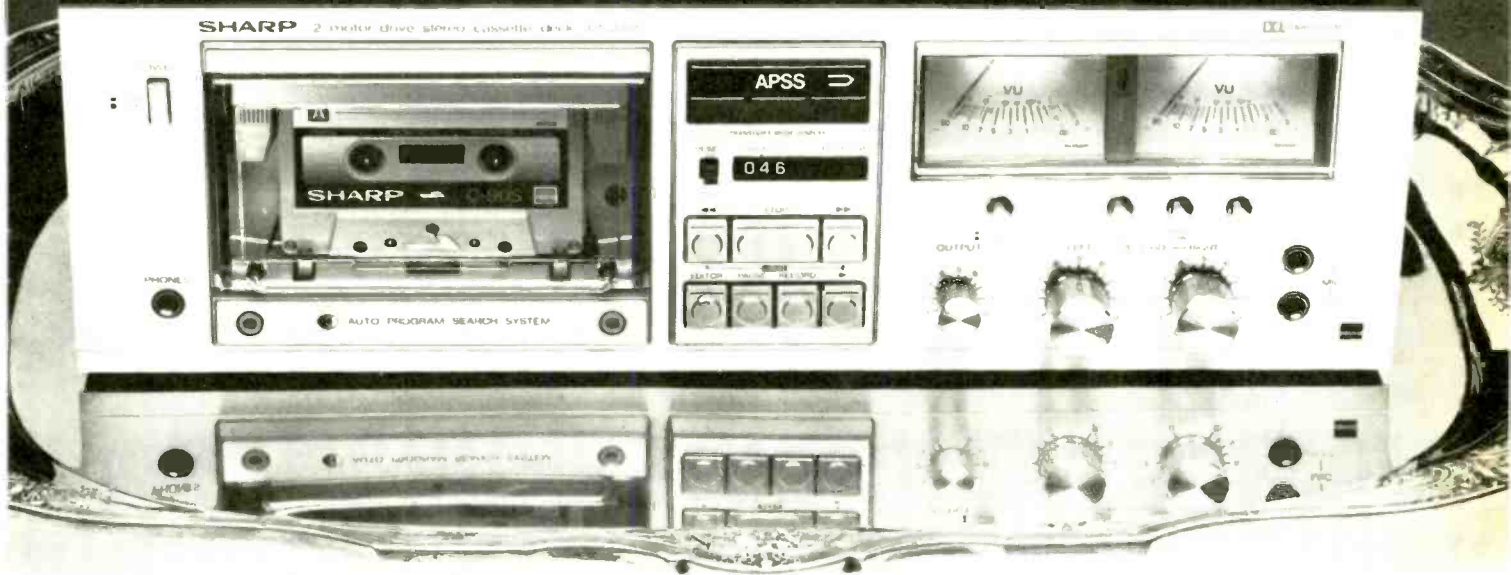
Comparison:
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The compelling virtues of Karajan's Fifth (the one Bruckner symphony in his recent DG series that is a first recording rather than a remake) are its rhetorical power, the brilliance and finesse of the orchestral playing, and the range and solidity of the engineering. Masur's recording is less spectacular instrumentally but boasts a darkly bronzen sonority and self-effacing authority characteristic of the conductor's Bruckner series.

Masur is steadier in pulse: unlike Karajan, he resists the temptation to broaden at such points as the brass fanfares near the symphony's opening and the introduction of the chorale theme in the finale (bar 175). Nor does Masur hurry the pizzicato figures in the first-movement coda. More importantly, he evinces greater security in the four-against-six passages of the slow movement. If Karajan is not above toying with

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tempos for expressive ends, his reading is in general as smartly and dramatically paced as Bernard Haitink's, which in turn is, on the whole, even sturdier in rhythm than Masur's (the notable exception being the latter's monumentally rocklike finale). Masur's more moderate pacing sometimes vitiates indicated contrasts within movements, as in the first movement and the scherzo.

Masur's orchestra is less virtuosic than Haitink's or Karajan's—though the slight relative thinness of string tone does allow much wind doubling to be heard (e.g., flutes and violins near bar 50 of the slow movement). Between the Concertgebouw and the Berlin Philharmonic, I prefer the former's crisper, more pungent playing to the latter's lush, smoother sound, but in matters of dynamic contrast—from whispering *ppps* to shattering *fffs*—the new DG recording easily surpasses all competitors.

Karajan's Fifth now joins Haitink's and the deleted Klemperer/Angel as my top choices, with Masur's a close and idiomatic runnerup. On the horizon, however, are the first release of a mono live performance by Eduard van Beinum and the Concertgebouw (in a Philips set devoted to the conductor) and Eugen Jochum's Dresden/EMI remake. A.C.

CHOPIN: Concerto for Piano and Orchestra, No. 2, in F minor, Op. 21*; *Nouvelles études* (3), Op. posth.; Scherzo No. 2, in B flat minor, Op. 31. Emanuel Ax, piano; Philadelphia Orchestra, Eugene Ormandy,

cond.*. [Jay David Saks, prod.] RCA RED SEAL ARL 1-2868, \$7.98. Tape: ●● ARK 1-2868, \$7.98; ●● ARS 1-2868, \$7.98.

CHOPIN: Concerto for Piano and Orchestra, No. 2, in F minor, Op. 21; *Andante spianato and Grande polonaise brillante*, Op. 22. Bruno Rigutto, piano; Luxemburg Radio Orchestra, Louis de Froment, cond. [Ivan Pastor, prod.] PETERS INTERNATIONAL PLE 045, \$7.98.

Since Chopin composed his F minor Concerto at the age of twenty-one, perhaps it is best served by pianists full of sprint and grace, which may or may not be synonymous with youth. In any event, both Ax and Rigutto decidedly qualify.

Not that their performances are at all similar. Rigutto, for all his technical brilliance and aristocratic glitter, remains essentially decorative and salonlike. Ax suggests wider, more heroic scope. Though he too shapes Chopin's filigree suavely, the delicacy of his cascading pianism is counterbalanced by slower tempos, thunderous fortes, and breadth of phrase; his treatment is freer, less symmetrical.

The orchestral advantage too is all to RCA. Ormandy's forces in truth sound too massive (especially in the double-bass department), but the Philadelphians' elegant sonority contrasts pointedly with the seedy strings and raw brasses of the Luxemburg Radio Orchestra. The accompaniment may be a secondary consideration in Chopin's concertos, but it is important enough to make the edginess of the Peters edition a

distinct annoyance. Both versions give the *tutti* uncut.

The fillers are consistent with the concerto performances. Ax offers introspective readings of the three *Nouvelles études* and a coolly incisive account of the Beethovenian B flat minor Scherzo. Rigutto plays the *Andante spianato* and *Grande polonaise brillante* with good taste and technical aplomb, and here the orchestral part is so minor that the Luxemburgers do little harm.

RCA's larger-than-life sonics seem to me to misrepresent Ax's full, round sonority. The inflated ambience confuses the bass line and imparts a tacky percussiveness uncharacteristic of the pianist's tone as I have heard it in concert. The Peters sound is of the conventional close-up type. Rigutto's instrument also tends to glassiness but has greater definition in the bass. H.G.

DONIZETTI: *La Favorita*—See Rossini: *L'Italiana* in Algeri.

GERSHWIN: Concerto for Piano and Orchestra, in F*; *Rhapsody in Blue**. Pyotr Pechersky* and Alexander Tsvassman*, piano; Moscow Philharmonic Orchestra, Kiril Kondrashin, cond.; U.S.S.R. Symphony Orchestra, Gennady Rozhdestvensky, cond.*. [Alexander Griva* and David Gaklin*, prod.] WESTMINSTER GOLD/MELODIYA WG 8355, \$3.98.

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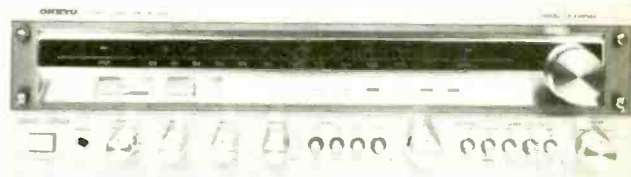
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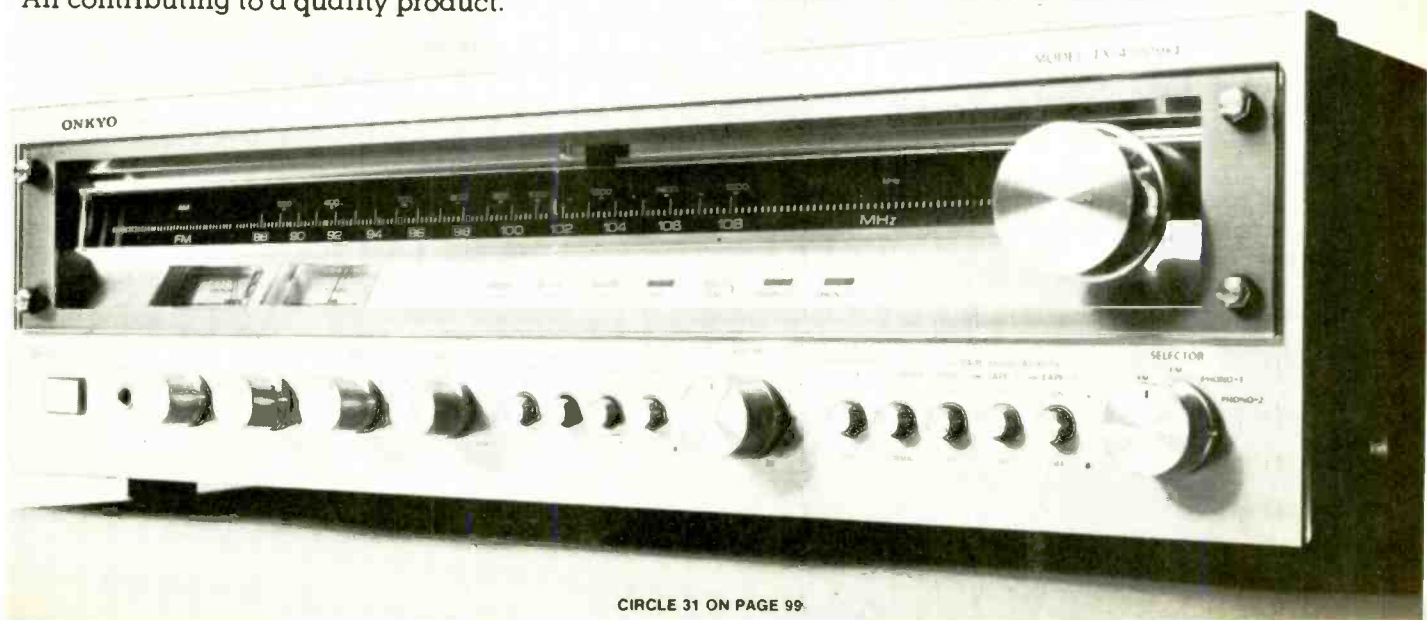
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Gershwin's work even more quintessentially "American" than we do, but their often heavily accented, unidiomatic performances usually strike American listeners as awkwardly self-conscious. So I was surprised to discover how much these Russian performances have going for them, although on reflection that affinity may not be wholly coincidental (it is worth remembering that Gershwin's father was born Morris Gershovitz in what was then St. Petersburg).

The appeal of this *Rhapsody in Blue* is mostly its enthusiasm. Both soloist Alexander Tsvassman and the orchestra are heavy-handed, and the rather thick, over-resonant 1960 recording italicizes the tumultuousness of the reading (and there's a hint of master-tape speed uncertainty in the slight twanginess of sustained piano tones). But there's fine swaggering bravura here, and, miraculously, the fat andante moderate tune isn't as sentimentalized or inflated as it often is by American interpreters.

In the more substantial Concerto in F, Pyotr Pechersky proves a more authoritative yet also more restrained soloist than Tsvassman; he and conductor Kiril Kondrashin give a relatively non-foreign-accented reading, distinguished by its genuine gusto and in the more lyrical passages by surprisingly moving (if scarcely very bluesy) tenderness. The 1967 recording, except for some brittleness in the piano's upper register, is markedly cleaner and more natural-sounding.

Of course, there's no real competition here for fully satisfactory American recordings, but there aren't so many of these as might reasonably be expected. (I still stick with the 1960 Wild/Fiedler versions for RCA.) At its budget price, the present pairing is fascinating both in its own right and for its illumination of the Russian kinship of this by no means wholly "American" music. R.D.D.

KRENEK: *From Three Make Seven*, Op. 171*; *Horizon Circled*, Op. 196*; *Von vorn herein*, Op. 219*. Southwest German Radio Orchestra and ensemble*. Ernst Krenek, cond. [Giveon Cornfield, prod.] ORION 78290, \$7.98

KRENEK: *Four Pieces for Oboe and Piano*, Op. 193.* **WUORINEN:** *Composition for Oboe and Piano*.† **MOSS:** *Unseen Leaves*.‡ James Ostryniec, oboe; Ernst Krenek* and Charles Wuorinen*, piano; Ruth Drucker, soprano*. [Giveon Cornfield, prod.] ORION ORS 78288, \$7.98.

Orion continues its attention to Ernst Krenek, one of the most prolific composers of the twentieth century. (The liner notes inform us that his output, which now numbers well over 200 works, already includes eleven operas, three ballets, incidental music for seven plays, five symphonies, four piano concertos, and eight string quartets!)

Orion's third all-Krenek disc contains three relatively recent orchestral works. The earliest of these, *From Three Make Seven*, was composed in 1960, a time when Krenek was very much interested in total serialism. The record jacket reproduces a diagram of the carefully worked-out structure of the piece; but as is so often the case with this kind of music, what the listener hears seems to have little if any relationship to what is indicated. The work strikes me as rather undifferentiated, both structurally and texturally.

More successful is *Horizon Circled* (1967), which is based—as suggested by the title—on a circular plan that progresses from a state of musical "chaos" (represented by a dense orchestral texture of great contrapuntal complexity) toward a series of brief canons played by solo instruments and then works its way back to its opening condition. Here the precompositional plan produces an analogous, and readily comprehensible, aural result.

But the most convincing of these pieces, to my mind, is the most recent: *Von vorn herein*, composed in the early 1970s. By this point Krenek had evolved a more intuitive approach to composition. He comments: "The piece was not written from beginning to end, but started at various points, and these isolated elements were later brought into the present context, a manner of composing that I have acquired while working in the electronic medium." In other words, he seems to have given his innate musi-

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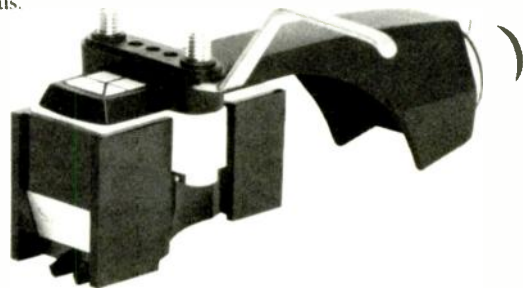
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CIRCLE 52 ON PAGE 99

cality—which is certainly considerable—a freer hand.

Krenek is also represented on Orion's release of three new works for oboe played by James Ostryniec. His *Four Pieces* for oboe and piano are short but attractive, and they are written in the same sort of free, rhapsodic atonal style that to me seems to suit his gifts best. Here Krenek makes use of special playing techniques (multiphonics, double trills, etc.), but these are applied discreetly and are carefully integrated into the overall conception.

Charles Wuorinen's *Composition* for oboe and piano, written in 1965, opens with basically sustained and lyrical music that is then juxtaposed with contrasting segments featuring a faster and more varied surface rhythm. It is not an easy work to grasp as a totality, but it is strong and substantial.

Lawrence Moss's *Unseen Leaves*, scored for oboe, soprano, and tape, is based on two poems by Walt Whitman. It is a most impressive piece, combining virtuosic parts for the instrumentalist and singer with electronic sounds in interesting and subtle ways. The tape part is closely integrated—mainly through pitch rather than timbre—with the live music. It also contains spoken segments, during which parts of the two poems are read with slight electronic distortion. The structure of the work, which is divided into two analogous sections (one for each poem), is clear and yet unpredictable. When performed live, *Unseen Leaves* also incorporates slide projections. The recorded version makes me very curious about what the total effect would be.

The performances of all three oboe pieces are very strong. Ostryniec is a first-rate instrumentalist, and he is ably assisted by Krenek and Wuorinen at the piano in their respective works and by soprano Ruth Drucker in the Moss. Drucker is particularly impressive, handling a very difficult vocal part with ease and authority. Krenek conducts all of the works on the disc devoted to his music. Although it is difficult to judge without scores, here I was less convinced by the playing, which seemed a bit tentative at moments. R.P.M.

LECLAIR: Concertos for Violin and Orchestra: in C, Op. 7, No. 3; in A minor, Op. 7, No. 5; in G minor, Op. 10, No. 6. Concerto Amsterdam, Jaap Schroder, violin and cond. TELEFUNKEN 6 42180, \$8.98. Tape: ●● 4.42180, \$8.98.

These three violin concertos (from a total of twelve) document Leclair's stature as a vital link between the earlier baroque-era concerto composers and those of the early classical era. Jaap Schroder's authoritatively persuasive, powerfully recorded performances with his appropriately not-too-large-sized Concerto Amsterdam—all playing period or replica instruments—testify not only to Leclair's expected mastery of violinistic idioms, but also to his arresting inventiveness and structural strength.

The two works from the Op. 7 set (c. 1737) are still patently in the Vivaldi tradition of fast-movement ritornello/tutti alternations, yet Leclair's thematic motifs already are distinctively his own and his solos or-

namented with unmistakably French rather than Italian stylistic elegance. But it's the sixth of the Op. 10 concertos (c. 1744), with its increased freedom from Vivaldian formulas and its undeniable "classical" symmetries, breadth, and elaborate developments, that imperiously commands both one's respect and admiration.

I realize now how much I may have missed by having overlooked two earlier discs of Leclair violin concertos: the Fernandez/Paillard versions of Op. 7, No. 2, and Op. 10, Nos. 2 and 6, once (1964) for Music Guild, more recently Musical Heritage Society MHS 1880; and the 1972 Jodry/Werner versions of Op. 7, Nos. 3, 4, and 6, on both Arion 90611 and Musical Heritage

MHS 3163. They're likely to be well worth investigation. Schroder's present program certainly is. R.D.D.

MAHLER: Symphony No. 4. For a review, see page 76.

MAHLER: Symphony No. 6, in A minor. Berlin Philharmonic Orchestra, Herbert von Karajan, cond. [Cord Garben, Hans Hirsch, and Magdalene Padberg, prod.] DEUTSCHE GRAMMOPHON 2707 106, \$17.96 (two discs, manual sequence). Tape: ●● 3370 026, \$17.96.

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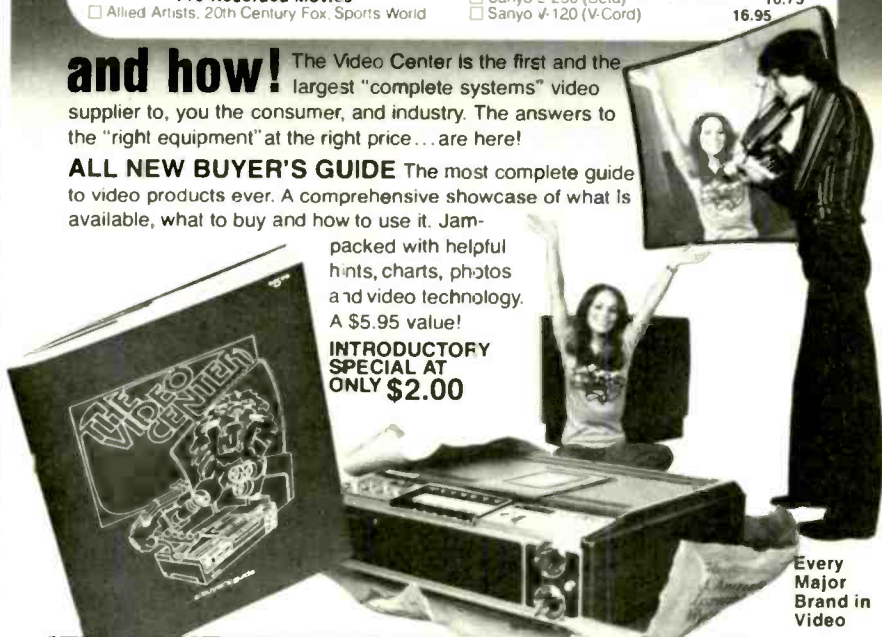
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CIRCLE 50 ON PAGE 99

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Karajan's Mahler Sixth is in many ways the symphony's most impressive recording to date. He scores from the start with a wholly convincing realization of the first-movement marking: *Allegro energico, ma non troppo*. Even the recordings I have most admired slighted some aspect of that direction: Horenstein and Barbirolli (the latter in his deleted Angel recording) took a slower-than-allegro tempo to project the fateful tread of the death march; the feverish Solti and Bernstein go in the opposite direction, ignoring the "ma non troppo"; Szell's deftly sculpted reading is short on energy. Karajan treats the movement with just the right mix of grandeur and nightmarish intensity. I could ask for more stress on the alternating ritards and returns to tempo at the end of the exposition (which Karajan repeats, of course), but in compensation the tenutos between bars 360 and 370 receive more than customary attention.

The scherzo is firm, grim, and—in the Horenstein manner—a little unyielding at the trio sections, where the surging Solti and Bernstein make the greatest possible contrast. Karajan may still be a shade uneasy with Mahler's mincingly bitter-sweet side, which Szell captured with the utmost subtlety, but his yielding beat does make the grotesquely pathetic final pages sound with full effect. Karajan slights neither the rarefied delicacy nor the full-throated passion of the Andante, admittedly a hard movement to spoil.

In the crushing finale, he again steers a fine middle course between the rigorous steadiness and majestic breadth of Horenstein and the more exhausting, theatrical exaggeration of Solti and Bernstein. Even Karajan's liberties—e.g., the cellos' legato phrasing and the slow tempo at the poco *piu mosso*, bars 258-64—make a structural statement; the quiet interlude is distended to maximize suspense before the return of the whirlwind. All that is lacking is the sheer desolation Horenstein brought to the closing brass chorale. In line with the current consensus, Karajan omits the third hammer stroke.

The playing of the Berlin Philharmonic is extraordinary, and DG has done the performance proud. The strings are agile, velvety, and pure. The woodwinds are developing the wry, surrealist sound I have missed in Karajan's earlier Mahler recordings, and the horns are magnificent. I am delighted with the generous observance of glissandos. (So why not the one in the solo violin part at bars 118-19 of the Andante?) No Mahler Sixth in the catalog has more clarity than this one, but without the conspicuous spotlighting of detail in the Solti, Bernstein, and even Horenstein recordings; I find the balances most discreet, the overall perspective robust and persuasive.

Horenstein's Stockholm Philharmonic cannot compare with the Berlin Philharmonic, but his performance retains its special attractions and the Nonesuch price makes it an inexpensive supplement. I would also insist on having a version of the Solti/Bernstein type; between them, Solti has the advantage of Decca/London's pol-

ished and plush Chicago sonority, while Bernstein is the choice for those who are attached to that third hammer stroke. Nor would I readily forgo Szell's beautifully contoured reading, despite its comparatively drab sound, audience noise, and omission of the first-movement repeat. A.C.

MOZART: Sonatas for Piano: in F, K. 280; in B flat, K. 281; in D, K. 311; in C, K. 330. Krystian Zimerman, piano. [Wolfgang Mittlehner and Hanno Rinke, prod.] DEUTSCHE GRAMMOPHON 2531 052, \$8.98. Tape: ●● 3301 052, \$8.98.

Zimerman's exciting debut recording was an all-Chopin program (DG 2530 826, October 1977); for his second record, the young Polish pianist has turned to Chopin's spiritual precursor, Mozart. While these two great composers seem far removed in time and style—one the quintessence of self-denying classicism, the other the embodiment of rapturous early Romanticism—they share, in fact, a similar containment and self-confident perfectionism.

One attribute that made Zimerman's Chopin recital so memorable was his instinct for implicit counterpoint, and it is hardly surprising to find that linear sense and that ear for precise texture equally impressive in Mozart. All four of these sonatas are performed with energy, clarity, and fluency. Ornaments are brilliantly articulated—even verging on spikiness—and runs flow smoothly. The occasional defects are aesthetic rather than technical: one or two overemphatic ritards, a few abrupt-sounding appoggiaturas (the short, before-the-beat one in the *minore* section of K. 330's slow movement, for example, seems out of character for so lyrical and melodic a passage), an arguably brusque tempo for K. 330's *Allegretto* finale.

DG's reproduction has greater warmth and richness than the Chopin disc, made on location at the Warsaw Chopin competition using a cold, raw-sounding instrument. I almost wish it had been the other way around—Mozart would have been less injured by the unalluring lack of resonance—but Zimerman pedals sparingly, seeming determined to avoid the pianistic equivalent of "Philadelphia Orchestra tone." In this he is close to Peter Serkin, another contrapuntist who manages the Mozart/Chopin dichotomy outstandingly well. (Serkin's first Chopin recital disc is forthcoming from RCA.) H.G.

PROKOFIEV: Sonatas for Piano: No. 7, in B flat, Op. 83; No. 9, in C, Op. 103. Tedd Joselson, piano. [Peter Dellheim, prod.] RCA RED SEAL ARL 1-2753, \$7.98. Tape: ●● ARK 1-2753, \$7.98.

The deletion of Joseph Kalichstein's fine Vanguard Cardinal performance of the Ninth Sonata leaves the mono Richter recording (MC 2034) as the only single-disc alternative to RCA's new entry; the Seventh, of course, is far more popular, and the catalog shows it.

Joselson further expounds his lyrical view of Prokofiev familiar from his record-



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ings of the Second Concerto (ARL 1-0751, April 1975), the Second and Eighth Sonatas (ARL 1-1570, December 1976), and the *Visions fugitives* (ARL 1-2158, July 1977). This approach, with its singing tone, poetic colors, and even voicing, proves fully appropriate to the Ninth Sonata's nostalgic, slightly spent rumination. The stormier Seventh, while intermittently well served by similar infusions of nineteenth-century schmaltz, adds up to an expert but incomplete statement. Joselson's playing is not forceful enough to divert attention from the caustic performances of Horowitz (in RCA LM 6014) and Gould (Columbia, deleted) or pointed enough to challenge the linearity of Richter (Turnabout TV 34359).

The piano sound is rich and appealing, but my copy has a lot of crackle. H.G.

B RACHMANINOFF: Works for Piano and Orchestra. Abbey Simon, piano; St. Louis Symphony Orchestra, Leonard Slatkin, cond. [Marc Aubort and Joanna Nickrenz, prod.] Vox QSVBX 5149, \$11.98 (three OS-encoded discs, manual sequence).

Concertos: No. 1, in F sharp minor, Op. 1; No. 2, in C minor, Op. 18; No. 3, in D minor, Op. 30 [from Turnabout QTV34682, 1977]; No. 4, in G minor, Op. 40. Rhapsody on a Theme of Paganini, Op. 43.

As an inexpensive edition of the Rachmaninoff concertos—or even independent of price—the Simon/Slatkin set has its attractions. Not the least of them is the crisp sound; admittedly this is not concert-hall

realism (one would never hear such instrumental detail without the production team's helping hand), but the clarity has the salutary effect of letting fresh air into Rachmaninoff's sometimes musty orchestral room. This music, which so often verges on nebulosity, becomes much firmer of outline, more stimulating intellectually, when instrumental comments are unambiguously stated rather than diffidently mumbled.

Simon is a virtuoso executant, and his assured fingerwork is tastefully phrased, transparently articulated. Sometimes he seems ever so slightly disinvolved, and particularly in the Third Concerto he shifts gears at emotional climaxes instead of meeting the challenge with a sense of risk. But one always has the impression that the music is in knowing hands—Simon has been playing it for many years. (He made an excellent mono recording of the *Paganini Rhapsody* for Epic with the late Willem van Otterloo.)

In the Third Concerto, Simon uses the shorter cadenza in the first movement and makes the second "standard" cut in the third movement (from two bars after No. 52 to No. 54). H.G.

ROSSINI: *L'Italiana in Algeri*.

Elvira	Norma Palacios-Rossi (s)
Zulma	Gigliola Caputi (s)
Isabella	Lucia Valentini Terrani (ms)
Lindoro	Ugo Benelli (t)
Taddeo	Enzo Dara (bs-b)
Mustafa	Sesto Bruscantini (bs-b)
Haly	Alfredo Mariotti (bs)

Volker Rohde, harpsichord; Dresden State Opera Chorus, Dresden State Orchestra, Gary Bertini, cond. ACANTA JB 22 308, \$26.94 (three discs, manual sequence; distributed by German News Co.).

VERDI: *Rigoletto*.

Gilda	Margherita Rinaldi (s)
Countess Ceprano	Maria Corelli (s)
A Page	Silvia Pawlik (s)
Maddalena	Viorica Cortez (ms)
Giovanna	Ilona Papenthin (ms)
Duke of Mantua	Franco Bonisoli (t)
Borsa	Henno Garduhn (t)
Rigoletto	Rolando Panerai (b)
Marullo	Horst Lunow (b)
Count Monterone	Antonin Svorc (b)
Sparafucile	Bengt Rundgren (bs)
Count Ceprano	Peter Olesch (bs)

Dresden State Opera Chorus, Dresden State Orchestra, Francesco Molinari-Pradelli, cond. ACANTA HA 21 474, \$26.94 (three discs, manual sequence; distributed by German News Co.).

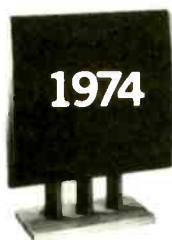
VERDI: *Il Trovatore*.

Leonora	Leontyne Price (s)
Azucena	Elena Obraztsova (ms)
Ines	Maria Venuti (ms)
Manrico	Franco Bonisoli (t)
Ruiz: A Messenger	Horst Nitsche (t)
Count di Luna	Piero Cappuccilli (b)
Ferrando	Ruggero Raimondi (bs)
An Old Gypsy	Martin Egel (bs)

Deutsche Oper Berlin Chorus, Berlin Philharmonic Orchestra, Herbert von Karajan, cond. [Michel Glotz, prod.] ANGEL SCLX 3855, \$24.98 (three SQ-encoded discs, automatic sequence). Tape: 4X3X 3855, \$24.98.

DONIZETTI: *La Favorita*.

Ines	Ileana Cotrubas (s)
Leonora	Fioranza Cossotto (ms)
Fernando	Luciano Pavarotti (t)



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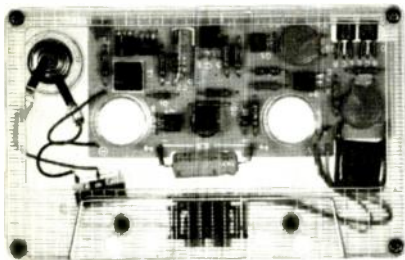
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Two of these four recordings provide reasonable representations of the works; if you assume that they're the major-label productions, guess again.

Neither of the Acanta sets displaces the competition, but both can be listened to with pleasure—and both feature distinguished assumptions of the title role. The surprise (for once a happy one!) is Rolando Panerai's *Rigoletto*, probably the best thing this fine if uneven artist, now fifty-four, has done in his quarter-century recording career. At no point in that career would Panerai have figured on anyone's list of elite vocalists. His virtues, when he's on form, have always been the less spectacular ones: not a dazzling, wide-ranging instrument, but, at its best, a warm, ingratiating one, limited on top; not a histrionic inflector of the Gobbi sort, but an interpreter capable of considerable emotional force in his sensitive, straightforward way.

All these virtues come together in his *Rigoletto*, which captures him in his very best vocal estate. The often problematic vibrato is under firm control; the line is smoothly maintained, precisely colored; the declamation is surprisingly potent (note the "Cortigiani"—after the sensational "La rà, la rà" recitative—and the "Si, vendetta"). Everything is delivered without posturing, in Panerai's gorgeous Tuscan Italian—the clarity and beauty of his verbal articulation make the first duet with Gilda extraordinarily touching. Not the definitive *Rigoletto*, but a lovely piece of work.

So too is Lucia Valentini-Terrani's Isabella in *L'Italiana in Algeri* (her Met debut role some seasons back), although her balance sheet reads somewhat differently: Although somewhat neutral in personality, her vocalism is altogether remarkable, rich and firm from top to bottom. She stands up well to her formidable predecessors—the chest register being fuller and more easily integrated than Teresa Berganza's (in the London recording, OSA 1375), the voice as a whole more fluid than Giulietta Simionato's (in the old EMI recording, available as an Italian import, 3C 163 00981/2).

L'Italiana is better served by its conductor than *Rigoletto*; Gary Bertini keeps things moving nicely, although his work is less vivid than Carlo Maria Giulini's (EMI), less stylish than Silvio Varviso's (London). The London set remains the logical first choice (EMI's heavy cuts remove it from direct competition; the two stereo sets are lightly, and differently, trimmed), since it also has a stronger supporting cast and includes full texts, as against Acanta's synopsis only.

Acanta's Ugo Benelli is an engaging Lindoro, but London's Luigi Alva is less wispy in tone; EMI's Cesare Valletti combines their virtues. A pity that Sesto Bruscantini didn't record Mustafà in the Fifties when he did such basso buffo roles as Don Pasquale and Dulcamara; even now, in his more bari-

tonal and more venerable state (he will be sixty in December), he gives a lively and often vocally pleasing performance, but I prefer London's Fernando Corena. I'd love to hear Enzo Dara as Mustafà rather than Taddeo, which really lies too high for a bass—Panerai (London) was just right. Acanta's Elvira and Zulma are on the weak side.

In addition to Panerai, Acanta's *Rigoletto* has in Margherita Rinaldi an above-average Gilda. Unlike most coloraturas, she actually becomes more secure above E, which enables her to sing a fine "Caro nome." The Duke exposes Franco Bonisolli's technical crudity—often misdiagnosed, it seems to me, as simple insensitivity—less severely than Manrico does (see below), and there are strikingly good moments, like his forceful, insinuating attempted seduction of Countess Sparano. Bengt Rundgren is a first-rate Sparafucile (complete with foreign accent, even if it is not quite *borgognone*), Viorica Cortez a satisfactory Maddalena, Antonin Svorc a dreadful Monterone.

The balance of the cast is okay, as are the Dresden chorus and orchestra under the uninspiring Francesco Molinari-Pradelli, who in his third *Rigoletto* recording still declines to give the score uncut. In fact, he has backslid a bit, re-introducing the "Addio, speranza sola sarai per me" cut at the end of the Gilda/Duke duet. Otherwise the text follows his Angel recording, with two small "standard" excisions in the first Gilda/*Rigoletto* duet (the seven repetitive bars before "Il nome vostro ditemi" and, infuriatingly, the six lovely and nonrepetitive bars near the end) but not the frequent major cut in the "Veglia, o donna" section, which Molinari-Pradelli made in his earlier Columbia recording. As in the Angel recording, one stanza of "Possente amor" is included—rather well sung by Bonisolli.

Molinari-Pradelli surely deserves credit for getting plausibly Italianate, if hardly idiomatic, work from the Dresden forces: Herbert von Karajan doesn't seem even to have made the effort in his Berlin *Trovatore*. This recording demands to be heard by anyone who cares about either the opera itself or the genre: If you want to understand, for example, the emotional logic of the standard double-aria form, listen to the astonishing rhythmic propulsion Karajan generates in all the cabalettas—and at rather slow tempos; the new performance is in general slower than his La Scala mono recording with Maria Callas (Angel 58L 3554), but temperamentally they are surprisingly close. Still, for all Karajan's grasp of the score's sense of movement and balance, the actual sound of the orchestra (and chorus) is so wildly wrong (as in his hilarious set of Verdi overtures and preludes, DG 2707 090) that I am unable to listen with any real pleasure.

There's little to please in the singing. Leontyne Price's new *Leonora* is more specific interpretively than her RCA recordings, but the voice is no longer consistently up to the music's uncompromising demands; below the break in particular there is now nothing but heavy breathing—stretched, at Karajan's tempos, to painful limits. Elena Obraztsova reverses today's usual Azucena pattern: She has power

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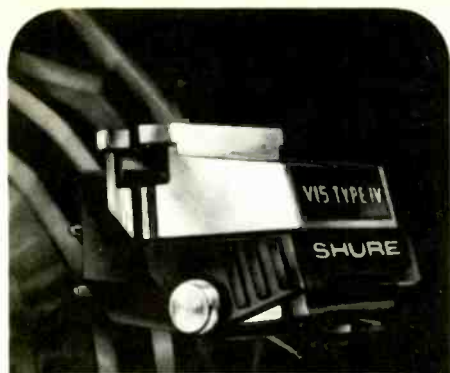
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apenty below the break hut goes wild on top. (The "Stride la vampa" and "Condotta ell'era" on her recent Angel recital disc, S 37501, are far better controlled.) Bonisolli's inability to rise reliably above the break makes his *Manrico* an in-and-out affair, which is still more than Piero Cappuccilli can manage—his *Di Luna*, muddy in texture and gray in color, is strictly out. Ruggero Raimondi's high-lying bass ought to suit Ferrando well, but he never gets beyond note-rendering. The recording is complete, but I cannot recommend it over the solid uncut RCA set with Price, Cossotto, Domingo, Milnes, and Gaiotti, conducted by Mehta (LSC 6194).

Karajan's *Trovatore* at least has Karajan; London's *Favorita* has nothing. Fiorenza Cossotto sings well but makes virtually no effect, at least in part because the voice lacks strength below the break. Gabriel Bacquier's shrewdness gets him through Alfonso (which does not lie high as written) but without any suggestion of the vocal splendor required for one of the centerpieces of the bel canto baritone repertory. Luciano Pavarotti is locked into a gummy croon; Nicolai Chiaurov is in the sad form of recent years, which means an insufficient top and bottom for Baldassare; Ileana Cotrubas sings the small but difficult role of Ines awfully. Richard Bonyngé's conducting is an undifferentiated blur, and so is the recorded sound.

We do hear music—notably the tenor cabaletta that ends Act I—omitted from previous recordings, but the whole enterprise adds up to a misrepresentation of the opera. I see no point in discussing its complex textual problems; for that, readers are directed to Andrew Porter's *New Yorker* review of last season's Met production. For this recording, some unspecified hand has considerably modified the standard Jannetti translation of the original French libretto, presumably to bring the Italian text into closer conformity with Donizetti's original musical line. But the plot remains garbled, and the chaos is compounded by London's booklet, which gives a plot synopsis of the original version—"to save confusion"!

Favorita is a remarkable opera in its own right, and it must have made an enormous impression on Verdi—as reflected particularly in his four "Spanish" operas, above all the first and last of them, *Ernani* and *Don Carlos*. (The structural parallels between *Favorita* and *Don Carlos* are eerie.) Even Boito must have had the majestic brass chorale at the beginning of Act IV in his ears when he wrote the prologue to *Mefistofele*. The recording that contains the strongest hints (though hints they remain) of *Favorita*'s stature is the old *Cetra* with Fedora Barbieri, conducted by Angelo Questa. K.F.

B **SHCHEDRIN:** Concertos for Piano and Orchestra: No. 1; No. 3. Rodion Shchedrin, piano; U.S.S.R. Symphony Orchestra, Yevgeny Svetlanov, cond. [Igor Vepriyev, prod.] WESTMINSTER GOLD WG 8359, \$3.98.

B **SHCHEDRIN:** Symphony No. 2. Moscow Radio Symphony Orchestra,

Gennady Rozhdestvensky, cond. [David Gakin, prod.] WESTMINSTER GOLD WG 8357, \$3.98.

The immensely talented young Rodion Shchedrin (b. 1932) wrote his exuberantly virtuosic First Piano Concerto in 1954 for his graduation from the Moscow Conservatory and went quickly on from there to compose prolifically. There are many chamber and piano works, a First Symphony (1958), and a flood of theatrical works, some of which—particularly the strings-and-percussion ballet metamorphosis of *Carmen* themes—won almost immediate international renown. But evidently that wasn't enough. Yearning to join the musical avant-garde elite, Shchedrin labored long and hard over such credentials as the pretentiously big and demanding Second Symphony (1962-65) and the no less tumultuous Third Piano Concerto (1975). Despite their ambitious "progressiveness," both of these works were approved for recording in Russia, and they well may represent just how far (or short) into modernity the Soviet Musical Establishment permits its composers to go nowadays.

Actually, Shchedrin—like some other Russians in other fields—misses the bus by a good many years: His modernity is little more than that of the Twenties in the West. The jacket notes stress his discovery of the "methods of aleatorics," but as best as I can tell he makes only passing, minor use of this technique. And his claimed "amalgamation of aleatory, dodecacaphony, and polytonality" strikes me as unmistakably old-fashioned bad-boy, wrong-note but essentially tonal *jeux d'esprit*. No less vieux *jeux* are the cliché endings of both the concerto and the symphony with the same motifs that began each work. The strongest influences evident are Liszt at his most Me-phistophelian and Sibelius keening over dark, passionate doings in the thickest Finnish forests, here translated into vast, storm-swept Siberian steppes. Even the seeming architectural novelties—the complex linking of extended variations in the Third Concerto, the intricate mosaic-structuring of twenty-five "preludes" in the Second Symphony—must be more apparent to the eyes of a score reader than to the ears of a listener.

To give Shchedrin his due, he is a prodigious inventor of musical ideas and sound effects (especially percussion). And if his often sheerly frantic fury commands wincing attention rather than willing admiration, it inspires his conductors and players to superhuman efforts (of a piece with his own uninhibitedly bravura piano playing), all captured in ultrapowerful and ultravid, if hard- and sharp-toned Melodiya recordings. R.D.D.

SHOSTAKOVICH: Symphonies: No. 4, in C minor, Op. 43; No. 5, in D minor, Op. 47. Chicago Symphony Orchestra, André Previn, cond. [Christopher Bishop, prod.] ANGEL S 37284 (No. 4) and S 37285 (No. 5), \$7.98 each SQ-encoded disc. Tape (No. 5 only): ●● 4XS 37285, \$7.98.

Comparisons—No. 4:
 Ormandy/Philadelphia Orch. Col MS 6459
 Kondrashin/Moscow Phil Mel /Ang. SR 40177
 Comparisons—No. 5:
 Previn/London Sym. RCA LSC 2866
 M. Shostakovich/U.S.S.R. Sym. Mel./Ang. SR 40163

In the Fourth Symphony, completed in 1936, Shostakovich made his first real attempt since the First Symphony (1926) to write a "normal" symphony—the single-movement Second and Third could both easily be designated by some other title—yet even it might better be called a "concerto for orchestra," so brilliantly are its huge orchestra's facets highlighted.

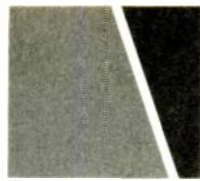
Shostakovich retained that big orchestral sound in the Fifth Symphony (although the actual forces are nowhere near as extensive; the brass disappears altogether in the third movement) but returned to the formal tightness of the First. Perhaps even more important, it was with the Fifth that the composer, no doubt discouraged by obstacles his theatrical works had encountered, transferred to the symphony the dramatic sense that pervades his 1934 opera *Lady Macbeth of Mzensk*. Despite the symphony's heroic finale, the work as a whole, like *Lady Macbeth*, stresses tragedy over triumph and, in the second movement, satire over good will.

André Previn's is only the third recording of the Fourth since the composer finally released the work late in 1961. Although the symphony's first two movements have an acerbic brilliance rarely found in quite the same form in Shostakovich's later works, and although the sepulchral closing—celesta over sustained strings—has a devastating impact after all the preceding pyrotechnics, the work has never caught on. This may be because of its length (over an hour), or perhaps because audiences find it too abrasive (while critics wish it were more so).

Previn's interpretation, which brings the work's jolting clashes into strong relief, is not apt to win more fans. Pleased as I was to hear with clarity exactly how Shostakovich sets up his shocks in the contrapuntal and instrumental textures, one's reaction should go much deeper. The dramatic effectiveness of Shostakovich's music depends more often than not on a sense of flow. Each musical figure must get out of the way in time to make room for the others, and Previn frequently does not allow this to happen, especially in the key first movement. To me, the Ormandy recording represents a satisfying compromise between Previn's performance and Kondrashin's virtuosic one, which flows too much. Sonically, the new Angel disc does not measure up to either of its predecessors.

Previn's remake of the Fifth seems to me less satisfactory in both interpretation and sound (at least in the Angel edition) than his earlier recording, with the London Symphony for RCA. Indeed the latter impresses me on rehearing as very nearly the equal of the recording by the composer's son, Maxim. Previn's better-balanced, livelier finale does the music more justice than Shostakovich's; only the latter's added incisiveness in the first movement leads me to rank it first above Previn's.

The new Fifth differs in subtle but important ways from Previn's RCA version.

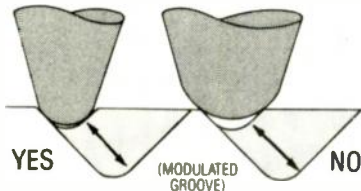


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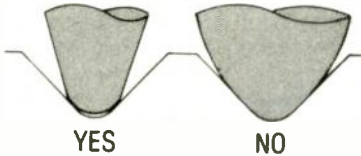
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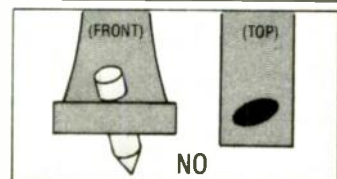
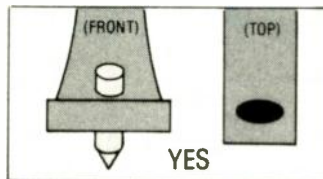


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CIRCLE 40 ON PAGE 99

Where the latter is notable for its sharp attacks and crisp, no-nonsense phrasing, the Angel sounds slightly flabby—note the matter-of-fact opening bars. In addition, entrances often (especially in the first movement) seem just momentarily early, as if the Chicago Symphony were champing at the bit. The violas occasionally indulge in some wobbly vibrato, while the solo violin neglects some important glissandos in the second movement, in which Shostakovich came perhaps as close as he ever did to sounding like Mahler. Previn also eschews most of the rubatos used to good effect in the earlier recording.

Questions of interpretation aside, I find

the RCA version, with its bright highs and rich bass, sonically superior to the more homogeneous Angel, my copy of which also has considerable surface noise and roar.

R.S.B.

STRAUSS, J. II (arr. Dorati): Graduation Ball. Vienna Philharmonic Orchestra, Antal Dorati, cond. [James Mallinson, prod.] LONDON CS 7086, \$7.98. Tape: ● CS5 7086, \$7.95.

Comparisons:
Dorati/Minneapolis Sym.
Boskovsky/Vienna Phil.

Mer. SRI 75014
Lon. Treas. STS 15070

Graduation Ball is one of a small group of "metamorphosed" (arranged and synthe-

sized by other than the composers) ballet scores that irresistibly enchant novice and connoisseur listeners alike. It's also one that, despite enormous popularity both on the stage and in earlier recordings, hasn't been kept as up to date on records as it should be. (We've had no recent versions at all of the Boccherini-Françaix *Scuola di ballo*, Scarlatti-Tommasini *Good-Humored Ladies*, and Handel-Beecham *Love in Bath*.)

Even Dorati's own Minneapolis recording, brought back a few years ago in the Mercury "Golden Import" series, not only dates back to 1957, but is brutally cut. Nor is the well-liked Boskovsky/London version, now some seventeen years old, absolutely complete: Like all recordings before the new one, it omits No. 4 of the *Divertimentos*, the bubbling "Virtuoso Polka" that begins Side 2 of the present disc. Yet completeness and up-to-date audio technology aren't the most magnetic attractions here. Dorati and the Vienna Philharmonic are in fine form, losing not a drop or bubble of this effervescent tonal champagne.

Dorati's jacket notes are mainly concerned with the "story" of the staged ballet, but he does correct an error made by earlier annotators, who claimed that the musical materials came from unpublished Strauss scores. Now the sources are described as little-known (but published) scores obtained "from a Viennese antiquary." Dorati also explains the slight textual differences in various recorded versions by noting that the original manuscript, lost for a time, was rewritten before it turned up again. The present performance is of a "combination of the existing versions, going back to the original orchestration of the *Grand Galop*," etc.

R.D.D.

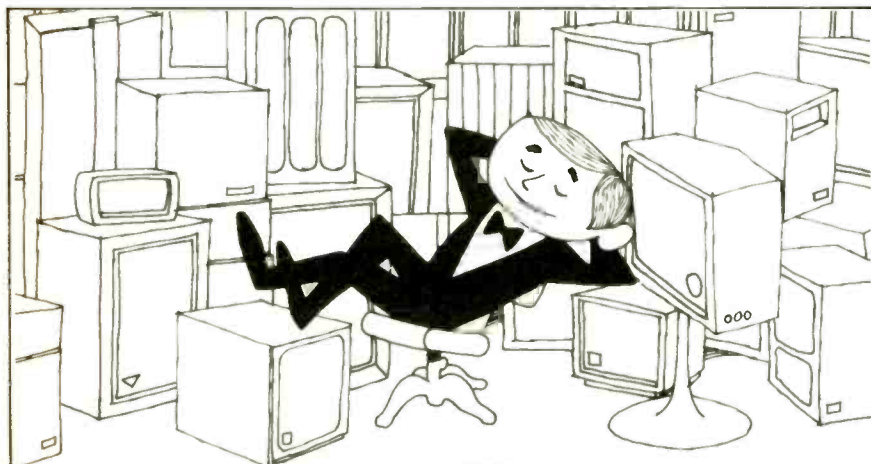
STRAVINSKY: Oedipus Rex.

Narrator: Alec McCowen (spkr)
Jocasta: Kerstin Meyer (ms)
Oedipus: Peter Pears (t)
The Shepherd: Ryland Davies (l)
Creon: Donald McIntyre (b)
The Messenger: Benjamin Luxon (b)
Tiresias: Stafford Dean (bs)

John Alldis Choir, London Philharmonic Orchestra, Georg Solti, cond. [James Mallinson, prod.] LONDON OSA 1168, \$7.98. Tape: ● OSA5 1168, \$7.95.

Comparisons:
Bernstein/Boston Sym. Col. M 33999
Stravinsky/Cologne Radio Odys. Y 33789
Stravinsky/Washington Opera Col. M 31129

Proficient though Solti's marshaling of his excellent choral and orchestral forces may be, this recording yields up something less than the full impact of Stravinsky's monumental score. Both playing and singing are all too often bland, sometimes—in dotted rhythms, for example—even a shade slack. The major exception is Peter Pears, still an Oedipus of great imagination and intensity—but also of much diminished vocal powers by comparison with his work of twenty-five years earlier, on Stravinsky's Cologne recording. Then the voice could ring out to represent "Clarissimus Oedipus"; now we sense that, however artful, this is an elderly Oedipus, and even Kerstin Meyer's perhaps maternal tremolo is insufficient to right the dramatic balance.



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Otherwise among Solti's soloists. I admire Donald McIntyre's firm Creon; Stafford Dean's Tiresias is on the woolly side, and the others are creditable. Alec McCowen's narration is straightforward and vigorous, avoiding the supercilious tone adopted by Michael Wager for Bernstein's recording.

That recording, though less idiomatic than either of Stravinsky's (and unevenly sung to boot), is certainly more committed than Solti's. Still, the composer's versions have the most flavor and impact: I would go first for the mono Odyssey, with Pears at his greatest, Martha Mödl a disturbingly ripe Jocasta, and Heinz Rehfuss the solidest of Creons: Cocteau himself recites his narration, with great relish, and the sound is still remarkably fine. Unlike all the full-priced versions, Odyssey offers no text or translation. D.H.

TELEMANN: Works for Oboe. Heinz Holliger, oboe; Christiane Jaccottet, harpsichord; Nicole Hostettler, spinet; Manfred Sax, bassoon; Philippe Mermoud, cello. PHILIPS 9500 441, \$8.98.

Partita for Oboe and Continuo, in G minor. Solos (Sonatas) for Oboe and Continuo: in E minor, in G minor. Sonata for Oboe, Harpsichord, and Continuo, in E flat.

B **TELEMANN:** Works for Winds. Samuel Baron, flute; Ronald Roseman, oboe; Arthur Weisberg, bassoon; Timothy Eddy, cello; Edward Brewer, harpsichord. [Marc Aubort and Joanna Nickrenz, prod.] NONESUCH H 71352, \$4.96.

Sonatas: for Oboe, Harpsichord, and Continuo, in E flat; for Bassoon and Continuo, in F minor; for Flute and Continuo, in C minor. Quartet for Bassoon, Flute, Oboe, and Continuo, in D minor.

Here are a couple of treasure troves to warm the heart-cockles of all Telemanniacs and oboists. They're also persuasive testimony both to Georg Philipp Telemann's inexhaustible creative inventiveness as a composer and to his delectable geniality and humor as a man. Listening to the extraordinary variety of attractions here, one has no difficulty in understanding the high musical and personal esteem in which Telemann was held by his contemporaries—including Bach and Handel.

In general the Philips performances are in the nature of concert-hall presentations dominated, both tonally and in personality projection, by the incomparable Heinz Holliger. And they are the more closely miked in vivid-presence recording. The Nonesuch program (like earlier ones featuring Ronald Roseman, one of the finest American oboists and program-makers) is a truer chamber music presentation, more equably balanced, less extraverted, and less closely yet brightly recorded. Only one work—the remarkable E flat Trio Sonata (*Esercizii musici* No. 12)—is common to the two programs, and the treatments are so distinctively individual and yet equally admirable that only a foolhardy critic would proclaim one "better." (Perhaps there should be special praise for the ingenious use of a spinet in the Philips continuo part.)

The rest of each recording is no less praiseworthy. Philips provides more oboe-starring vehicles: an unusually constructed partita from the *Kleine Kammermusik* col-

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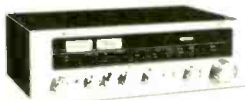
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lection: one of the *Esercizii musicali* "solo" sonatas; and the G minor Sonata from the third production of the *Musique de table*. Nonesuch explores a wider range of woodwind vehicles: a jaunty bassoon sonata from *Der getreue Musikmeister*; No. 8 of the "methodical" flute sonatas (the one with the charming *Ondeggiando* movement), and, perhaps most substantial and rewarding, the arresting quartet from the second production of the *Musique de table*, in which the bassoon is *primus inter pares*.

In this or any month there are few releases that, heard first as a reviewer's duty, demand as insistently immediate and innumerable replays simply for personal pleasure. R.D.D.

THOMAS: Mignon.

Philine
Mignon
Frederic
Wilhelm Meister
Laerte
Jarno
Lothario
Antonio

Ruth Welting (s)
Marilyn Horne (ms)
Frederica von Stade (ms)
Alain Vanzo (t)
André Balleudou (t)
Claude Méloni (b+)
Nicola Zaccaria (bs+)
Paul Hudson (bs)

Ambrosian Opera Chorus, Philharmonia Orchestra, Antonio de Almeida, cond. [Paul Myers, prod.] COLUMBIA M4 34590, \$31.98 (four discs, automatic sequence).

Ambroise Thomas (1811-96) was a respected but hardly famous French composer and teacher until, in 1866, he hit the jackpot with *Mignon*. He followed its success two years later with another hit, *Hamlet*—recently revived by the San Diego Opera for Sherrill Milnes—became director of the Conservatoire in succession to Auber, and lived out his long life largely on the reputation (and performance income) from these two works.

Mignon, once a Metropolitan Opera staple, is a melodic number opera at the core of the French nineteenth-century operatic style. The lilting music strikes me as more balletic than operatic (it is curious that the ballets Thomas wrote are forgotten) in that its soft-contoured melodies are shaped with a plasticity and elegance of phrasing less robust than the lyricism of Gounod or Bizet. This attention to expression through phrase and dynamics would later, of course, be a feature of Massenet's style, although here it is more classically restrained. Thomas the pedagogue is always the musical professional, but his best moments in the score lie in the justly remembered solos, which have a lyrical spontaneity and a characterizational felicity both evocative and memorable.

The libretto, which interestingly enough had in some form been offered a few years earlier to Meyerbeer, is based on Goethe's *Wilhelm Meister*, but as fashioned by Barbier and Carré the tale becomes a series of excuses for "numbers." Certainly the plot—the half-crazed, wandering minstrel; the frail, narcoleptic waif; the hard-bitten actress; the handsome young student—is the stuff of operatic parody, particularly when the old minstrel turns out to be the waif's father.

Mignon exists in several versions. It was originally composed for the *Opéra-Comique*, with spoken dialogue and an elabo-

rate final act (built on a theme used as the coda to the overture). Thomas recomposed the ending into a simpler finale, dropping the tune. For the London production of 1870 he made further changes, which included adding a very empty showpiece aria for the actress Philine and, after reworking the buffo tenor role into a more sympathetic trouser role, using the aria "*Me voici dans son boudoir*" from the second-act entr'acte. For German audiences, he made a short, unhappy ending in keeping with Goethe.

The present recording is of the "standard" score, with some elaborations and recitatives replacing spoken dialogue (a pity, since Thomas made extensive use of the very dramatic convention of *mélodrame*—spoken words over music). Carried as an appendix on the eighth side are the second Philine aria and the whole of the discarded first finale.

The performance is a generally good account, its major fault being the excessively reverberant sound. (The recording was made in All Saints' Church, Tooting.) Little of Thomas's felicitous orchestration can be heard, and the chorus is not defined sharply enough (indeed, the off-stage barcarolle in Act III sounds as if it came from Venice). The miking of the singers is such that their voices often cover the accompaniment. Conductor Antonio de Almeida obtains a good measure of phrasing and elegance, but again, perhaps because of the recording, the music wants greater crispness of attack (particularly from the chorus), more clarity in the ensembles.

Célestine Galli-Marié (later to be the first Carmen) was twenty-six when she sang the title role in the premiere of *Mignon*, and Marilyn Horne is not. She tries to make her voice sound as youthful as possible and invests the role with her usual éclat (now and then taking the soprano variants indicated in the score; the role is intended to be sung by either voice). Yet her voice is simply too large and lacks the freshness and naiveté it should have, particularly in the slow tempo chosen for "*Connais-tu le pays?*," which suggests the wisdom of maturity rather than the wonder of innocence.

Alain Vanzo has long been an underrated French tenor, but his voice is now past its prime, and his many years of performing heavier tenor roles have robbed the voice of the refined yet ardent lyricism it should have for the role of Wilhelm. His general inability to sing much below forte tells against him, and he mistakenly sees "*Adieu, Mignon, courage*" as a sobby, sentimental ballad instead of the tenderly regretful moment it is. Nonetheless, the strengths of his French pronunciation and his still lovely voice are major assets.

Ruth Welting negotiates Philine's music with bravura, if not ease, sounding hard and brittle; she too hugs the fortes at the expense of any other dynamic. Frederica von Stade is excellent in the small role of Frédéric, and Nicola Zaccaria is a rather gruff, spread-toned Lothario. P.J.S.

VERDI: Nabucco.

Abigailie
Anna
Fenena
Ismaele

Renata Scotto (s)
Anne Edwards (s)
Elena Obraztsova (ms)
Veriano Luchetti (t)

Abdallo
Nabucco
Zaccara
The High Priest

Kenneth Collins (t)
Matteo Manuguerra (b)
Nicolai Ghiurov (bs)
Robert Lloyd (bs)

Ambrosian Opera Chorus, Philharmonia Orchestra, Riccardo Muti, cond. [John Mordler, prod.] ANGEL SCLX 3850, \$24.98 (three SQ-encoded discs, automatic sequence). Tape: ●● 4X3X 3850, \$24.98.

Comparison:

Souliotis, Gobbi, Cava, Gardelli

Lon OSA 1382

A *Nabucco* with Maria Callas as Abigail and Ettore Bastianini in the title role remains one of the might-have-beens, the would-that-there-had-beens, of recorded history. Callas sang the role only in 1949, in Naples. In dim and distorted sound, with squeeze-box orchestral tone and, in the death scene, quality to suggest that the recording was made by Lionel Mapleson, perched in the flies with his cylinder machine, the Naples performance has been published in Cetra's Opera Live series and also in Vox's Turnabout Historical Series (see David Hamilton's discussion, in this issue, of the Callas historical releases). It is a "document" that historians of the diva may wish to study—perhaps "decipher" is the word—but it cannot be taken seriously as a recorded account of Verdi's first success.

For that account, a Cetra set conducted by Fernando Previtali—an Italian Radio performance that inaugurated the 1951 Verdi commemoration—had for many years to serve. It had spirit, especially in its heroine, Caterina Mancini, and had some impressive passages from Paolo Silveri in the title role. But it was rough, and no more than a stopgap. In 1966 there came the London issue (OSA 1382), which Conad L. Osborne in September of that year called "a performance that at least discloses the basic qualities of this interesting opera, and that is recorded beautifully enough to make even the more unfortunate moments still listenable."

Now, twelve years later, there arrives a competitor. I find it hard to choose between them. In a summary comparison, I would suggest that while some things about the new Angel are brighter and better, the London set still "discloses the basic qualities" of the opera more accurately. The Angel, however, is the first complete *Nabucco*. In the London album, the protagonist omits ten and then sixteen measures of his most difficult music.

When Benjamin Lumley introduced *Nabucco* to London, in 1846 (it was disguised as *Nino, Re d'Assiria*, and the Jews became Babylonians), he wrote of his prima donna, Giulia Sanchioli, that, "wild, vehement, and somewhat coarse, she attracted by power, spirit, and fire. . . . As a declaiming, passionate vocalist, she created an effect . . . 'the right woman in the right place' in this melodramatic opera." In a similar way, Elena Souliotis creates an effect in the London recording. She has power, spirit, and fire—but she lacks delicacy, another quality that an Abigail needs. The Angel set presents Renata Scotto at her spunkiest, but she is also delicate.

In temperament and vocal weight, one might think that the casting director had got the two ladies—Scotto as the formidable

spitfire Abigail, and Elena Obraztsova as the gentle, lyrical Fenena—the wrong way round. Not in range, of course. Fenena is a soprano role often taken by mezzos, and easily compassable by them (in the autograph, there survives Verdi's own "repointing" of Fenena's aria for higher voice), while Abigail is indisputably a soprano part, with several important high Cs. (The Cetra/Turnabout set preserves, even through the awful recording, some of the firmest and easiest high Cs Callas ever put on disc.) Some of Scotto's highest notes take on that squeaky quality that her voice acquires when she forces up the pressure; and down below, some of the weighted chest tones are

exaggerated. But energy, spirit, and conviction mark her performance, and there is much strong, accurate singing. Like all her work, this is carefully and thoughtfully prepared, with a real sense of what she wants to express and how best to express it; and it is never mannered or self-indulgent in the way that her singing can be when she performs with a conductor more permissive than Riccardo Muti is. Her treatment of coloratura—of the "Casta Diva"-like filigree spun round the line of "Anch'io dischiaso un giorno"—is particularly admirable; she doesn't flick through it but gives it full dramatic value.

The first exchanges of Fenena and Ish-

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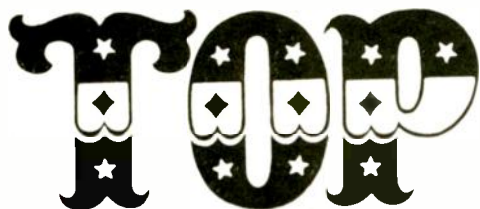
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CIRCLE 59 ON PAGE 99

mael (Veriano Luchetti) sound absurd; they bawl out their intimate declarations. Queen Victoria complained of Mr. Gladstone that "he speaks to Me as if I was a public meeting." This Fenena might say the same of her Ishmael; and then she answers right back in the same manner. Luchetti continues in that vein throughout. In ensembles, he seems convinced that the tenor always has the tune. In the first finale, where Fenena and Ishmael join in octave phrases marked piano, it sounds as if they were in full voice but have been subdued by the sound mixer. Fenena's cantabile preghiera, "Oh dischiuso è il firmamento," is, however, smoothly and sensitively sung. All the same, I regret that a sweet lyric soprano was not chosen for the role. Gabriella Gatti, a Desdemona, does it, and does it well, on the old Cetra recording.

But Fenena and Ishmael are subaltern roles. Abigail, Nebuchadnezzar, and Zechariah (to use the familiar Biblical spellings) must carry the weight of the opera. Matteo Manuguerra was an interesting choice for the title role. (Originally Sherrill Milnes was announced for it, and later Piero Cappuccilli.) A decade or so ago, Manuguerra proved his Verdian merit as the Posa of a French Radio performance of Don Carlos (a tape of which supplies ammunition for those who believe that Carlos sounds best performed in the original language). In Nabucco, he compasses all the part in a well-schooled baritone of excellent timbre. And yet—here, as in his various Met roles—he seems to lack some force of personality. Tito Gobbi (in the London set) recorded the part late in his career, and Osborne found him "leagues away from the suavity and beauty of tone and line that is a necessary ingredient of the role." But reaction to Gobbi has always been personal, and diverse. I find him commanding, strongly characterized, and powerful—more of a king, and more of a Verdian character, than many baritones able to vocalize the music more easily; more arresting than Manuguerra. The latter's idea of sotto voce, when launching the first-act finale, is not mine.

Nicolai Ghiaurov has recorded Zechariah's three solos before: the cavatina and profezia on London OS 26146, the preghiera on OS 25769. The voice now is not quite the grandly sonorous organ it was then. In the cabaletta of the cavatina there is a tendency to coo notes that were once firmly struck. The preghiera is sung with grave, smooth beauty of tone, and yet there is a quality that might perhaps be described as "cavernous." Of course, one is measuring Ghiaurov against standards he himself set. It is still a noble, impressive performance, one of the finest things he has put on record in recent years, and much more the real thing than London's Carlo Cava.

On the recital disc, as in the opera, the profezia is preceded by the famous chorus "Va, pensiero." It is conducted there by Claudio Abbado. And that brings one to discussion of the conducting of the new Angel set. Muti might be considered at once the main strength and the main drawback of the new version. On the credit side, he secures—from his own orchestra, the Philharmonia—playing of extraordinary power, beauty, and precision. The textures are lim-



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pid. For example, I doubt if the busy bassoon writing under Zechariah's cabaletta can ever before have been heard so clearly as it is here. One is made aware of every detail of the scoring. In long choral or long instrumental lines there is also uncommon beauty of tone and beauty of phrasing. (The chorus is very good.) And Muti has paid scrupulous attention to all the markings to be found in Verdi's score.

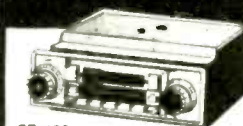
On the other hand. . . . On the last page of the Angel booklet there is a note headed "A Conductor's Approach," and it contains the defensive statement: "Occasionally Riccardo Muti appears to adopt fast tempi and . . . he may not stick rigidly to the indicated metronome marking." Well, there are no indicated metronome markings in *Nabucco*. But Muti does adopt fast tempos: again and again, tempos so fast, so unnaturally fast, that the excitement, the urgency of the music evaporate in a virtuoso—even a vulgar—display.

To the director of the Fenice, in 1842, Verdi wrote: "I would beg you to point out to the conductor that the tempos should not be too broad. They should all move, especially in the canon in the second-act finale." But there is a difference between moving and scampering. In Abbado's conducting of "Va, pensiero," and in Lamberto Gardelli's conducting of the whole opera (for London), the tempo moves. In Muti's conducting, almost all the fast numbers are rushed. Verdi marked the chorus before the first-act finale ("Lo vedeste," with its quasi-fugal entries) *allegro agitatissimo*. In Gardelli's version, the extreme agitation is created by the chorus' rhythmic incisiveness and by its timbre. In Muti's, it is all taken *allegro agitatissimo* and becomes a breathless scramble that leaves no space for expressing agitation. Likewise in the final section of the overture, in the presto of the first finale, in the canon, and in the cabaletta of *Nabucco's* aria.

A similar exaggeration marks other points of the interpretation. Sometimes the steep dynamics are vastly impressive and aptly Verdian—for example, the swell in the four choral bars, punctuating Zechariah's first recitative, which are marked to rise from piano to forte. But the hugely braying brass in the loud measures of "Va, pensiero" simply draws attention to itself and away from the melodic surge of the piece. The recording is similarly extreme. After the thunderbolt has struck at the end of Act II (curiously tame, that moment), the *pp* tutti exclamation "Oh come il cielo vindice" is so soft that I went back to make sure that it was really there. The off-stage cry of "Fenena a morte" during Nebuchadnezzar's aria is almost inaudible.

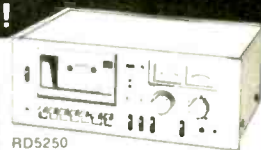
In fact, as in almost all Muti's work, I find an odd and disconcerting mixture of, on the one hand, superfine, marvelously polished execution, passion, and scruple with, on the other hand, a glossy, flamboyant, almost bandmasterly approach that seems to miss all the humanity and profundity of Verdi's music. That note referred to above says: "He totally rejects unauthorized embellishments." "Unauthorized" begs the question; otherwise the attitude mingles pride with ignorance. What would Verdi himself have said about an Abigail who simply sang the

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cabaletta of her aria twice through and the second time stuck unimaginatively to the mere letter of the written notes? A.P.

VERDI: Rigoletto; Il Trovatore—See Rossini L'Italiana in Algeri.

WILLIAMSON: Symphony for Organ; Vision of Christ-Phoenix. Allan Wicks, organ of Coventry Cathedral. [Brian Culverhouse, prod.] CHALFONT C77 015. \$7.98 (Chalfont Records, Box 11101, Green Lantern Station, Montgomery, Ala. 36111).

Although his Establishment credentials are impeccable—what could be more respectable than to be organist of Canterbury Cathedral?—Allan Wicks is one of the most imaginative and creative church musicians alive, and his zeal for new organ and choral music has been responsible for significant contributions from Peter Maxwell Davies, Iain Hamilton, Alan Ridout, and Malcolm Williamson. It was Wicks, in fact, who unwittingly inspired Williamson's *Symphony for Organ* by his request for a brilliant recital piece of ten to fifteen minutes' duration: like Topsy, though, the work "grew"—into a thirty-five-minute cycle of seven movements—and its sheer scale makes it a notable addition to the modern organ repertoire.

It is unashamedly a derivative work, but alongside echoes of Bartók, Messiaen, and Stravinsky is a certain razzle-dazzle that is unique to Williamson. Great fistfuls (and feetfuls) of dissonant full-organ chords give way to the spare textures of a Stravinskian sonata, only to be followed by a movement (Aria I) in which a hypnotic cantabile melody with lush accompaniment evokes the spirit of Messiaen; the jazzy and irreverent Toccata and the concluding Paean are quintessential Williamson. The fifth movement, *Aria II* (Passacaglia), bears as a superscription Donald Davidson's comment (unaccountably omitted from the sleeve note) on the poet/mystic Francis Thompson. "He lifted up his eyes from London pavements and beheld Christ walking on Thames water, and Jacob's ladder shining over Charing Cross"—and this is said to suggest the inspiration of the symphony as a whole. This *idée fixe* finds its musical equivalent in "a chromatic chant-like melody" that binds the symphony together into a cyclical whole.

Vision of Christ-Phoenix, composed for the 1961 Coventry Cathedral Festival, is something of a musical metaphor for the death and rebirth of the cathedral itself. Stanley Webb, writing in *Gramophone*, describes the piece aptly: "The violent picture of flame and desecration is vividly painted, giving way to a soft flute-like song of hope, leading to a powerful evocation of the triumph of resurrection."

Wicks plays both works with obvious conviction and skill, even making something like sense out of the lurching rhythms, crashing chords, and curious snatches of melody. The recording, by the way, is one of several recently produced for the English Polydor label by Brian Culverhouse, who a decade ago masterminded EMI's now extinct "Great Cathedral Organ Series." It is

much to his credit that he has captured the enormous range—pitch, timbre, and dynamic—of the Coventry organ with such visceral impact, and this would be a happy world indeed if every disc matched the outstanding quality of the Chalfont pressing. S.C.

Recitals and Miscellany

MARIA CALLAS: Various recordings. For a feature review, see page 67.

ROY MASSEY: Organ Recital. Roy Massey, organ of Hereford Cathedral (England). [Michael Smythe, prod.] VISTA VPS 1035. \$7.98 (distributed by German News Co.).

ADRESSEN: Theme and Variations. **BOSSI:** Divertimento in forma di giga. **HOLLINS:** Concert Overture in C minor. **PARRY:** Chorale Fantasia: O God, our help. **ELEGY.** **REGEN:** Chorale Prelude: Ein feste Burg, Op. 67, No. 6. Introduction and Passacaglia, in D minor. **SCHUMANN:** Canon in B minor, Op. 56, No. 5. **SMAR:** Postlude in D. **WHITLOCK:** Toccata.

It's good to see that organists are becoming less single-minded in their pursuit of everything "baroque." Now, perhaps, we can more realistically and sympathetically evaluate some of the nineteenth century's more distinguished contributions to the organ and its literature, and I suspect we have much to learn from such figures as the Englishman "Father" Henry Willis and the Parisian Aristide Cavaille-Coll.

The best of Willis' work—I'm thinking of the stunning instrument in Salisbury Cathedral and the recently restored chancel organ in St. Paul's, London—dates from the 1870s. Listening to these splendid instruments one can only marvel at the sheer beauty of the individual stops and the majesty of the ensemble—the boldness and clarity of the choruses, the brilliance of the upperwork, and the éclat of the reeds. By the 1890s Willis' voicing had mellowed a good deal, but even in the 1893 organ at Hereford Cathedral one hears a tonal conception of real nobility.

Nobody is more assured of this instrument's virtues than organist Roy Massey, whose performances on this record are imbued with evident relish. He has a strong sense of rhythm, of drama and color, and he understands the expressive potential of the discretely manipulated swell pedal. Much of the music here might be considered second-rate, but virtually all of it is idiomatic and enjoyable, and Massey knows how to bring it to life without trivializing it. Having heard this lovely organ in person last summer, I can vouch for the fidelity of the recorded sound; indeed, only a blurry photograph on the front of the record sleeve and a mixed-up contents list mar an otherwise commendable production. S.C.

LEONTYNE PRICE: Prima Donna, Vol. 4. Leontyne Price, soprano; New Philharmonia Orchestra, Nello Santi, cond. [Richard Mohr,

prod.] RCA RED SEAL ARL 1-2529, \$7.98
Tape: ARK 1-2529, \$7.98; ARS 1-2529, \$7.98.

BERLIOZ: La Damnation de Faust: D'amour l'ardente flamme. **CILEA:** Adriana Lecouvreur: Poveri fiori. **DVOŘÁK:** Rusalka: O moon in the deep sky. **KORNGOLD:** Die tote Stadt: Glück, das mir verblieb. **MASCAGNI:** Cavalleria rusticana: Voi lo sapete (with Elizabeth Bainbridge, mezzo-soprano). **MENOTTI:** Amelia Goes to the Ball: While I waste these precious hours. **MOZART:** Idomeneo, K. 366: O smania! O furia! . . . D'Oreste, d'AJace. **PUCCINI:** Turandot: In questa reggia (with Daniele Barioni, tenor; Ambrosian Opera Chorus). **J. STRAUSS:** Die Fledermaus: Czardas. **VERDI:** Macbeth: La luce langue. **WAGNER:** Tannhäuser: Dich, teure Halle.

While some of these performances are what one would expect from a singer of Price's reputation and gifts, some are badly flawed, and at least one is so bad that it should not, in my opinion, have been released.

By now Price's virtues and faults are familiar: on the one hand a wonderfully lustrious top and a disarming sense of conviction, and on the other an inadequate lower register, an unreliable grasp of style, and a tendency to approach her roles in a rather generalized manner. As one might expect, both good and bad characteristics are in evidence on this occasion. But there are also signs of vocal fatigue that impair the beauty of her upper voice and emphasize the lack of substance down below. "Dich, teure Halle," for example, is not really comfortable for her; there are some intonational problems in the aria from *Die tote Stadt*; the final high A of "While I waste these precious hours" is not properly centered; and, throughout, there are some unnervingly explosive releases of climactic high notes.

The worst performance here, to my ears, is "La luce langue," with its puffed-up, hollow sound and its stretches of ugly, unresonant low-lying tone. The dramatic coloratura of Mozart's *Elettra* (a role I have never heard really well sung) defeats Price, as does fast-moving music in general—for instance, the second half of the *Fledermaus* Czardas, which turns into an inelegant scramble (though it is topped by a secure, sustained top D such as most Rosalindes can only make a gesture toward achieving).

The arias that elicit the best singing from Price on this occasion are those that are both high in tessitura and lyrical in style. Rusalka's invocation to the moon and Adriana's plaintive lament are beautiful in sound, and so is much of Marietta's song from *Die tote Stadt* and Amelia's aria. The high tessitura of the *Turandot* scena, which commendably includes the choral parts and the tenor's responses (here sung by a harried-sounding Daniele Barioni), gives her no technical trouble, though the contrast with the Korngold that precedes it serves to demonstrate the soprano's greater conviction in lyrical music.

Price's Italian pronunciation is good; her German, French, and Czech are dutiful (though the sound of *r* in the latter defeats her). She does not, however, make anything memorable of her words. The recording is satisfactory, if without ideal depth. Nello Santi's conducting is, as usual to my ears, undervalued. RCA offers texts and translations, the latter including some literal and some singing versions and, in the *Idomeneo*, some inconsistencies of nomenclature. D.S.H.

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CIRCLE 32 ON PAGE 99

Theater and Film

GREAT AMERICANA FILM SCORES. National Philharmonic Orchestra, Fred Steiner, cond. [John Steven Lasher, prod.] ENTRA'CTE ERS 6506, \$7.98.

HERRMANN: The Kentuckian. **NEWMAN:** Down to the Sea in Ships (with the Ambrosian Singers). **FRIEDHOFFER:** In Love and War. **WAXMAN:** Sunrise at Campobello.

A mixed-bag disc, the selections for which were apparently determined by the subject matter of the films—which examine four different faces of American heroism—more than by the music.

Bernard Herrmann's little-known *The Kentuckian*, composed for the 1955 Burt Lancaster movie, starts off innocently enough, with only a distinguishing tic or two in the melodic line revealing the composer's profile. But the music gathers more and more of his characteristics as it moves along, and by the time it reaches the bizarre "Scherzo" or the ominous "Rope" sequence, it could very well have come from one of Herrmann's fantasy or suspense efforts.

In his 1960 score for *Sunrise at Campobello*, Franz Waxman adapted his style to his subject (Franklin D. Roosevelt) by using what might be called a modern Americana idiom, with mild, wide-interval dissonances and lots of off-off-beat syncopations. Especially striking among these all too brief excerpts is a section—heard toward the middle—in which a broad theme in the high strings is polyrhythmically juxtaposed over a choppy ostinato accompaniment.

Particularly when compared to the complexities of the Herrmann and Waxman music, the two excerpts from Hugo Friedhofer's 1958 *In Love and War* seem rather flimsy. Although appropriate enough to the film, these drum-and-bugle-call pieces rarely rise above standard war-film clichés. But in contrast to Alfred Newman's *Down to the Sea in Ships*—unadulterated corn from start to finish—the Friedhofer sounds like Alban Berg.

A decided plus for this album is the sound reproduction. The Herrmann score, for instance, while eliminating trumpets and trombones, depends heavily on its horns, and these have been recorded not only with admirable clarity, but in perfect balance with the other orchestral forces. Conductor Fred Steiner turns in a particularly sensitive interpretation of the Friedhofer and fares quite well in the other selections, save the Newman, which deserves no better fate.

R.S.B.

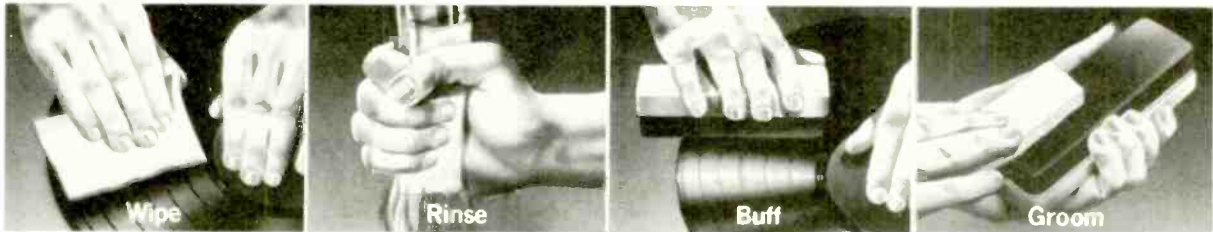
WAR AND PEACE. Original film soundtrack recording. Composed by Nino Rota; Franco Ferrara, cond. COLUMBIA SPECIAL PRODUCTS ACL 930, \$7.98 (mono) [from COLUMBIA CL 930, 1956].

IL CASANOVA DI FEDERICO FELLINI. Original

96

HIGH FIDELITY MAGAZINE

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CIRCLE 12 ON PAGE 99

film soundtrack recording. Composed by Nino Rota; Carlo Savina, cond. CAM SAG 9075. \$7.98 (distributed by Peters International).

If someone were to ask what has been the greatest collaboration between composer and film director after Bernard Herrmann/Alfred Hitchcock. I would have to say Nino Rota/Federico Fellini. In fact, Rota has not composed any memorable scores, with the possible exception of *The Godfather*, outside his collaborations with this great director.

Just how uninteresting he can be sans Fellini becomes immediately apparent in the tired big-theme symphonism that pervades his score for King Vidor's 1956 *War and Peace*, recently reissued by Columbia Special Products. As I recall, the music works rather well in the film, but with its obligatory quoting of French and Russian anthems (not to mention Mussorgsky and Tchaikovsky), its waltzes and Russian dances, and its tubby, late-Romantic orchestral style, it could just as easily have been penned by a hundred other composers. And the antiquated recorded sound doesn't help.

I feel that, in *8½* and *Juliet of the Spirits*, Fellini reached a peak he has not attained since. Still, many of his subsequent movies, for all their bloated, autobiographical surrealism, are undeniably brilliant visually and aurally, with Rota's scores contributing immeasurably. Such is the case with *Casanova* (which features the rather unlikely casting of Donald Sutherland in the title role). So dazzling are the cinematography and editing, and so atmospheric, eerie, and sometimes otherworldly is the music (in spite of its roots in popular idioms), I found myself riveted to the film (in spite of the inanities of the plot and dialogue).

It is Rota's ability to take the simplest of melodies, the most accessible of popular song and dance forms, and transform them into something totally different that makes his scores so suitable for Fellini's style. *Casanova's* principal theme, for instance, is basically a music-box waltz to which the composer gives all sorts of strange colorations via the instrumentation (including what sounds like a glass harmonica), the hypnotic ostinato accompaniment, and the striking modal shifts in the melodic line.

Even more offbeat is the herky-jerky music that pops up in the various "Magic Bird" sequences, which Rota characteristically presents in a variety of styles. "*L'Uccello magico a Dresda*," for example, brings in vocalists and concludes rather like an operetta gone bad. The distinctive Fellini circus-surrealism turns up in a cut entitled "The Great Mouna." There is a captivating minor-key melody (the "straightest" of the entire score) first sung by the giant at the carnival and later presented in an instrumental version. And "The Duke of Wurttemberg" reaches a pitch of Stravinskian frenzy above which a tenor voice suddenly incants one of those classic Rota-Fellini themes.

Rota's score for Fellini's *Casanova* definitely ranks alongside his music for *8½*, *Juliet of the Spirits*, *Amarcord*, and—in a different vein—*Satyricon*. In many ways, it may be his best accomplishment yet. R.S.B.

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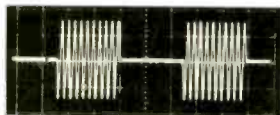
CIRCLE 10 ON PAGE 99

The most sought after loudspeaker in Europe is almost unknown in America.

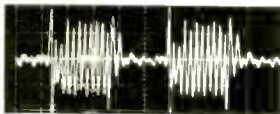
Until now.

You've probably never heard of Sinus, because until recently, our loudspeakers have been completely unavailable in this country. But on the Continent, the Sinus name has long been synonymous with extraordinary sound reproduction. A sound so pure and true that Sinus of Sweden is now the largest manufacturer of fine loudspeaker systems in Western Europe.

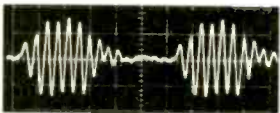
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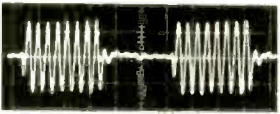
Input signal.



This loudspeaker exaggerates the initial and final sections of the signal. The result is a sharp, distorted sound.



In this case the speaker is unable to reproduce the signal correctly or quickly enough. Here the resultant sound is lifeless and unclear.



Here the speaker (Sinus 3400) has been able to reproduce the signal with sufficient speed and accuracy; qualities we require in every Sinus loudspeaker.

speaker's capacity to reproduce transient signals quickly and accurately. Transients are rapid sequences of fundamental tones and varying overtones which identify a particular sound or instrument.

The virtual elimination of masking effects, coupled with exceptionally fast and accurate reproduction of transients are the two most important objectives at Sinus laboratories in moving toward the near-perfect sound.

Traditionally, one of the major deterrents to pure sound reproduction has been the "masking effect." Masking effect is experienced as a blending or blurring of sound frequencies and is perceived by the human ear as distortion.

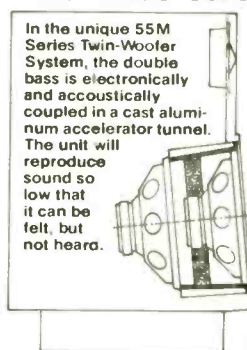
At the most advanced sound laboratories in Europe, Sinus engineers can reduce significantly these masking effects for an unexcelled clarity of sound. Because of all the world's leading speaker manufacturers, we are one of the few to use both free field and reverberant chamber test methods for determining an accurate and truly representative measure of sound quality.

A second important characteristic of fine sound reproduction is in the loud-

Toward a near-perfect loudspeaker.

All loudspeakers in the Sinus line have been perfected to exhibit minimal distortion due to masking effects and to reproduce transients with maximum speed and accuracy.

Sinus offers two basic types of speaker design in five models. Our acoustic suspension loud-



In the unique 55M Series Twin-Woofer System, the double bass is electronically and acoustically coupled in a cast aluminum accelerator tunnel. The unit will reproduce sound so low that it can be felt, but not heard.

speakers, the Sinus 2300 and 3400 Series, boast an unusually open and natural sound. Our bass reflex loudspeakers introduce a number of innovative design and engineering features. The 44F Series features horizontal placement of midrange and tweeter units to create a more even

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All Sinus loudspeakers are compact in size, made with natural wood veneers throughout and sold only in matched pairs.

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(617) 588-1800

C.C.L. Enterprises, Inc.
30682 San Antonio St.
Hayward, Calif. 94544
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BEYOND THE FOREGROUND: A DIRECTORY OF SMALLER AUDIO COMPANIES

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. We plan to continue the directory in subsequent issues.

Audioanalyst

P.O. Box 262
Brookfield, Conn. 06804
Malcolm Scholl
(203) 354-5521

A loudspeaker exists to replicate everything, note and nuance, that has been captured on the recorded surface, neither adding nor subtracting. Only research carried out in the light of this tenet can promise an authentically superior high fidelity loudspeaker system.

In translating this essential axiom into speakers deserving of the Audioanalyst emblem, our work has followed a consistent pattern. We insist that our loudspeakers embody genuine advances—differences that can be heard in the listening room. Such advances are possible only because our ongoing investigation of design and performance is rooted in careful analysis of psychoacoustic principles. It is no accident that our name, Audioanalyst, mirrors this pragmatic, scientific method.

Audioanalyst speakers are often singled out for their smooth, extended bass response. And our insistence on linear power response, so important in the critical mid-range area where the human ear can detect very slight changes in volume, results in minimum coloration.

One of our most noteworthy achievements has been the design of a loudspeaker with dispersion and polar response charac-

teristics that set new standards in stereo imaging. With the development of the Anthem Array, the first speaker system to achieve uniform polar response, Audioanalyst moved the state-of-the-art in speaker design a measurable step forward. Not everyone can afford a loudspeaker as expensive as the Anthem Array, however, so our design team continued to search for a less costly way to arrive at the same performance level.

We are pleased to report that breakthrough has been achieved: the Phase Matrix Group, a family of four speaker systems that add a third dimension to stereo imaging. The newest entry in this series of professional loudspeakers, the very small M2, houses in a lacquered walnut-finish cabinet the high-frequency driver common to the group, to give it a family sound as well as a family look. Its small size makes it ideal for home or automobile installation.

BR Distributors

40 Deerfield Dr.
Easton, Conn. 06612
Robert W. Stankus
(203) 261-4418

Organized in 1976, BR is a distributor of audio high fidelity products and manufacturer of communications accessories. Among the products handled are Ariston and Glenburn turntables, Black Widow magnetic cartridges, Stafford electronic components, and Clarke speaker systems. Estimated 1978 sales were around \$2.7 million.

C.C.L. Enterprises, Inc.

30682 San Antonio St.
Hayward, Calif. 94544
Gregory Calo
(415) 487-1144

C.C.L. Enterprises is a national bidivisional firm specializing in importing and distributing high-quality merchandise. The firm represents Sinus of Sweden through its electronics division (the second division is automotive).

Sinus is an old and large speaker manufacturer in Sweden, priding itself on the manufacture of nearly all the components that go into its products. Additionally, it has both a free-field (anechoic) chamber and a reverberant chamber within its facilities. The cabinetry is exceptional in detail, using natural wood veneers. All Sinus loudspeakers are sold in matched pairs only. Compactness is Sinus' trademark, and innovation is obvious, as in the 55/M Series, which employs a twin woofer design within a tunnel. National distribution is offered through facilities in Massachusetts and California.

Cizek Audio Systems, Inc.

15 Stevens St.
Andover, Mass. 01810
Sheldon Feinstein, President
(617) 470-0736

In July of 1976 a group of engineers and business people formed Cizek Audio Systems, a company dedicated to the design and manufacture of accurate audio components. The guiding principle of this company is to manufacture and distribute products of audiophile quality at an affordable price. Cizek's first product, the Model I loudspeaker, was delivered in October 1976 to two dealers in the Boston area. The initial response was enthusiastic as the public recognized its outstanding sound quality. It soon became apparent that Cizek's goals were understood in the marketplace as more and more dealers accepted Cizek units as their favorite loudspeaker.

In the spring of 1977, Cizek introduced its Model II at a lower price than the Model I but with the same qualities. Again the acceptance was immediate.

In the summer of 1977, Cizek tripled its manufacturing space by moving to Andover, Mass. Here, the Model III and the bass unit MG-27 were developed.

1978 marks the beginning of our third full year in business. We point with pride to the more than 150 U.S. dealers and foreign distributors who are helping us show the consumer that true high fidelity need not be high in price. No compromise in quality, continued research toward accurate reproduction... these are our goals and will continue to be.

KA / Kustom Acoustics, Inc.

6624 West Irving Park Rd.
Chicago, Ill. 60634
Ted Karson, President
(312) 685-6609

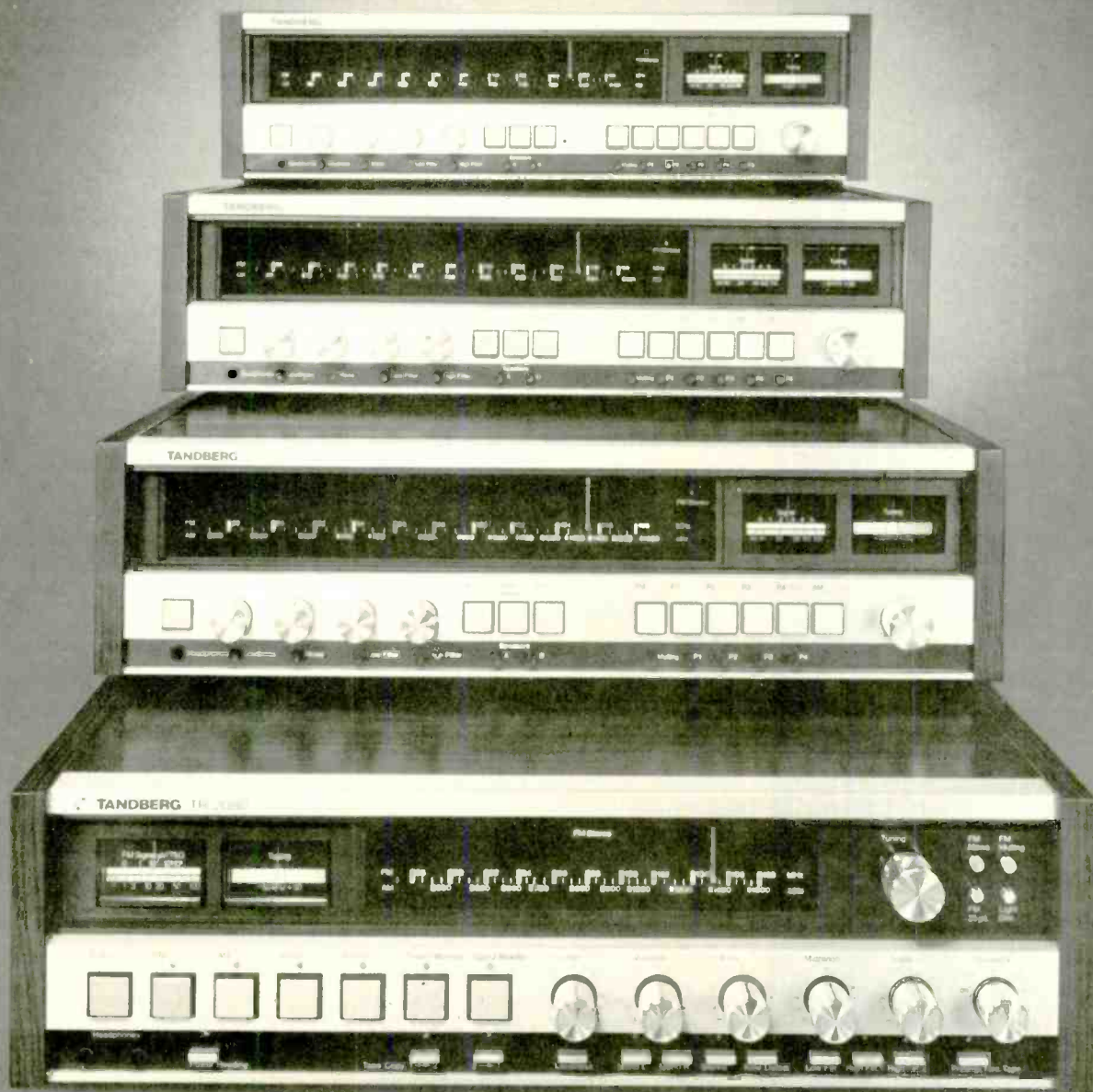
Kustom Acoustics is a small, ten-year-old Chicago-based company manufacturing the finest in stereo speaker systems. The KA line starts with the Imp and travels through a potpourri of transmission-line systems terminating with the 1979 Titan Labyrinth. The cabinetry of all KA models is said by most to show the finest workmanship in the industry.

The 1979 Titan Labyrinth, our newest product release, comes with standard built-in biamping providing 500 watts per channel of amplification. As standard on all KA speakers, the 1979 Titan Labyrinth features mirror-matched veneer and components.

The Labyrinth is a highly sophisticated transmission line / Labyrinth, high-end speaker system. The bass line consists of double spiraling, nine-foot trapezoidal folded lines for extremely clear bass to 16 Hz. The Labyrinth comes standard for single, biamp, or triamplification. Power handling is 200 watts.

The Regency has a tapered acoustical-line / semi-Labyrinth loading principle and incorporates triamping for focus on power distribution, enabling better control over drivers. The Regency's new tweeter has a frequency and transient response similar to those of electrostatic tweeters.

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In this world of mass produced look-alikes, there are always a select few products that stand out above the rest. Their purchase price is often less premium than you may imagine, particularly when you consider their extraordinary operating flexibility, construction and years of dependable service. And, of course, their superior level of performance.

Knowledgeable experts around the world place Tandberg high fidelity products in that special category. The TR 2080 stereo receiver, for example, is actually made up of a recognizably superior electronic-tuner, preamplifier and power amplifier, each on its own separate chassis, perfectly balanced into one integrated unit. Moreover, these individual sec-

tions of the receiver offer specifications & flexibility normally associated with individual components whose total price would be much, much more than the TR 2080. So, perhaps it is even possible to consider it a bargain.

See the entire Tandberg receiver line—a series that shares more than just their exquisite rosewood cabinetry. Indeed, you will discover a commonality of performance, specifications and features that reflect the world-famous Tandberg commitment to integrity.

For the name of your nearest dealer, write: Tandberg of America, Inc., Labriola Court, Armonk, N.Y. 10504. Available in Canada.

CIRCLE 83 ON PAGE 99

TANDBERG

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BGW Systems, Inc.
13130 South Yukon Avenue, Hawthorne, California 90250
In Canada: Omnimedia Corp. 9898, Route de Liesse, Dorval, Quebec H9P 1A2

CIRCLE 81 ON PAGE 99

The Imp is designed for the music-conscious listener with limited space. Its life-size dynamic range and moderately high efficiency are most impressive.

To be released in 1979 is the Trapezium, a six-foot-high, wedge-shaped speaker system styled after modern jet aircraft. This "Speaker of the Future" will be the most contemporary speaker in existence.

Series 20

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Jim Teal
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Series 20 got its start in the spring of 1978 as an experimental stepchild of the giant high fidelity manufacturer Pioneer Electronics of Tokyo (U.S. Pioneer in America). The high-end electronics company has maintained a high-quality, high-technology image in the marketplace with such products as Class A amplifiers, sophisticated quartz-locked tuners and high-performance quartz-controlled turntables. As a specialized division of a large electronics corporation, Series 20 has developed an extremely tight and loyal dealer structure that includes many of audio's retail elite. Future plans for the company are to broaden the product lineup with more innovative high-end electronics while maintaining accessibility to retail dealers.

Sound Concepts, Inc.

P. O. Box 135
Brookline, Mass. 02146
Joel M. Cohen
(617) 566-0110

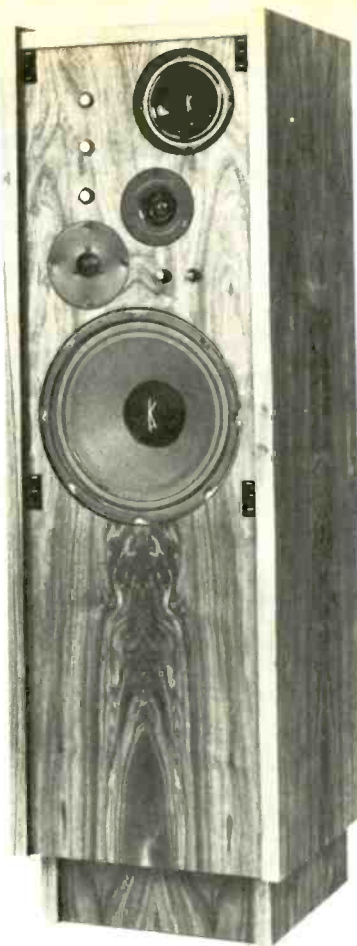
The company was founded in 1975 by Joel Cohen, an audiophile who had previously specialized in the design of semiconductor devices and aerospace electronic equipment. Sound Concepts has thus far concentrated on the design and manufacture of time-delay-based ambience restoration systems. The Model SD-50, our first such system, was introduced in late 1975.

Sound Concepts is dedicated to the design of innovative audio equipment which will provide additional realism to music reproduction without the sacrifice of other sonic qualities. The performance of Sound Concepts' delay systems is up to the standards of substantially more expensive professional equipment. In addition to home music systems, they have been used in hundreds of movie theaters as part of the sound systems installed for the playback of Dolby-processed films such as *Star Wars* and *Saturday Night Fever*. They are also used by recording studios and in sound-reinforcement installations.

Sound Concepts' present products include the SD-550 home ambience recovery system and the AD 1060 Concert Machine for automotive sound systems.

To be continued

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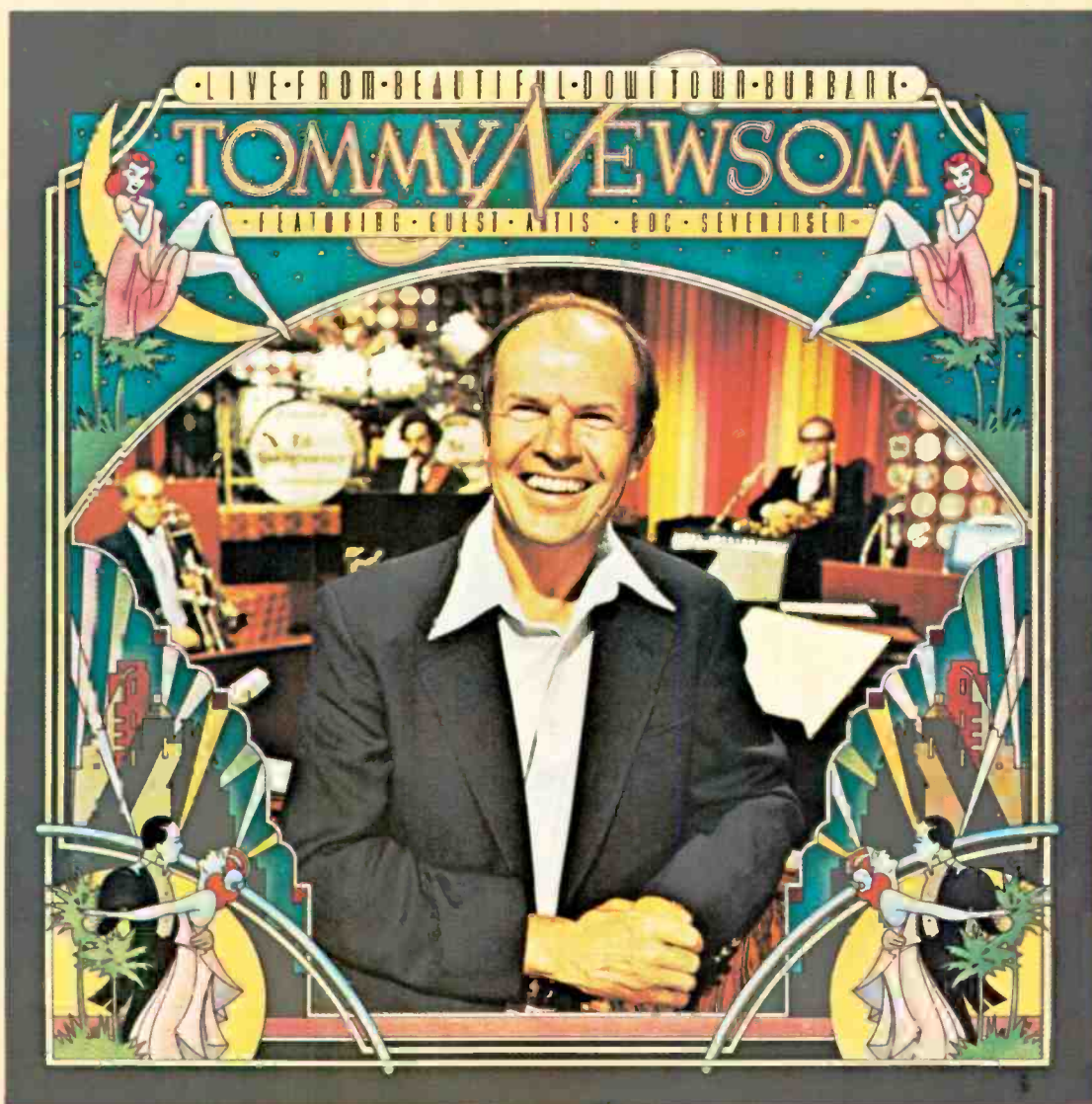
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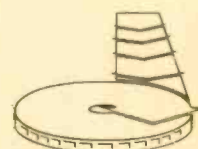
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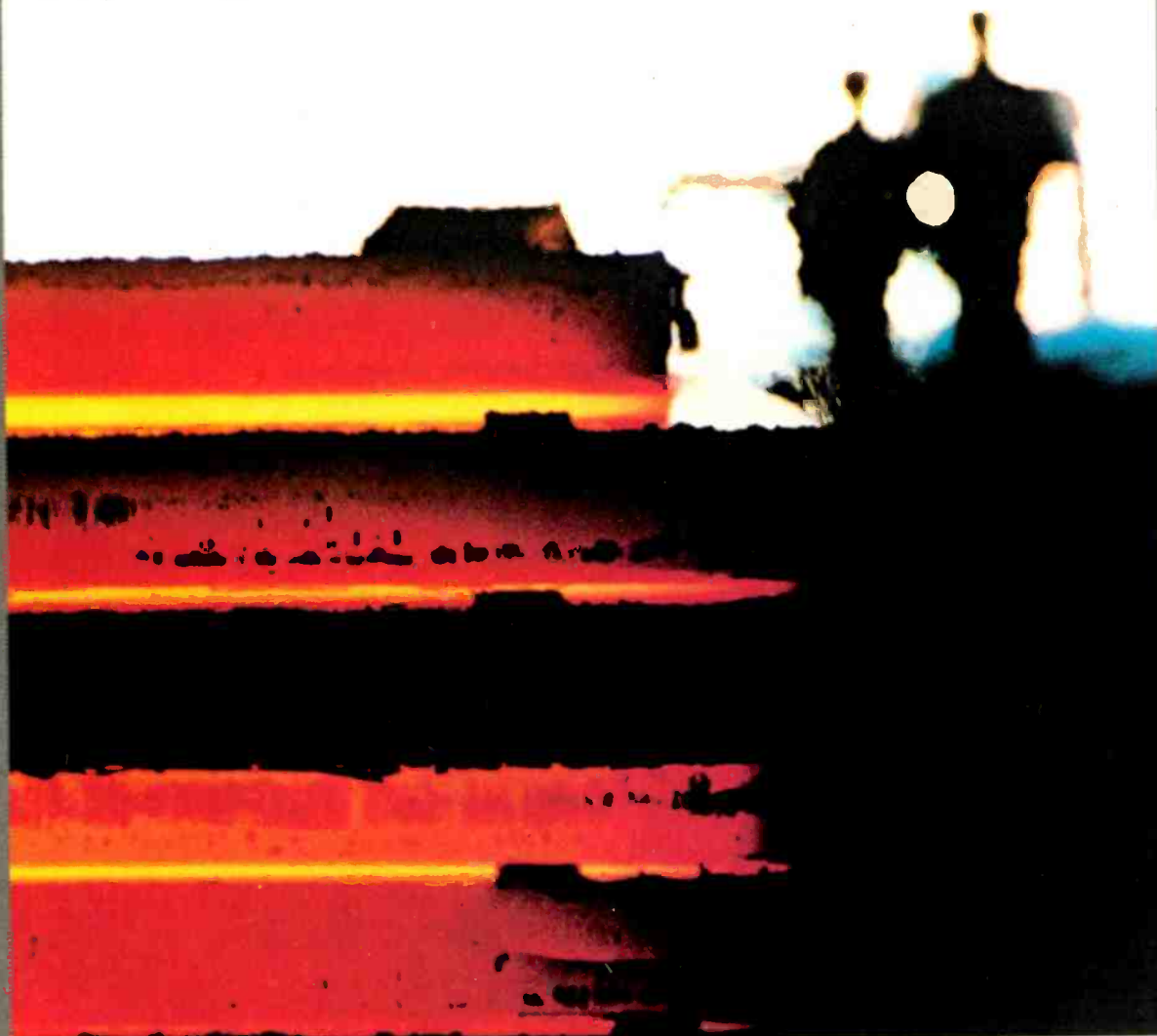
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Steely Dan/greatest hits



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Do It Again
Reeling In The Years
My Old School
Bodhisattva

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Show Biz Kids
East St. Louis Toodle-oo
Rikki Don't Lose That Number
Pretzel Logic
Any Major Dude

AK-1107/2

Side 3

Here At The Western World†
Black Friday
Bad Sneakers
Doctor Wu
Haitian Divorce

Side 4

Kid Charlemagne
The Fez
Peg
Josie

Produced by Gary Katz

†Previously unreleased



RECORDS
ABC DELIVERS

Backbeat

Earth, Wind & Fire— Mystagogic Funk

by John Storm Roberts

In an industry where lavish hype is just about the norm, it's surprising how often big popular successes creep up on the music world unannounced. Many are black acts that develop in their own market—rhythm & blues—through airplay and concerts before crossing over into the pop arena and gaining attention from the major white-oriented media.

Earth, Wind & Fire is a classic example. Their early emergence into the limelight clearly stemmed from their live performances, as anyone who has ever seen one will understand. The skillful combination of ballet, vaudeville, and magic show makes the flashy lasers and flimsy backdrops of most rock groups look like amateur theatricals. Their shows are instant standing-room-only bedlam—even in the press box. When I attended one three years ago, I had to peer between two heads, resting my notepad on someone's shoulder. What we saw were flares, smoke, constant capering, bassist Verdine White (leader Maurice White's brother) taking off like Peter Pan via wires, and a finale that involved a set of traps rotating in midair like a wheel—complete with frenetic drummer. EWF's 1977 show was designed by Maurice White with the help of Doug Henning and George Faison of Broadway's *The Wiz*. It opened with a couple of camp Pharaohs whacking gongs amid explosions, mighty rushing winds, and enough dry ice to freeze the Dead Sea, and closed with a classic magic-act disappearance of what can only be called Ancient Egyptian spacemen.

The links connecting these vaudeville high spots consist of hang-loose humor, tight choreography that



Leader Maurice White (left) and Andrew Woolfolk

contrives a mood of "we just gittin' down with y'all," and heavy, high-decibel party-party. Weaving in and out of it all are falsetto soft-soul vocals or chanting that builds between band and audience. Add to this the trumpet and sax solos that move between basic post-bop and agreeable Jazz at the Philharmonic flag-waving, and some strong rock-oriented guitar playing. And every now and then everything stops for the eerie, gentle tones of Maurice White's kalimba.

That their appeal is not strictly visual is proven by their current record sales. Yet it was only when their fourth album, "That's the Way of the World" (1975), was well on its way to No. 1 on the pop LP charts that they really got heavy exposure. Three earlier albums—"Last Days and Time" (1972), "Head to the Sky" (1973), and "Open Your Eyes" (1974)—had gone gold without much comment from anybody.

"Way of the World" eventually went platinum, and their subsequent release that year, "Gratitude," took the group to No. 1 again. A sixth, "Spirit," climbed to second place, and the 1977 "All 'n' All" recently attained triple-platinum status. This is all particularly remarkable since, though black groups regularly crowd the Top 40, few of them make it to single-digits on the pop LP charts, and virtually none did so three years ago.

The many factors in EWF's remarkable success all originate in Maurice White, the group's guru, producer, and principal composer, and in the brilliant uses to which he has put the lessons of a classic black-music background. He started singing in a Sanctified church in Memphis, Tennessee, about the time he was six years old, and later joined a local drum and bugle corps. Moving to Chicago, he played in high school bands, and, in the early '60s when he was about sixteen, began to tour "with all the *hip* dudes."

Next he studied percussion, piano, and composition at the Chicago Conservatory with a view to becoming a music teacher. Instead he found himself in the recording studio. "I got a chance to play with just everybody I had ever dreamed of playing with: John Coltrane, Sonny Stitt, Muddy Waters, Howling Wolf, the Impressions—everybody! I was on all the hit records. And I learned the theory of producing, writing, and arranging."

In 1966 White signed as drummer with the Ramsey Lewis Trio, a year after Lewis won a Grammy for *The In Crowd*. He moved to Los Angeles in 1970 and formed the first Earth, Wind & Fire. "I wanted to put together an entity that would appeal to more than one culture or bag, you know? I felt that with a group that had overtones of jazz and rock and gospel or whatever, I'd be able to come up with a new music—'spectrum music,' as I relate to it now."

That first EWF disbanded in November 1971 after recording a couple of good albums for Warner Bros. White and his brother Verdine formed the present band the following month and, with only two personnel changes, it has been in existence ever since.

Maurice sings and plays the kalimba and what the press kit rather modestly calls "drums" (five sets of timbales, *drums?*). A few years back, the group became even Whiter with the addition of younger brother Fred on drums and percussion. The non-Whites are Philip Bailey on congas, Larry Dunn on keyboards, guitarists Johnny Graham and Al McKay (who also doubles on percussion), Ralph Johnson as second kit drummer, and Andrew Woolfolk on reeds.

Maurice's concepts and working methods are the key to the band's particular qualities. Though two decades in the studio and on the road have made him capable of achieving any effect he may want, he doesn't work by blueprint. "We're not like a lot of groups that go into the studio with everything ready," he says. "I'll go in with bits and pieces of maybe five or six songs and work on them there. The band has input too.

"Most of what I do is by trial and error. I'll try something and see how it works out. Every one of my albums is a concept album, but the concepts evolve in the studio. At this point I can't tell you where the new album's going. We've got parts of about ten tunes laid down, but they're not finished."

The striking paradox of EWF is that it has attracted an enormous and varied audience, including a strong teenybopper element, with music of complexity, savvy, and wit. The reason for this is simple: White writes from the gut.

"I'm a percussionist through and through, though I love to play around on the piano, feel out the chords. But all sorts of different songs come to me. Some of them are very complex, and some of them are very simple. I don't make any distinctions, I accept everything and work on things the way they come.

"I've always wanted to bring out the universality in music and the feelings. You need the technique, but



White's trademark is the electronic kalimba



Onstage: *Camp Pharaohs*, gongs, rushing winds, and enough dry ice to freeze the Dead Sea

some people let technique get in the way of the feeling. I think of songs as being like paintings. I see the whole song, even though I work on it bit by bit."

Comparisons between painting and music can only go so far, since one exists in space and the other in time. But White's songs do have one strikingly painterly quality: While their development is necessarily linear, most of them are made up of bits and pieces that contrast with, rather than lead logically into, one another. The elements are like the brush-strokes of an Impressionist painting: From a distance the tree or the apple is clearly visible, but as you come closer it breaks up into increasingly unrelated daubs of color.

Not all of White's songs are like this: The 1977 *Love's Holiday*, for example, is a very straightforward love song. But for the most part, and particularly in his spiritual numbers, his lyrics are a collage of incantatory fragments. Looked at closely, the individual lines of *Devotion* are a jumble of catch phrases: "In everyone's life there's a need to be happy," "bless the children," "you need devotion." Step back, and a message emerges that is all the more immediate for not being wrapped neatly in syntactical boxes. At times, as on *Burning Bush* (1976), this technique goes awry. But White's lyrics can rarely bear the chilly scrutiny of the printed page; it is in the context for which they are designed that they work so admirably.

He uses the same patchwork technique musically. The ballad *Imagination*, from "Spirit," mixes various forms of schmaltz into an amalgam of graceful r&b; *Fantasy*, from "All 'n' All," juxtaposes splendid Middle-Eastern strings and rhythm with mid-range and falsetto vocals that move from the strictly rhythmic to the improvisatory and back again.

White's personal trademark is, of course, his elec-

tronic kalimba, the acoustic version of which is common in Africa. Known in English as a finger piano, it is a small board with metal prongs that make a singularly sweet-sounding note when twanged. He first came to use it with audiences one night when he was still part of Lewis' group. "I'd finished my drum solo, and I was wondering what I could do different to bring the people to their feet. So I picked up my kalimba and went out to the front of the stage and started to play it. And they liked it!"

His use of the instrument is infrequent but always striking. In *Power* (1972), its delicate, otherworldly quality moves about the slashing rhythm like a spirit over stormy waters; in *Biyo*, from "Spirit," White twangs away at the tumbling blues-inflected riffs of an earlier guitar solo before joining the organ in a reflective introduction to the next cut, *Burning Bush*.

Aside from the kalimba, the most obvious ingredients of EWF's sound are the powerful rhythm section, strongly Latin-influenced and heavy on the percussion; vocals that make use of an unusual amount of falsetto in both lead and backup; and a good deal more jazz-influenced solo work than was common before they made it fashionable. Four or five years ago, especially in concert, the group would periodically turn into one huge percussion section, with White presiding over five sets of timbales, and each man in the hired-hand horn section ready to take over a conga. These days the percussion is still there, but subordinated to a more orthodox guitar-bass-drums funk.

On discs, EWF's Afro-Cuban orientation was at its most obvious in the early *Evil*, from 1973's "Head to the Sky." Since then it has never been very far from the surface, whether in the 1975 *Africano's* tight Latin pulse or the 1977 *Serpentine Fire*, whose beat is classic



White's living room proves he's a genuine mystagogue

black-Latin fusion with echoes all the way back to the habanera and W. C. Handy.

Most distinctive about their vocal sound is Philip Bailey's falsetto, which occasionally verges on super-market soul but is more often used with a good deal of originality. In the 1974 *Feelin' Blue*, a non-falsetto lead is set off by extraordinarily mellifluous, half-whispered falsetto backup singing, a technique that the group uses a good deal. In the massive 1975 hit *Rising Star*, the vocalists' pitch swoops from falsetto to good-humored bass, and for one breathtaking moment becomes a cappella chanting.

A special application of falsetto is reserved for White's many lyrics that contrast troubled earthy feelings with a spiritual response or solution. For at the heart of his, and therefore EWF's, ethos is a preoccupation with things mystical. But while these days every second r&b album seems to have a "spiritual adviser" listed alongside the horn arranger and remix engineer, EWF takes its mysticism quite seriously.

"We feel that we are being used as a tool to say certain things," White says. "Most black people walking around in the streets are very unhappy, very depressed. I truly feel myself that love is the better way, that when you can get inside and reacquaint yourself with yourself, you can make yourself a better life. I try to make a better way for them so they can face each day with a positive attitude.

"Because we are living in this jive society, we tend to relate to the beautiful things—like the universe—in a very negative manner. So in the group we draw all of our forces from the universe, and from the Creator, and from the sky. Meditation is one way, though there's other ways too."

White explained the pharaohs of the 1977 tour and the mystagogic witty cover of "All 'n' All," with a pyramid and an Abu Simbel-like temple on the front and space fantasy on the back. "The group is very heavily into Egyptology. We felt that there were many

secrets from that era that have never been totally worked out. Also that some of our spirituality and ideas relate to Egyptology.

"Our total concept is to create an illusionary effect in our public's mind. We're trying to reacquaint them with the Egyptian civilization so they can search and find out new things about themselves."

There is no necessary contradiction between spirituality and the boogying and carrying-on of Earth, Wind & Fire's live shows. A touch of vaudeville runs through religious pageantry from the medieval mystery plays to black gospel music, and the Islamic Sufi "dancing dervishes" are part of the ritual of one of the world's great mystical systems. On the other hand, put-on is an honored tradition in black music. Which is EWF, the reality or the parody?

Any doubts I may have had about their sincerity were laid to rest by a visit to White's villa on the Monterey peninsula, a private sort of place he designed himself. Along with more worldly touches like a small room containing a billiard table and a pinball machine, his home holds more than enough proof that his mystical concerns are genuine. What mystagogic-hype artist would bother to adorn the transoms above his outer doors with stained-glass pyramid motifs? Besides, anybody who has been around those who seriously practice meditation recognizes its fruits. White gives off an aura of unassuming ease and relaxed detachment—in a word, serenity. In a notable untroubled business, something out of the ordinary lies behind his remarkable tranquility.

Though Earth, Wind & Fire is the base of White's fortune, his platinum touch seems to affect the other artists he produces, something he has been doing increasingly over the past couple of years. His production company, appropriately called Kalimba, came together in a typically serendipitous way: "It fell into place at the time I was working on the 'Sun Goddess' album [1975] for Ramsey. An old friend of mine from Chicago told me about the Emotions—how they weren't working—and I heard a tape of them. I was very impressed, because they had an original sound that wasn't like anything I was hearing on the street at that time."

White's work with the Emotions produced first a gold album, the 1976 "Flowers," and then the platinum "Rejoice" in 1977. Other clients include Deniece Williams, for whom he produced the 1977 "This Is Niecey," and, more recently, D. J. Rogers and the male vocal group Pockets. In August of last year, in conjunction with Columbia, he set up a new record label, ARC (American Recording Company), which will handle EWF, Williams, Weather Report, Pockets, the Emotions, and various others of White's associates and protégés. Judging by past performance, all are in for a most rewarding time—in every way. There is, however, no truth in rumors that White has been asked to run the U.S. Treasury Department. ●

A Bedroom Not for Sleeping

by Peter Brown

Many is the night you probably lie in bed dreaming about cutting your own record. But the pro studios are way beyond your reach financially, and the record execs that could give you your big break never visit your suburb anyway. That was my situation until a little over a year ago. I was an art student living outside of Chicago, and I supported my musical habit by working as an art store clerk and a garbageman—among other odds and ends. Today, I've had four hit singles and a gold album ("Fantasy Love Affair") on TK Records, and I've performed for about a quarter of a million people, not including TV audiences. And I owe it all to my bedroom in my parents' suburban ranch house. Or more specifically, to the studio I built in it, which—since garbagemen don't exactly earn megabucks—was put together for less than the cost of a Buick.

My father is an electronics engineer, so there have always been tape recorders, microphones, and various assorted electronic gizmos around the house. I was given my first tape recorder—a Teac two-track—at age six, and I remember telling stories into it and being fascinated. Even more fascinating were my early experiences with percussion instruments—my

I supported my musical habit by working as an art store clerk and a garbageman.

mother's pots and pans at first, and eventually bongos and a cowbell. Occasionally a friend would bring over his autoharp, and we would add it to the proceedings.

Peter Brown, a former sanitation engineer, is a TK recording artist. In 1978 he was named Outstanding New Performer by Record World and Top Male R&B Vocalist by Cashbox.



The author in what used to be his bedroom

I taught myself drums on a set my parents gave me when I was thirteen, and I spent hours recording and listening to myself to develop my chops. I'd also begun to single out the drum and bass parts on records in an attempt to figure out what they were doing in relation to the other instruments.

My ideas soon outdistanced two tracks, and I discovered that by using the ECHO button I could transfer music from one track to the other—in other words, "dump" the two tracks down to one. This left the other track available for further artistic explorations. By way of example, I'd record drums on Track A and rewind the tape. Then I'd play it back on echo while recording congas on Track B. ECHO transferred the

drums on A to B, and drums and congas would end up on one track. Then I'd rewind again, press ECHO to transfer the two instruments on B to A, and simultaneously record maracas on Track A. Now I'd have three of me on tape—the drummer, the conga player, and the maraca player. Transferring A to B again and re-recording on B, I'd add a fourth instrument—maybe a triangle. By the time I was finished, I'd have an entire rhythm orchestra.

But I needed an instrument for melody. A \$650 Fender Rhodes electric piano was the answer, purchased with the money I'd made working at my father's factory. Not only did I have melodic accompaniment for my percussion experiments, but I could now explore the world of bass notes. Heaven.

At this point (I was eighteen) my goal was to make a recording that sounded like a group, not just one person. So my next purchase was a Teac 3340 four-track, which at the time cost \$1,000. I also built a black box—this can be done very inexpensively—consisting of four RCA jacks wired in series, one to correspond to each of the four tracks on my recorder. This enabled me to use the dumping process again. I would plug the three channels I wanted to dump into the black box, mix them together, send that signal out of the box, and record it on the fourth track. That left the three tracks open for recording fresh material. But even with the Rhodes and the new Teac my tapes

I could always tell when someone was in the bathroom, because the lights made my equipment hum.

sounded like rhythm experiments. I just couldn't get the realistic group sound I wanted.

Discouraged, I decided to temporarily switch career goals and enroll in the Art Institute of Chicago. (Guess who does his own album covers now?) Recording would remain a hobby, albeit a slightly obsessive one, but I'd simply have to abandon the idea of ever going professional. Well, that turned out to be easier said than done. I just couldn't stop fiddling around in my bedroom.

What I needed to lift me out of the doldrums and save my tapes was an Arp Odyssey synthesizer. I bought it when I was twenty, and it set me back about \$1,200. This just about depleted the money I had saved from various jobs, but it turned out to be worth the gamble. Now I could add horns, strings, bass, and drums. I could write countermelodies around my rhythms with newly found dexterity. And I faced the fact that I was totally smitten by the home-recording bug.

So here I was in my 10-by-12 foot bedroom with the Teac four-track, a Pioneer power amp, four speakers, an old ElectroVoice microphone, and a borrowed Fender reverb unit. Covering one wall were shelves

that housed all my equipment. Against another was my convertible sofa, which, when opened, covered an ugly portion of the room. And percussion instruments were scattered all over the place. Shortly after I purchased the Odyssey, I decided to play a&r man. I listened to my finished product, the result of some fifteen years of unconscious preparation, and realized it was time to get serious. My parents weren't quite sure I could sustain myself on music, but I decided to send a demo tape to TK producer Cory Wade anyway. After all, nothing ventured, nothing gained.

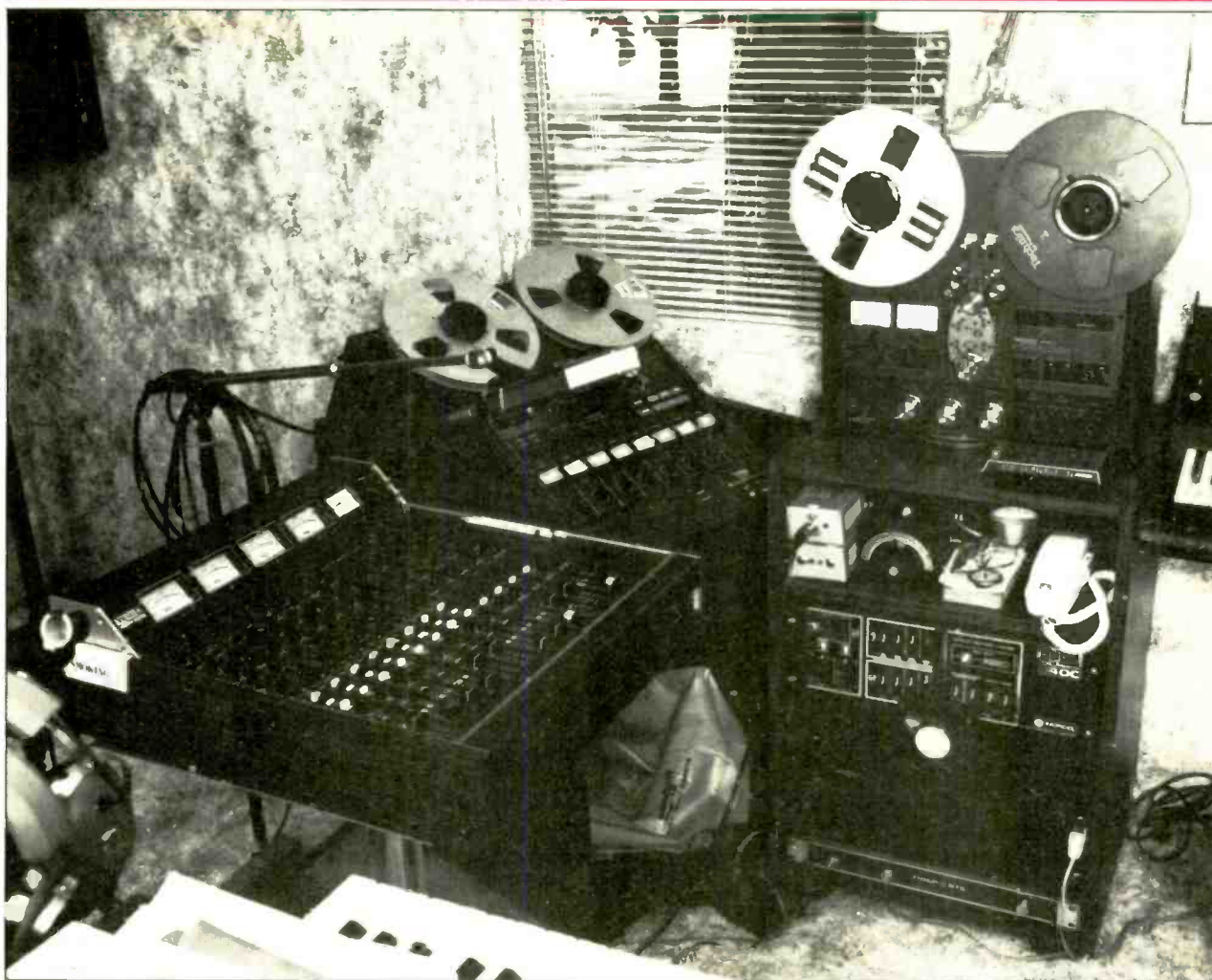
Surprise! He felt the tape needed polishing, but he also thought I showed great promise. I dropped out of school and added some new tracks—saxophone played by a friend, and violin and bass simulated by the synthesizer. This time, Cory thought I was ready.

My original four-track demo of *Do You Wanna Get Funky with Me?* turned out so well that it was transferred to a twenty-four-track machine and used for the basic tracks of the final record. Four months after I started working on *Funky*, the song was on its way up the charts. Then it went gold along with its album, "Fantasy Love Affair." And I still can't believe it.

A little more money was now available. Rather than spend it on creature comforts, however, I took over another, larger bedroom (12 by 15 feet) in our house that I had been eyeing for some time. I had learned a lot in that first "studio," particularly since I'd had to work in what you might call a less-than-ideal-for-recording environment. Our dog would bark at buzzing doorbells, telephones would ring, low-flying planes not only shook the house, but wreaked havoc on my tapes. I could always tell when someone was in the bathroom, because the lights made my equipment hum. I declared the bathroom off limits during recording. (My parents put up with inconveniences such as this, and not once did they complain about the noise coming from my bedroom at all hours of the night.)

The first thing I did in the new room was increase the electrical outlets from six to eighteen—and rewire the bathroom lights to a different circuit. Then I removed everything, leaving only bare walls and floor. I paneled the two walls common to other rooms with unfinished cedar and carpeted the two outside walls. This helped to absorb the sound—I wouldn't disturb the neighbors, they wouldn't disturb me. For the same reason, I replaced the single-pane windows with double panes and carpeted the floor. The air-conditioning/heating vent was already pretty quiet, so there was no problem there.

Next came the new equipment: a Teac 80-8 eight-track recorder with built-in DBX noise reduction, a Teac Model 5 mixing board, a Yamaha P-2200 power amplifier, and a Crown D-75 stereo amp to power the headphones. I use a Tapco 4400 stereo reverb unit and a Technics 1500 half-track tape deck for mixdown. My trusty old Teac 3340, which sits between the JBL 4311 monitors, is now used primarily for making copies.



Top: the Teac Model 5 mixing board, Teac 80-8 open reel and Technics 1500 half-track deck, which sits atop the Tapco 4400 stereo reverb and the Crown D-75 stereo amp. Above left: the Teac 3340 between the JBL 4311 monitors. Right: Microphones include Sennheiser 441s and 421s and Electrovoice DS-35s



The Hohner clavinet, Fender Rhodes (topped by the Arp Omni), and Teac mix desk surround the artist/engineer's swivel stool

Microphones include Sennheiser 441s and 421s and ElectroVoice DS-35s.

In addition to the Fender Rhodes and the Arp Odyssey, I've got a Hohner clavinet, a Yamaha CS-60 polyphonic synthesizer, and an Arp Omni. Everything is within arms' length of a centrally located stool. (In the old studio, in order to punch in a short segment of piano, I'd have to hit RECORD, leap across the room, try to play the correct chord at the correct time, and then leap back to push STOP in order to avoid erasing the rest of the track.) There is no drum booth or isolated area, but I don't really need one since I record everything separately, one track at a time.

I usually begin a demo on the 80-8 with a bass drum track, played on the Odyssey. The synthesizer keeps exact rhythm, which makes the overdubbing process much easier. Next I lay down electric piano, which, since it serves as the main reference point for additional orchestration, must be a clear arrangement of the song. The rest can be added in just about any order. To keep the song's groove going, I generally do basic rhythm first: bass drum, piano, snare, high-hat, guitar, and bass. Then I do a stereo dump of those six tracks and record new material over them. This process can be continued to add as many tracks as you want (I've done up to twenty-four on both the four-track and the eight-track), though I try to stop before I begin to lose clarity.

I try to make my demos as close as possible to the real thing. Occasionally I'll even do string arrangements on the Omni, and sometimes I'll have friends come over to do the horn parts. This way, when I go into a commercial studio I already have nearly finished versions of each song. I even prepare track sheets, so the engineer will know which instrument goes on which track. And I always write out a lead-

sheet for each song, both for copyright filing and to help the people who transcribe my material for sheet music.

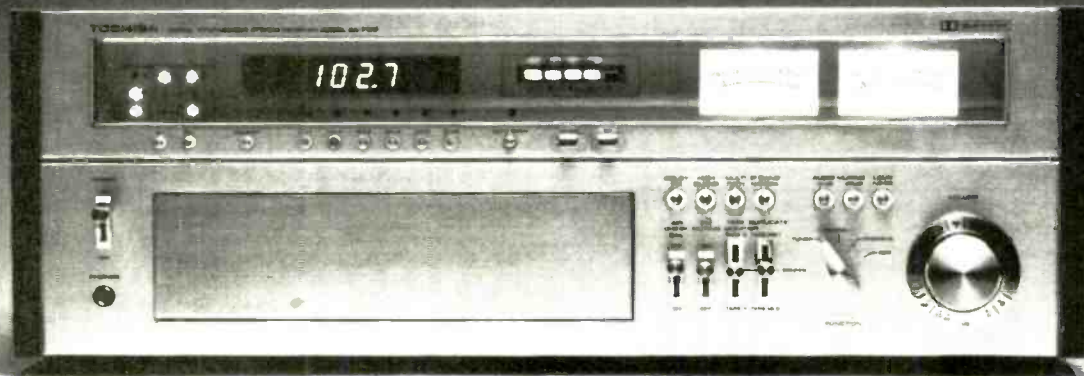
Having a home studio has been a godsend for me—both before and during my career as a professional recording artist. There is no pressure: You are free to create and experiment on your own without hassles from engineers, assistant engineers, producers, and a studio owner who decides to conduct a guided tour of the place while you're using it. There is no danger of having to sell your car in order to pay for the extra studio time it's taking to finish a tape. You can record new ideas and inspirations instantaneously, at any time of the day or night. I recently finished up a demo of *Funk Town* (from my forthcoming LP) at 2

Put no limits on yourself, and you will have none.

a.m. Though it's a driving, high-energy number, my new studio is so well isolated that my parents slept through it undisturbed, just twenty feet down the hall. This is the total freedom that allows the artist/producer/engineer to create up to his or her full potential.

Admittedly, my success story is unique. Had *Funky, Dance with Me*, and the other tunes I worked on in my bedroom not taken off, I'd still be doing odd jobs to support my recording habit. But it does prove that, even though your equipment may be limited, you are not. When you've developed your talents to the point where you're ready to present yourself to the world, there will be someone out there waiting to help you go as far as you can. Just remember: Put no limits on yourself, and you will have none. And don't dream in your bedroom. Build a studio in it. ●

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Critics' Choice '78



ALBUMS

Album of the Year

- 1st place Warren Zevon: *Excitable Boy* (Asylum)
- 2nd place Elvis Costello: *This Year's Model* (Columbia)
- 3rd place Rolling Stones: *Some Girls* (Rolling Stones/Atlantic)

Best Pop Album

- 1st Nick Lowe: *Pure Pop for Now People* (Columbia)
- 2nd Willie Nelson: *Stardust* (Columbia)
- 3rd Gerry Rafferty: *City to City* (United Artists)

Best Rock & Roll Album

- 1st Rolling Stones: *Some Girls* (Rolling Stones/Atlantic)
- 2nd Elvis Costello: *This Year's Model* (Columbia)
- 3rd The Who: *Who Are You?* (MCA)

Best Country Album

- 1st Willie Nelson: *Stardust* (Columbia)
- 2nd Jerry Lee Lewis: *Keeps Rockin'* (Mercury)
- 3rd Marshall Chapman: *Jaded Virgin* (Epic)

Best R&B Album

- 1st The Staples: *Unlock Your Mind* (Warner Bros.)
- 2nd Village People: *Macho Man* (Casablanca)
- 3rd Johnny Guitar Watson: *Funk Beyond the Call of Duty* (DJM)

Best Fusion/Latin Album

- 1st Egberto Gismonti: *Sol do meio Dia* (ECM)
- 2nd Eddie Palmieri: *Lucumi Macumba Voodoo* (Epic)

Best Contemporary Jazz Album

- 1st Weather Report: *Mr. Gone* (ARC/Columbia)
- 2nd Keith Jarrett: *Bop-Be* (ABC/Impulse)

Best Classic Jazz Album

- 1st Joe Venuti: *Violin Jazz* (Yazoo)
- 2nd Teddi King: *Lovers & Losers* (Audiophile)

Best Off-the-Beaten Path Albums
(LPs that are highly unlikely to race up the charts but deserve to outlive what will)

- Little Walter: *Blue and Lonesome* (Le Roi du Blues). N.T.
- Dead Boys: *We Have Come for Your Children* (Sire). T.G.
- Ken Bloom: *Ken Bloom* (Flying Fish). T.E.
- Wire: *Pink Flag* (Capitol). K.T.
- Rank Strangers: *Rank Strangers* (Pacific Arts). S.S.
- Inez Andrews: *Chapter Five* (ABC/ Songbird). K.E.
- Nimrod Workman & Phyllis Boyens: *Passing Through the Garden* (June Appal). J.S.R.
- Teddi King: *Lovers & Losers* (Audiophile). J.S.W.
- Oliver Lake: *Life Dance of Is* (Novus). D.H.
- Carol Douglas: *Burnin'* (Midsong). S.E.

NEW ARTISTS

Most Promising New Pop Vocalist

- 1st place** Nick Lowe for "Pure Pop for Now People" (Columbia)
2nd place Moon Martin for "Shots from a Cold Nightmare" (Capitol)
3rd place Carlene Carter for "Carlene Carter" (Warner Bros.)

Most Promising New Jazz Vocalist or Instrumentalist

- Scott Hamilton** for "Scott Hamilton" (Concord Jazz)

Most Promising New Pop Group

- 1st** The Cars for "The Cars" (Elektra)
2nd Jules & the Polar Bears for "Got No Breeding" (Columbia)

Most Promising New Jazz Group

- 1st** Pat Metheny Group for "Pat Metheny Group" (ECM)
2nd Double Image for "Double Image" (Inner City)



Nick Lowe—first place in three categories

BEHIND THE SCENES

Best Pop Producer

- 1st** Nick Lowe for Elvis Costello's "This Year's Model" (Columbia)
2nd Roy Thomas Baker for "The Cars" (Elektra)

Best Jazz Producer

- 1st** Manfred Eicher for the entire ECM series (ECM)
2nd Michael Cuscuna for Woody Shaw's "Rosewood" (Columbia)

NOT-SO-NEW ARTISTS

Best Pop Comeback

- 1st place** Randy Newman for "Little Criminals" (Warner Bros.)
2nd place Ray Charles for "True to Life" (Atlantic)

Best Continuous Pop Comeback (For an artist who has consistently released quality product over the past ten years)

- 1st** Rolling Stones for "Some Girls" (Rolling Stones/Atlantic)
First album, "The Rolling Stones," released in 1964 on London records
2nd The Kinks for "Misfits" (Arista)
First album, "You Really Got Me," released in 1964 on Reprise
3rd Van Morrison for "Wavelength" (Warner Bros.)
First album as a soloist, "Blowin' Your Mind," released in 1967 on Bang Records

Best Jazz Comeback

- 1st** Doc Cheatham for "Doc & Sammy" (Sackville)
2nd Snooky Young for "Snooky & Marshal's Album" (Concord Jazz)

Best Continuous Jazz Comeback

- 1st** Lee Konitz for "Lee Konitz Quintet" (Chiaroscuro)
First album as a leader, "Marshmallow," released in 1949 on Prestige
2nd Sonny Rollins for "Don't Stop the Carnival" (Milestone)
First album as a leader, "The Sonny Rollins Quartet," released in 1951 on Prestige



Randy Newman—pop comeback of the year

- 3rd** Norman Granz for "Zoot Sims Meets Jimmy Rowles" (Pablo)

Best Jazz Composer/Arranger

- 1st** Josef Zawinul for "Mr. Gone" (Columbia)
2nd Keith Jarrett for "Bop-Be" (ABC/Impulse)

Best Songwriter

- 1st** Warren Zevon for "Excitable Boy" (Asylum)
2nd Randy Newman for "Little Criminals" (Warner Bros.)

ONSTAGE

Best Live Pop Performance

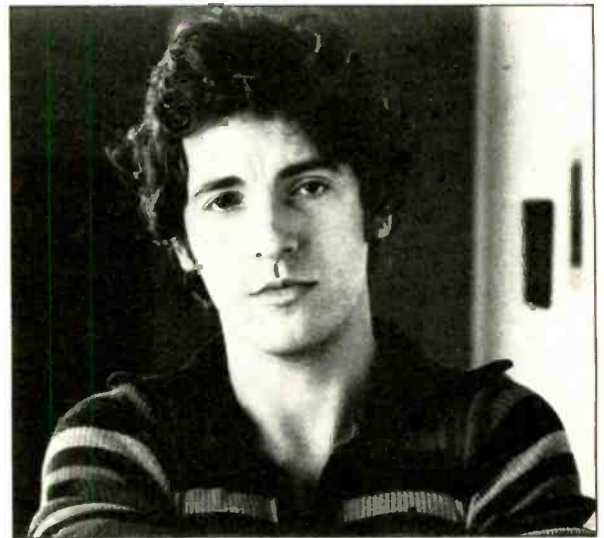
1st place Bruce Springsteen at the L.A. Forum (August '78) and at the Palladium in New York (September '78)

2nd place Nick Lowe and Rockpile with Dave Edmunds at the Whisky in Los Angeles (July '78)

Best Live Jazz Performance

1st Chick Corea with Herbie Hancock at Carnegie Hall in New York (February '78)

2nd George Russell Orchestra at the Village Vanguard in New York (March '78)



Springsteen—best live pop performer

SPECIAL AWARDS

The Purple Heart Award
for the Record Company that
Took the Most Chances,
With or Without Success

- 1st prize Warner Bros.** for its distribution of ECM (contemporary jazz) and Sire (punk), and for releasing *Short People* as a single
- 2nd prize Fantasy/Prestige/Milestone** for reactivating the Galaxy label
- 3rd prize Epic** for giving Eddie Palmieri his head on "Lucumi Macumba Voodoo"
- 4th prize All independent jazz labels**

The Matching Luggage Award
for the Record Company That
Took the Least Chances

RSO for Bee Gees on record, Bee Gees on film, Bee Gees on record and film, a little G that sounds just like a Bee Gee, and a female non-Gee produced by a Gee whose records, therefore, sound like...

The Neon Sculpture Award
for the Most Incredible
All-Media Promo Blitz

- 1st "Sgt. Pepper's Lonely Hearts Club Band"** RSO (Unanimous decision)
- 2nd Kiss solo LPs** Casablanca (Unanimous decision, with one exception)

The Emperor's Clothes Award
for the Most Ephemeral Pop Trend of 1978

- 1st Punk**, variously described as "nasal safety pins," "punk academia," and "the Sex Pistols, etc."
- 2nd Rock & Roll Movies**

The Emperor's Spacesuit Award
for the Most Ephemeral Pop Trend of 1979

In no particular order:

- "Disco jazz" (D.H.)
- "Picture discs" (S.E.) and "lollipop-colored vinyl" (J.S.R.)
- "Any dance named after an animal" (N.T.)
- "Buddy Holly covers" (S.S.)
- "Roller skates" (T.E.)
- "Andy Gibb and '60s nostalgia" (K.T.)
- "Fleetwood Mac, Linda Ronstadt, and the Bee Gees (I can dream, can't I?)" (T.G.)

The P.T. Barnum Award
for the Hype of the Year

In no particular order:

- "Dolly Parton, Waylon Jennings, and Steve Martin" (N.T.)
- "Sgt. Pepper's Lonely Hearts Club Band, Andy Gibb, and Olivia Newton-John" (K.T.)
- "Bob Dylan, The Rolling Stones, and Meat Loaf" (T.G.)
- "I never notice hype" (J.S.R.)
- "Elvis Costello and Warren Zevon" (T.E.)
- "Gene Simmons, Ace Frehley, Paul Stanley" (S.S.)
- "My mail" (S.E.)

Recommended-for-Instant-Cut-Out-Bin Award

- 1st "Sgt. Pepper's Lonely Heart's Club Band"** (RSO)
- 2nd "White Mansions"** (A&M)

Participating Critics:

JOHN STORM ROBERTS	SUSAN ELLIOTT
SAM SUTHERLAND	KEN EMERSON
NICK TOSCHES	TODD EVERETT
KEN TUCKER	TOBY GOLDSTEIN
JOHN S. WILSON	DON HECKMAN

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The AIWA AD-6900U. Super specs and sound quality we defy any reel-to-reel to beat. Plus a lot of extras.

For openers, the AD-6900U delivers a frequency response of 20 to 20,000 Hz and an S/N Ratio of 68 dB using FeCr tape with Dolby* on. And only 0.04% WOW and FLUTTER (WRMS). Great numbers, but there's more.

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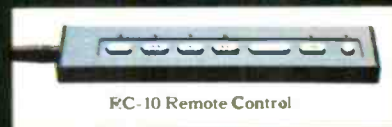
in 40C Hz and 8 kHz oscillators, the AD-6900U offers the most precise test recording possible, so you know exactly what to expect before you record. Coupled with AIWA's exclusive combination 3-head V-cut design, you can expect absolute optimum results in recording, playback and test.

The AD-6900U features Full Logic operation and exclusive Double Needle Meters.

Full logic feather-touch push button controls and dual motor operation make the going easy, and the feather-touch operation with Cue and Review can't be found on any other cassette deck. And no other reel-to-reel or cassette deck offers Double Needle Meters that combine both VU and Peak functions on each meter.

Plus a full array of extras, including AIWA's exclusive SYNCHRO-RECORD.

When you use the AD-6900U with AIWA's AP-2200 turntable, Synchro-Record activates recording automatically when the record is cued, and stops when the tone arm lifts. Mic/line mixing, oil-damped cassette ejection, Double-Dolby Noise Reduction with fully adjustable calibration, optional RC-10 remote con-



RC-10 Remote Control

trol, low profile design and your choice of rich wood side panels or tough rack-mount handles make this deck an unparalleled value.

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The 12 Best Pop Album Covers of 1978

by Jean Marcellino

Album covers, many of which are produced by top graphic artists, represent some of the finest commercial art today. As such, choosing "the best" of them has not been easy. All were selected from BACKBEAT's record library, so any company having difficulty with its press mailing list may have been excluded from consideration.

I am an art director, so my criteria have been strictly aesthetic. I have not taken into account such things as market viability or the appropriateness of a jacket to its musical content or to its audience. What I did look for was freshness, impact, and overall artistry. We are bombarded by countless printed images daily, and an effective piece of art must, in some way, rise above its competitors and jolt us from our expectations. As to "artistry," anyone's perception of it is their own, and all my choices are completely subjective. Let me just say that I wish any one of these covers was in my own portfolio.

In filtering through the five or six hundred candidates several things occurred to me. For one, I think illus-

Jean Marcellino, BACKBEAT's first art director, has designed album covers for many labels and is currently an art director for Arista records.

trated jackets have more appeal right now than photographic ones. These trends swing like a pendulum, and I say this from sheer intuition. For another, the CBS art department stood out, once again, as a leader in overall graphic excellence. Credit is due to longtime art director John Berg, who, at one time or another, has employed and inspired many of the winners, both CBS and otherwise.

This project has been great fun. Congratulations to all of those "visual communicators" who contributed their efforts to these very beautiful packages.



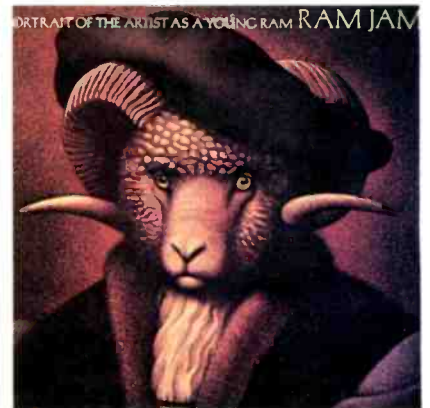
The Rolling Stones, "Some Girls" (Rolling Stones/Atlantic). Cover concept and design by Peter Corriston.

What is there to say? It was a classic from the day of release. Whimsical, fun, stands out in a crowd.



Tys Van Leer, "Nice to Have Met You" (Columbia). Art direction by Paula Scher, illustration by Richard Hess.

The bizarre image grabs you, while the beautifully executed art draws you in for a closer look. Scher's art direction, as always, is gently complementary to the illustration.



Ram Jam, "Portrait of the Artist as a Young Ram" (Epic). Concept and design by Elena Pavlov, art by David Wilcox.

The witty title and mock-Rembrandt sobriety combine to make a highly memorable jacket. David Wilcox's style bespeaks the very essence of 1978.



"Head East" (A&M). Art direction by Roland Young, design by Michael Fink/Rod Dyer, Inc.

This is reminiscent of the many slick concept packages produced in the affluent Sixties.



Maynard Ferguson, "Carnival" (Columbia). Design by Paula Scher, art by Milton Glaser.

Milton Glaser's frivolous squiggles dance as merrily on the back cover as on the front. The unobtrusive typography is tastefully done.



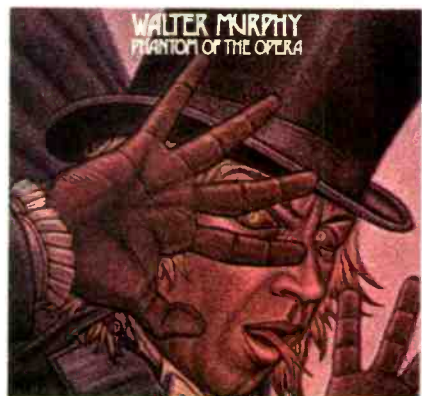
"Fotomaker" (Atlantic). Art direction by Dino Danelli, photo by Mick Rock. *Many people, particular women, find this captivating photograph offensive. But, as graphic trendsetter George Lois has taught us, offensiveness can be a strong asset.*



Oregon, "Out of the Woods" (Elektra). Art direction and design by John Lee and Ron Coro, illustration by David Wilcox. *The instruments have such personality, one feels intimately acquainted on sight. There are charming details that can't be seen here. Again, David Wilcox.*



"Flame" (RCA). Art direction by Lynn Goldsmith, logo design by Kenneth Kneitel, painting by Jean-Paul Goude. *Here is a lady we'll never forget. Convincing execution renders this cover a certain attention-holder. It would be interesting to know how this image was dreamed up and prepared.*



Walter Murphy, **"Phantom of the Opera"** (Private Stock). Design by J. Lee, creative direction by Jim Massey, art direction by Neil Terk, illustration by Ed Soyka. *This phantom is murky and foreboding, with his forked tongue and haunted eyes. After all of the slick airbrush work in recent years, it's a pleasure to see coarsely textured illustration.*



"Dragon" (Portrait). Design by Nancy Donald and Tom Steele, illustration by John Van Hamersveld. *Though at first somewhat startling, this jacket has a kind of nonthreatening impact. It is ultimately pleasant, solid graphic design.*



"Crimson Tide" (Capitol). Marilyn Shimokochi. *Well-executed airbrush creates a startling illusion of depth by the simplest possible means. One would have to work hard to overlook it.*



Frank Zappa, **"Studio Tan"** (DiscReet). Art direction by John Cabalka, design by Vartan/Dyer, illustration by Gary Panter. *This illustration is totally whack-o. There have been many comic style covers this year, but most have been in a hard-edged pop vein that's losing (or has lost) its punch. This one's not in the least bit "cute." Just good.*

The A-800: A TEAC with features you can't live without at a price you can live with.

The TEAC A-800 gives you one of the best, most affordable combinations of precision, muscle and good looks around. It's a three head, two motor, dual capstan, solenoid-operated cassette deck that lists for less than \$800.*

The A-800 transport has a computer heritage... heavy, rock-steady, reliable. The closed-loop dual capstan system isolates the tape between the capstans to provide optimum tape-to-head contact. Result: better frequency response, fewer dropouts. An



tape between the capstans to provide optimum tape-to-head contact. Result: better frequency response, fewer dropouts. An

ultra-stable motor drives the capstans while all transport functions are operated through feather-touch solenoid switching both on the deck and with the optional RC-90 Remote Control.

The A-800 uses a combined record/playback head in which both elements are incorporated into a single housing. What's more, the playback head is a unique "Delta" design which incorporates both magnetic and non-magnetic ferrite materials which assures minimum feedthrough from the record head and eliminates low

frequency contour effects.

In addition to its built-in Dolby, the A-800 also accepts an optional dbx® Type II for wider dynamic range and up to 80 dB S/N. This optional dbx interface—a TEAC exclusive—lets you improve the overall signal-to-noise performance by up to 30 dB. It's got to be heard to be believed!



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MODEL A-800

LINE/OUT

TAPE COUNTER
A B C

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Input Output

Instruments and Accessories

PAIA 1550 Stringz 'n' Thingz. PAIA is an Oklahoma-based concern that specializes in musical instrument kits. We reviewed their Programmable Drum Set a year ago this month and found it fun to build, though it ultimately sounded more like a Rhythm Ace than a drummer. From its appearance, the Model 1550 Stringz 'n' Thingz is somewhat more complicated to build, and its sound is a bit problematic as well.

If the name of this gadget suggests a string synthesizer to you, forget it. Not only does it not sound much like a string section, but the timbres of the "Thingz"—whatever they are supposed to be—are not close imitations of any familiar acoustic instruments. Yet they are not without interest. A sound vaguely reminiscent of a clavinet comes from the PIANO output jack, while the signal from the MIX output resembles the tone of a pedal harmonium (at a great distance when the chorus effect is used).

The control panel, to the left of the keyboard, is arranged in three rows. The top row contains five 1/4-inch phone jacks for connection to external equipment. The first jack, marked GATE, can serve to make the 1550 a triggering device for an



Stringz 'n' Thingz

external synthesizer. The MIX output offers the sum signals from the strings and piano sections, and the PIANO jack offers the output of the piano section only; therefore, you can have two simultaneous outputs of different sound quality. The last two are SUSTAIN jacks, for strings and piano, respectively, which can be connected to external foot pedals or other devices that will determine the sustain duration of either voice.

The second row on the control panel

contains five pots, the first of which, marked TUNE, can alter the pitch of the keyboard through a continuous range of one octave. The next two, MODULATION (DEPTH and RATE), control the amount of signal subjected to the built-in vibrato/chorusing effect and the speed of the vibrato. SUSTAIN pots, which govern the respective decay times of the STRINGS and PIANO voices, are the final two.

The last control row starts with a SOLO/MIX pot that adjusts the blend of the two voices. Next to that the string control area begins with a toggle switch that determines where the keyboard split (the note below which "cellos" join the "violins") occurs. The switch positions are an octave apart. Two more pots control the blend of low and high string sounds with respect to the split point. Finally, there is a POWER ON/OFF switch in the lower right of the panel.

The prewired Model 1550 we received for review works very well and is easy to operate. The whole machine is packed in a sturdy, lightweight case that can easily be opened to expose the circuit boards. The 37-note keyboard has relatively good action, and the whole package is compact and very straightforward in design.

If you are into building kits, the 1550 comes with an 83-page instruction manual, detailed explanations, and the designer's enthusiasm. Considering the sensible electronic and physical design, the carefully laid out diagrams, and the fact that the device is so easy to use, I think it's too bad that the sounds aren't a little hipper. I have the feeling that PAIA tends to forget that, while their customers may be electronics buffs, they're also musicians with a wide variety of sounds already at their disposal. It would have made sense, for example, to listen closely to other string synthesizers (if not to real strings) and try to emulate or improve upon their sounds. And a control by which the attack could be varied to simulate different styles of bowing would have been welcome. But in the end—if you have the time to build it—the Model 1550 kit can offer an enjoyable challenge and a worthwhile result. Price: \$600 wired, \$295 as a kit.

CIRCLE 121 ON PAGE 99

FRED MILLER

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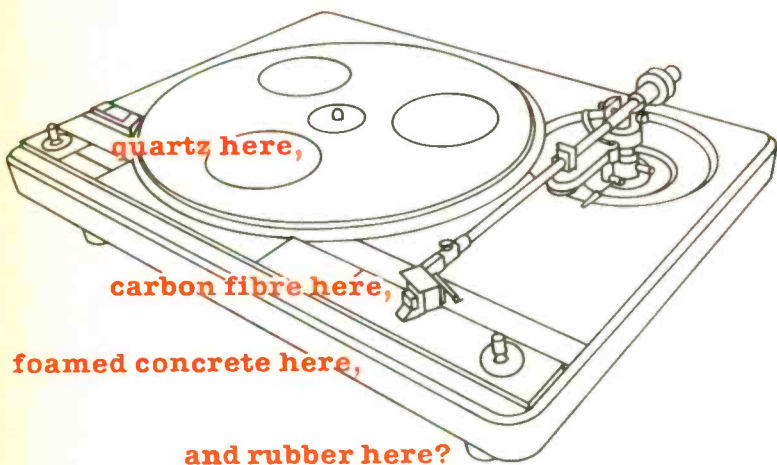
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CIRCLE 28 ON PAGE 99

What do you get when you put



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ADC is in the business of building breakthroughs.

First, we brought you the innovation of the low mass cartridge. Then the remarkable computerized Accutrac® turntables. Next, the State-of-the-Art Low Mass tonearms.

And now, our engineers have combined the latest advancements of tonearm technology and turntable construction to reduce mass and resonance to new lows.

Result: new benchmarks of high performance.

Finally, the integration of a carbon fibre design tonearm. The famous ADC LMF Carbon Fibre tonearm was the model for the sleek black anodized aluminum

tonearm found on the ADC 1700DD. In fact, until now you had to make a separate investment in an ADC tonearm to achieve this level of performance.

A level of performance never before available on an integrated turntable.

It is statically balanced with a lead-filled decoupled counterweight, and the headshell is molded carbon fibre, long known for its low mass to high tensile strength ratio.

Furthermore, the headshell is connected to the arm with gold plated computer terminal pins. And the main bearing cradle is made of sintered aluminum. The pivot system utilizes micron polished instrument bearings which are hand picked and matched perfectly to both the inner and outer races, for virtually frictionless movement.

The viscous cueing is a gentle 4mm/sec., and the tempered spring anti-skate adjustment is infinitely variable to 3.5 grams.

The design, the materials and the details interact to provide incomparable performance for a tonearm on an integrated turntable system.

In fact, the tonearm alone is worth the price of an ADC 1700DD.

Finally, resonance conquered. The technical know-how that conquered the problems of the tonearm mass, also conquered the problems of turntable resonance.

The ADC 1700DD reduces resonance to levels so negligible they are virtually nonexistent.

The achievement lies in the innovative construction formula for the turntable base that incorporates the latest advancements from European engineers.

The base is constructed with two dissimilar materials that are resonance-cancelling. First, the outer frame of the base is molded, and then a composition of foamed concrete is injected to absorb and neutralize resonance and feedback.

LOW RESONANCE

Beyond even this foamed concrete anti-resonance breakthrough, the base is isolated by energy absorbing, resonance-tuned, rubber suspension feet.

This is as close as technology has ever come to defying the physical laws of resonance.

The motor in the ADC 1700DD is also present standard of excellence: Direct Drive Quartz Phase-Locked Loop. The quartz is used in the reference oscillator of the motor.

An electronic phase comparator constantly monitors any variance in the speed, making instantaneous corrections. Even when out of the Quartz-Locked mode, the optical scanning system keeps drift at below 0.2%.

In fact, to check the speed at a glance, we've engineered the 1700DD with a pulsed LED strobe display for your convenience.

Low-mass. Low-resonance. High performance.

What is the result of all these breakthroughs? Pure pleasure.

The pleasure of enjoying your favorite music with less distortion and coloration than you may have ever experienced before.

Now you can truly appreciate the integrity of the original recording.

Our engineers have reduced record wear and music distortion to a point where rumble is -70dB Din B, and Wow and flutter less than .03% WRMS.

In the history of audio technology, significant breakthroughs have been made over the past four years with the development of Quartz Lock Direct Drive, carbon fibre tonearm design, foamed concrete anti-resonance construction. And now, ADC is the first to bring them all together in the 1700DD. We invite you to a demonstration of this and the other remarkable ADC turntables at your nearest franchised ADC dealer.

Or, if you'd like, write for further information to: ADC Professional Products, a division of BSR Consumer Products Group, Route 303, Blauvelt, N.Y. 10913.

Low-mass. Low-resonance. We think you'll be highly interested.

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Records

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DON HECKMAN
STEPHEN HOLDEN

JOHN STORM ROBERTS
SAM SUTHERLAND
NICK TOSCHES
KEN TUCKER
JOHN S. WILSON

Billy Joel, Rock Star

by Susan Elliott

Billy Joel: 52nd Street. Phil Ramone, producer. Columbia FC 35609, \$8.98. Tape: •• FCT 35609. • FCA 35609, \$8.98.

Just about a year ago, Billy Joel was standing on the brink of commercial success. Prior to that time he had released three albums for Columbia—"Piano Man," "Streetlife Serenade," and "Turnstiles," but only the first received any substantial attention in the marketplace. In the years that followed he had fallen into relative obscurity, supporting himself with a nonstop touring schedule and the sporadic LP sales generated by a small but rabid cult following.

The release of "The Stranger," of course, changed all that, and Joel is now securely within the platinum-sales winners' circle. His new album, "52nd Street," is already No. 1 on the pop charts (its predecessor is still hanging in there too), and two of its singles—*Big Shot* and *My Life*—are getting more than ample exposure over the airwaves.

That said, how does "52nd Street" sound? In a word, seasoned. There are a number of factors at play on this album, all of which seem to stem from Joel's own sense of artistic confidence. With that has come a new freedom of musical exploration, which, combined with the unshakable craft of producer Phil Ramone, has yielded a creative richness of the most thoroughly realized kind.

From an instrumental standpoint, Joel

seems to be making a conscious effort to expand his rock framework. Specific instances include Freddie Hubbard's jazz trumpet solo on *Zanzibar*, and the Latin flavor of *Rosalinda's Eyes*, achieved through Mike Mainieri's marimba, Steve Khan's acoustic guitar, and Ralph MacDonald's percussion in conjunction with Liberty DeVitto's drumming. Anchoring these new elements are Joel's omnipresent and outrageously versatile keyboards, ably matched by the playing of his band of five years: Doug Stegmeyer on bass, DeVitto on drums, and Richie Cannata on reeds and organ. As on "The Stranger," Joel shares the instrumental limelight with his band, his piano serving as the focal point on only about half of the cuts. His ability to turn that instrument into a rhythm section's strongest anchor (*Zanzibar*) and the next minute sound like a self-contained chamber orchestra (*Honesty*) continues to be one of the most humbling aural experiences for all pianists—amateur and professional.

The material on "52nd Street" is a typical Joel potpourri, with this singer/songwriter emerging once again as one of the few whose output can be covered by any number of stylistically diverse artists. There are three ballads—*Honesty*, *Until the Night*, and *Rosalinda's Eyes*—and each seems to come from a different musical place. The third draws its Latin character less from the melody than

from the chord structure and superb head arrangement. The first, though certainly the most contemporary, has a chorus melody straight out of the classical archives. Initially, his claim that he writes his melodies first seems to follow. But the lyric fits so beautifully and makes so much sense that it seems an impossible afterthought. Like *She's Always a Woman* and *Just the Way You Are*, *Honesty* reveals a capacity for rare insight and perception, not to mention for outright sincerity of delivery. Its arrangement is appropriately spare, with an incredibly rich, "fat"-sounding piano surrounded by bass, drums, and very light strings.

Until the Night, on the other hand, is one of those full-blown production numbers that builds and builds until you could swear your speakers were breaking up. This one has everything: horns, chimes, ratchets, castanets, strings—you name it. Its harmonic structure is classic in that the verse pushes and teases along until the chorus has simply got to happen—a "release" in the true sense of the word. Neither the verse's nor the chorus' melody is earthshaking (the former is oddly reminiscent of the Shangri-Las' *Leader of the Pack*), but, thanks to the harmonic rhythm of the total package, they work handsomely together. Joel pushes his voice to the depths—and then some—of its range, and its resultant Righteous Brothers quality is underlined by Robert Friedman's arrangement. In all, a very odd Billy Joel song.

More typical is the album's opener, *Big Shot*, whose lyric combines elements of mafioso humor with references to contemporary New York City chic. Supporting that is a kind of mean-rock, wiry guitar sound that chugs along nastily under Joel's characteristic punk kid, spit-it-out



Joel—rocking hard, thinking deep

delivery. That Big Shot, whoever she may be, turns up again on *Stiletto*. The dark alleyway setting is painted by Cannata's sax, finger snaps, and rhythmically concise low-register piano rumblings. The lyric—"She cuts you out, she cuts you down, she carves up your life"—is suitably thrashed about musically, with further commentary coming in the instrumental bridge from Joel's stride piano bass and some tearing, ripping sax and horn riffs.

My Life, similar in subject matter to *Movin' Out* (from "The Stranger"), has one of the catchiest instrumental hooks you'll ever hear. Though the message is basically "leave me alone," this time it appears to come more from strength than bitterness. Lots of phasing, backup voices, and typical deceptive cadences give the song a kind of bouncy, happy vitality.

Zanzibar at first sounds almost like a cabaret piece, but then moves into a rock bridge and eventually into that jazz instrumental, steadfastly refusing to be categorized as an anything number. Less interesting, and for that reason easier to tag, is *Half a Mile Away*. From the horn-riff opener to the mile-long list of background vocal credits, you've heard this quasi-disco business before. You can't dance to it, though, since there is a ritard at the verse's end that sets up the hook. The reward is strictly in the listening—even the most well worn forms work when they're done with imagination.

Ramone remarked that Joel was "on a high roll" when they recorded "The Stranger" together, but to these ears "52nd Street" sounds even better. That must put him somewhere in the vicinity of the ionosphere.

Roy Acuff: Greatest Hits, Vol. 1. Wesley Rose & Ronnie Gant, producers. *Elektra* 9E 302, \$11.98. *Tape:* ●● TCS 302, ●● ET8 302, \$11.98.

The title of this album is a bit misleading. Only a few of the songs here were hits, and Roy Acuff hasn't had a Top 10 country hit for more than thirty years. In any case, this is a two-record collection of new versions of songs that Acuff originally cut for other labels. The material dates as far back as his first session, in 1936 (*The Great Speckled Bird* and *Wabash Cannonball*), and progresses into the mid-Seventies with the mildly successful *Back in the Country*. It would have been nice if the selections had been arranged in a chronological flow; but that, I guess, is too much to hope for.



Roy Acuff

It's easy to come down on Acuff. Among the inflated egos of the country-music establishment, he is a veritable blimp, and his paranoid piety is monstrous. With "Greatest Hits, Vol. 1," however, he has given us some of the most listenable and, yes, respectable country material you'll hear these days. The music is simple, but far more formidable than the usual Nashville schmalz. And, while the later cuts are as silly as their singer, the old killers like *The Great Speckled Bird* and *The Wreck on the Highway* hold their own as some of the best, most powerful songs ever written. And, for all of us who think that Willie Nelson wrote *Blue Eyes Crying in the Rain*, Acuff reminds us that he was singing the same song back in 1945. So there.

N.T.

Elton John: A Single Man. Elton John & Clive Franks, producers. *MCA* 3065, \$7.98. *Tape:* ●● MCAC 3065, ●● MCAT 3065, \$7.98.

Zwol. Roger Cook, Ralph Murphy, & Walter Zwol, producers. *EMI America* SW 17005, \$7.98. *Tape:* ●● 4XW 17005, ●● 8XW 17005, \$7.98.

When we last viewed Elton John on wax, almost two years ago, he was falling apart faster than any amount of adulatory hype could repair. The music, that forgettable double LP "Blue Moves," was overblown and insubstantial, overcompensating in instrumentation for what it lacked in originality and clarity. He and long-time lyricist Bernie Taupin shattered their partnership soon thereafter, partly due to the shock of that album's failure. And, thanks to his public pronouncements about his sex life and hair transplants, Elton became fair game for gawkers.

"A Single Man" may not win back the whole of his lost reputation, but it is a well-intentioned and quite serious step in the right direction. With only a few exceptions, he has cleared away the clutter. His voice may no longer be the pure, untroubled tenor of earlier years, but he wears its quavers and cracks proudly, like mourning clothes. John no longer appears to be interested in getting excited; he prefers to devastate through understatement.

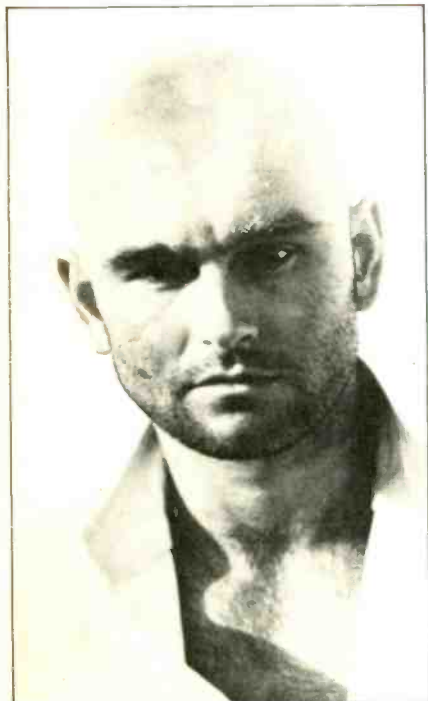
Throughout this LP the orchestra maintains its station, appropriately emphasizing the somber shades of *It Ain't Gonna Be Easy* and the chilling conviction of *Madness*. For the most part, John has opted for stressing the individual leads of his comparatively spare band: percussion, bass, guitar, and his piano. Drummer Steve Holly, now a member of Wings, hits with a light touch that is far from the thunderous whacking that used to accompany Elton's clownlike pi-

ano antics. Guitarist Tim Renwick's leads offer moments of almost painful precision and delicacy—a fitting instrumental complement to Elton's emotional outpourings.

When John does go after froth, echoes of his more ridiculous past seep through with degrading effect. *Big Dipper*, with its cutesy-lewd lyrics, merely remakes him into a tarted-up target. *Georgia*, in which he forces a grand chorale from both a girls choir and his precious Watford Football Club, commits the smaller crime of being pompous. (Admittedly it also contains a marvelous comment about Los Angeles. "where they never seem to do much/But they sure got lots to say.")

The finest moments of "A Single Man" occur when John's message is simple and aimed directly at the heart. *Return to Paradise*, a gentle calypsolike number, is touching in its sadness. The longest track, *It Ain't Gonna Be Easy*, is a deceptive romantic ballad that explores the open wound of loneliness. John consummates his skill at probing disturbed strangers in *Madness*, with a boldness as timely, abrupt, and ultimately cold as a newspaper headline. It remains to be seen whether his new lyricist, Gary Osborne, will stick with him. But here he has assisted the composer in finding a suit of martyrdom whose basic black fits fine.

With Elton no longer popping off easy plastic hits, it's ironic to hear those outdated influences hard at work on "Zwol." Are Walter Zwol's shaven head and mirrored shades a commentary on



Zwol—heading for oblivion

Elton's transplants and trademark eye-glasses? For certain, such numbers as his *New York City* and *Don't Care* rely heavily on a past of *Philadelphia Freedom* and *Saturday Night's All Right for Fighting*.

In fact Zwol's output falls squarely into the copyist's corner. Upon listening to the lyrical exaggerations and deliberate stop-and-go piano riffs that are rife on "Zwol," the reaction is twofold: Amazement that a total unknown would dare to copy a form that so closely hews to a major composer, and profound hope that such a cheater will be blessed with permanent oblivion. T.G.

The Pointer Sisters: Energy. Richard Perry, producer. *Planet P 1*, \$7.98. Tape: ●● PC 1, ● PT 1, \$7.98.

It's hard to believe that the same man who produced Barbra Streisand's first and best "rock" album and whose studio genius brought Carly Simon, Nilsson, Ringo Starr, and Leo Sayer to the peaks of their careers could produce a turkey like "Energy." Equally amazing is the fact that "Energy" is the debut release on his much ballyhooed Elektra custom label, Planet. For the Pointer Sisters (minus Bonnie, who has a solo deal with Motown and was the closest thing the group had to a lead singer) are at best a mediocre pop/r&b trio without personality. With Bonnie they functioned as a kind of hip Seventies Andrews Sisters, the excitement of their music depending on the complexity of choreographed jazzy vocals that reflected a camp L'abbé-manqué iconography.

In the past, producer Richard Perry has shown an affinity for handling camp acts. Without eradicating their appeal, he toned down Streisand's hysteria, softened Manhattan Transfer's racial parody, framed Tiny Tim's bizarre nostalgia in pop, and enhanced Diana Ross's coyness. But the Pointer Sisters are next to nothing without a gimmick. "Energy" is a multistylistic showcase for a trio with no sense of style. Aside from *Lay It on the Line* and Allen Toussaint's *Happiness*, the material (from Springsteen to Sly Stone, Stephen Stills, and Fleetwood Mac) is rendered stillborn in square three-part harmonies over tiny, mechanized arrangements that should be an embarrassment for a producer of Perry's stature and ability.

Two precedents for this custom label debut come to mind: Tom Catalano's *Tom Cat* (RCA), which bowed with chanteuse Nancy Nevins, and Jimmy Jenner's *Millennium* (Casablanca), which debuted with singer/songwriter Bruce Foster and recouped its losses with Meco. Is Planet another example of a successful producer turning cynical and cashing in on his reputation? S.H.

Arthur Prysock: Here's to Good Friends. Hy Weiss, Evan Solot, Horace Ott, & Billy Davis, producers. MCA 3061, \$7.98. Tape: ●● MCAC 3061, ●● MCAT 3061, \$7.98.

Most listeners have heard Prysock's voice on the Lowenbrau commercial from which this album takes its title cut. But most are not aware of this romantic baritone's history, which dates back to the 1940s and some memorable years with Buddy Johnson's band.

His forte is the ballad, and here he's given a selection of them, ranging from modern pop hits like *Midnight Blue* to



Arthur Prysock

relatively unknown pieces like Quinn O'Williams' *All I Can Do Is Cry*. Though many of the songs have unfortunate disco-oriented arrangements (that on *Midnight* is especially maddening), he manages to remain relatively unscathed. And when voice and arrangement come together under ideal conditions—*Funny How Time Slips Away* and *Baby I'm-a Want You*—the results are positively toe-curling. The most apt parallel to Prysock's wraparound voice is Billy Eckstine's, but Billy lacks the bit of grit that makes Prysock so interesting.

Prysock's best LPs are all but impossible to come by these days. Though "Here's to Good Friends" is not one of them, it certainly is pleasant listening. Besides, when the instrumental backings start to impose, just head for the fridge and grab yourself a bottle of what-sitsname. T.E.

David Sancious & Tone: True Stories. David Sancious & Eddy Offord, producers. Arista AB 4201, \$7.98. Tape: ●● ATC 4201, ●● AT8 4201, \$7.98.

Though Arista's publicity hints that he is in the conservatory-tinged progressive rock vein of Yes or Emerson, Lake & Palmer (both of whom coproducer Eddy Offord has worked with), in reality David Sancious has a totally different fish to fry.

"True Stories" is spiritual music with

no concessions to pop. It is a conceptual unit, a series of songs linked not only by interrelated themes, but by various reprises. Its cohesion is increased by unique-sounding organ work (reminiscent of European church music), tightly integrated drumming, and interesting use of synthesizer.

There's plenty of musical variety, however, both between and within the various cuts. *Sound of Love* opens the album with a plain-man vocal by Alex Ligertwood that turns into a kind of proclamation by Everyman. *Move On* and *Prelude #3* are typical of Sancious' fondness for contrast. The first juxtaposes a punchy, rather jarring rhythm riff with an airy passage for tamboura, acoustic piano, and flutelike synthesizer. The second combines strongly Bach-like passages with a genuinely haunting motif and then leads into modal acoustic piano.

Two quite lengthy pieces, *Ever the Same* and *Matter of Time*, are virtual miniature cantatas. Instrumentally, *Ever the Same* moves among great, heavy baroque organ chords, vaguely Latin vamps, and synthesizer riffs. Vocally, Ligertwood's rather affectingly earnest solos are capped by a moment of breath-



Southside Johnny

catching a cappella and climax with suitably arch-shaking power.

In between the major cuts are a couple of gentler moments—a rather wispy impressionist piano solo and a meditative

piece in the vein of early '70s California mystic head music. I like that sort of thing, though it irritates the hell out of a lot of people—as, I guess, could the whole album. Its effect will depend very much on whether or not you agree with Sancious' view that man is essentially a spiritual animal. J.S.R.

Southside Johnny & the Asbury Jukes: "Hearts of Stone." Steve Van Zandt, producer. *Epic JE 35488, \$7.98. Tape: JET 35488, JEA 35488, \$7.98.*

No shocks, no surprises, no progression. Such is the verdict on Southside Johnny & the Asbury Jukes' third outpouring of basic, unadulterated pleasure. This New Jersey pack, intimately tied to Bruce Springsteen through his friendship and their producer/his guitarist, Steve Van Zandt, celebrates the partying side of Asbury Park, a counterweight to Springsteen's intense heroics.

As on their last release, the songs on "Hearts of Stone" were written by Van Zandt and Springsteen. There is perhaps no romantic lament on this record the equal of its predecessors' *Love on the Wrong Side of Town*, though the title cut, a pleading ballad, is given a sincere and

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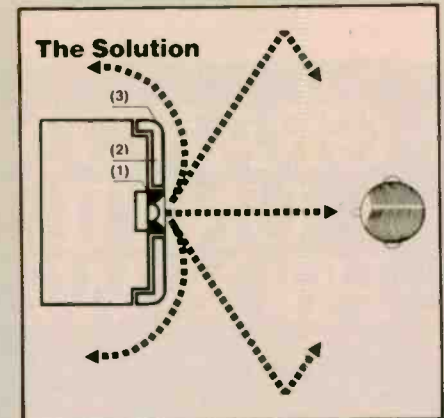
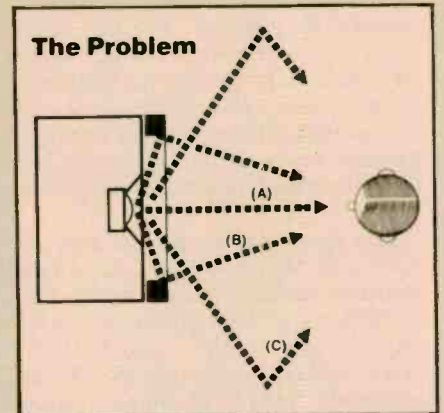
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convincing rendering by Johnny Lyon. But Southside and the Jukes are first and foremost a band, dedicated to forcing an audience to its feet and making the walls sweat. And you can feel that tension right from the outset on "Hearts of Stone" with the relentlessly vigorous openers. *Got to Be a Better Way Home* and *This Time Baby's Gone for Good*.

Guitarist Billy Rush is rapidly becoming an outstanding soloist, with leads as broad as sirens on record and capable of cracking windows when the band comes to town. The Jukes evolved from working as an r&b band, however, and they staunchly maintain their one-unit framework. Even Lyon's voice gets treated as an integral part of the instrumental whole. In fact, if there is any difficulty with "Hearts of Stone," it comes from Van Zandt's overemphasis of that raw, comprehensive sound. Lyon's vocals are several times obscured by rolling drums and bass or blasting horns. Too bad, because as one of the few honest exponents of America's lengthy rockin' soul tradition, Southside Johnny and the Asbury Jukes are not only capable of a solid delivery, but they actually have something to deliver.

JAZZ

Milt Jackson & Count Basie: Milt Jackson + Count Basie + The Big Band, Vols. 1 & 2. Norman Granz, producer. Pablo 2310 822 and 2310 823, \$7.98 each.

The swingiest of the Swing bands is paired with a soloist whose every phrase is the epitome of the genre. Though seemingly an obvious combination, Count Basie's band and Milt Jackson had never played together prior to their small-group jam sessions at Montreux three years ago. Norman Granz was responsible both for the initial pairing and for these two discs, which represent the first time the Basie band has ever used a vibraphone and the first time Jackson has recorded with a big band.

The emphasis here is on Jackson and Basie as soloists, even when the band plays standard arrangements such as *Every Tub*, *Shiny Stockings*, or *Corner Pocket*. The group's distinctive sound—steady walking rhythm, rich saxophones, and crisp trumpets—remains intact, despite some marked instrumentation changes: Herschel Evans' *Blue and Sentimental* is split between Jackson and

Basie, who play with just the rhythm section; and on Quincy Jones's *For Lena and Lenny*, Sarah Vaughan's voice is a striking addition to the saxophone section. Milt turns *L'il Darlin'* into a solo masterpiece, and Basie is superb on *Sunny Side of the Street*, tending to cut Jackson whenever the competition gets tough.

Ironically, despite the merit of the basic idea, it is the small group selections—there are five in all—of Jackson and Basie with rhythm section that are the most consistently interesting. The big-band pieces, even with Jackson's presence, tend to coagulate into a sameness of sound. There are no really weak performances, but if you have to choose between the two discs, take Vol. 2 with *9:20 Special*, *Every Tub*, *Easy Does It*, *For Lena and Lenny*, and a dark-toned Basie solo on *Blues for Me*. J.S.W.

Les McCann: McCann the Man. Paul Riser, producer. A&M SP 4718, \$7.98. Tape: •• CS 4718, •• ST 4718, \$7.98.

Les McCann is one of a generation that has been beached by the still-unhealed split between jazz and popular music. He is a magnificent singer from the school of jazz-oriented blues shouters like Joe Turner and Jimmy Witherspoon (whom he most resembles). A more-than-adequate keyboard player, he's a man who likes to entertain, and his characteristic quality is good humor. All of which puts him outside of What's Happening, to his own detriment and the detriment of everybody who misses him.

"McCann the Man" has too many tracks spoiled by the usual string-section bloat. *Blue Dot*, the one instrumental (an area in which McCann ought to shine), is high-grade stocking filler. It's adept and irritating, with drearily cheerful rhythm and slaving strings. There are a couple of offensively blah ballads in *Flow with the Feeling* and *I'm Always Waiting*, *Waiting for You*, and a bossa-and-water Brazilian-tinged piece that is again ruined by strings though McCann and guitarist Nicholas Kungu work up a pretty fine duet jam in places.

So far, so what. But the rest of the cuts allow him to stretch out, revealing a musician who not only has a tradition, but can work new and disparate material into that tradition. On the album's opener Billy Joel's *Just the Way You Are*, McCann is just marvelous, making the song his own with a soaring floating blues-flecked vocal that's a flower of ease and subtlety. That's his best bag, as proved again on *How Can You (Live Without Love)*, another big-voiced, easy, adult track that leaves the funk and soul

Continued on page 131

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Away

The Quiet Obsession of Dire Straits

by Sam Sutherland

Rock & roll has always derived as much vitality and purpose from its anomalies as it has from its trend-setters. Consider, then, the debut album by Dire Straits. Here is a fresh new quartet whose style draws directly from the British blues movement of the mid-'60s yet skips the more hyperbolic generation of '70s British rock & roll. Although their range of sources is no more limited to their models than their models were limited to pure blues, Dire Straits shares the same austere vision: tense, trim electric music shaped by leader Mark Knopfler's classic Stratocaster lines and lean rhythm work, and limited use of studio effects or multiple overdubs. There isn't a bar of music here that, save for Muff Winwood's lucid mix, couldn't be heard crackling from a cramped stage in a West End pub.

Knopfler, also the writer behind these

songs, isn't merely a chaste disciple displaying the fruits of his research. His lead work shows an authority and mature restraint that not only belies his neophyte status, but provides the album with tightly coiled dynamics. For listeners jaded by power-chord barrages and chasms of reverb, his clean, uncluttered lines and surgeon's touch will be underwhelming. But for anyone more interested in how a guitarist can use his head and hands than in how he can use his feet on an array of pedals, these performances represent one of the year's most important debuts.

All of Knopfler's sources are formidable ones. Sinuous leads, silky obligatos, and lonely acoustic slide figures variously point to Eric Clapton, Peter Green, and more eclectic British players like Tim Renwick and Richard Thompson, as well as American guitarists like

Ry Cooder. These elements are synthesized into a style both personal and coherent, with no false steps or overeager demonstrations of prowess.

The precision and clarity of the playing serve to heighten, not obscure, the depth of the material. Knopfler's melodies often share the skeletal blues character of his guitar heroes, yet his songs also reveal a sharp intelligence and a stripped-down poetic acuity. These are moody urban vignettes and brooding comments on the bonds both real and imagined between partners and lovers—classic themes, to be sure, but here animated by their author's tough, street-wise imagery. *Down to the Waterline* is an erotic reminiscence that is tender, passionate, and yet unsentimental in its dark images of furtive lovemaking. *Six Blade Knife* is a smoky minor blues that, like several other songs here, recalls J. J. Cale's spare, after-hours delivery and deceptively simple but vivid lyrics. Elsewhere, Knopfler's singing and writing combine elements of Lou Reed, Van Morrison, and Dylan, knitting them together with his own restless visions of his characters.

If Knopfler's guitar and voice are clearly focal points, the lean strength of drummer Rick Withers, bassist John Illsley, and rhythm guitarist David Knopfler are equally, if less obviously, crucial to Dire Straits' overall poise. Producer Winwood presents the ensemble with sympathetic restraint, achieving a clean and spacious sound without diluting the intimacy central to the record's atmosphere.

Perhaps the key to Knopfler and Dire Straits' purity of vision lies in two of this set's best songs, *Sultans of Swing* and *In the Gallery*, both of which address the conflict between art and success. Both warn of compromise and offer, instead, heroes willing to ignore the trends of the day and follow their private obsessions. On the strength of this first effort, I'd say Dire Straits lives up to the heroes they emulate, which is no small victory. ●

Dire Straits. Muff Winwood, producer. Warner Bros., BSK 3266, \$7.98. Tape: ■■ M5 3266, ●● M8 3266, \$7.98.



Left to right: Mark and David Knopfler, Rick Withers, John Illsley

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clones gibbering at the starting post.

Unfortunately, McCann's good humor often gets simplified to just plain humor—much of it seems to have been left behind at Atlantic Records. But there is one example of his splendidly sardonic social commentary. Musically, *You Think You're Something Mr. Man* is an all-out easy-rider with a swing that could lope right through a brick wall and smashing jazz-cum-r&b brass and sax writing. Lyrically it could shrink the most swollen head to pin size in four minutes, thirty-seven seconds flat.

I don't know if I hope McCann Makes It Big—he's too subtle not to lose something in the translation to the vernacular. But I'm sure glad he's around, even on such a lopsided album as this one. J.S.R.

Weather Report: Mr. Gone. Josef Zawinul, producer. *Columbia JC 35358, \$7.98. Tape: JCT 35358, JCA 35358, \$7.98.*

It was almost too much to expect that "Mr. Gone" would equal the brilliance of Weather Report's last LP, "Heavy Weather." Josef Zawinul, Wayne Shorter, Jaco Pastorius, et al have simply not provided us with the kind of instant accessibility we heard on their last outing. Some pieces here are transitory and almost episodic, sounding as though we had been tuned into the middle of something and then, just as abruptly, tuned out. Others rely too heavily on synthesizer-derived sequences of notes that repeat like bizarre electronic passagias.

In fact, Zawinul's synthesizer work dominates everything on "Mr. Gone." He surely is a master of the Arps, Oberheims, etc. that make up his electronic arsenal, and I suspect he employs them with more sheer musicality than anyone in the world. In some cases (Shorter's *The Elders*) he creates moody, tonally ambiguous settings, in others (*Pinocchio, And Then*) he punches out crisp, brass-like jazz figures. One never has the feeling that he is simply imitating other instruments or, worse, that he is trying to overload us with sheer shock.

Still, despite Zawinul's electro-musical genius, despite the astonishing bass playing of Pastorius (particularly on the opening of *Punk Jazz*), despite the consistently rewarding improvisations of Shorter, and despite Pastorius' and Manolo Badrena's attempts to break out into exuberant vocalisms (on *River People* and *The Pursuit of the Woman with the Feathered Hat*, respectively), this is a hard record to like without reservation. It seems to suggest an incomplete transition to something new. In this case, getting there is not quite half the fun. D.H.

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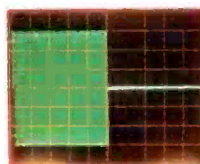
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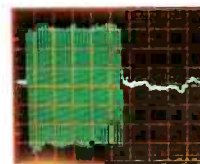
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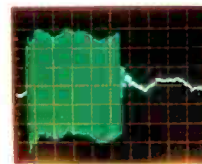
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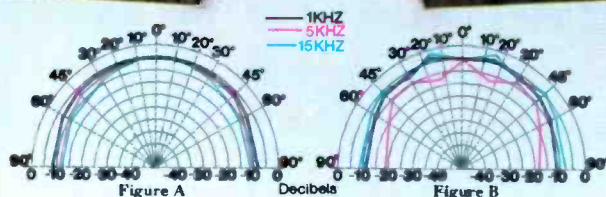
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