

JUNE 1979 • \$1.25

Stereo Review®

RECORD HYGIENE: Getting into the Groove Is the Secret

THE PASSIONATE COLLECTOR: How Much Is a Rare Disc Worth?

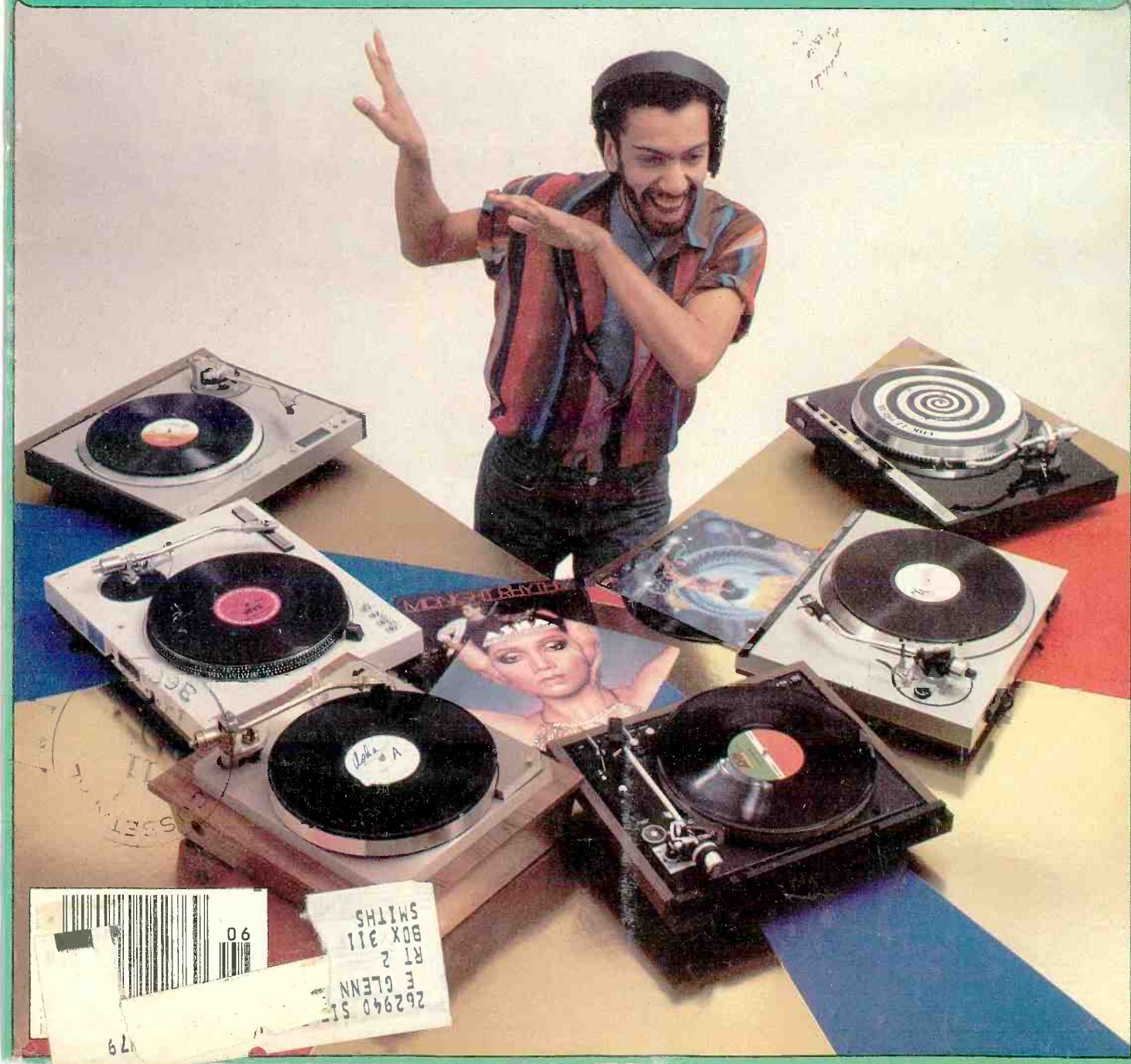
EQUIPMENT TEST REPORTS: B&O MMC 20CL Phono Cartridge

KEF Model 105 Speaker System • Scott Model 830Z Audio Analyzer

Soundcraftsmen SP4002 Preamplifier • Yamaha CR-840 AM/FM Stereo Receiver

A TURNTABLE PRIMER: What You Should Know Before Buying

UNDER LABORATORY CONDITIONS,
FEW HIGH PRICED TURNTABLES
SOUND AS GOOD AS THIS ONE.



UNDER REAL CONDITIONS, NONE DO.

For years, people have been selecting turntables based on specs obtained in a lab, without knowing what kind of sound they'll obtain in their homes.

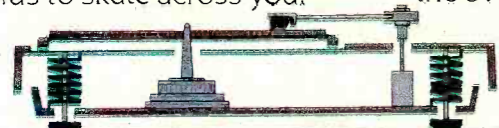
And while a few turntables today look as good as Pioneer's PL-630 on paper, you'd be hard pressed to find one that sounds as good in your living room.

A SUSPENSION SYSTEM THAT ELIMINATES SHAKE, RATTLE & ROLL.

In your home, simply walking across the floor can cause the stylus to skate across your records.

And acoustic feedback can make even the most lively piece of music sound dull and lifeless.

Pioneer's PL-630, however, has a free floating suspension system that isolates the platter and tone arm from the rest of the turntable. So that while the base may vibrate, the platter and tone arm won't. Which means you don't have to tip-toe across the floor just to prevent vibration. And you can turn your music up loud enough to rattle the walls without fear of rattling the turntable.



When the base of the PL-630 vibrates, the platter and tone arm don't.

A DIRECT DRIVE MOTOR THAT WON'T DETERIORATE WITH OLD AGE.

All DC direct drive motors start out to be incredibly accurate.

Unfortunately, they don't always stay that way. After a while, the quality of sound could deteriorate because the motor is left exposed and free to collect dust and foreign objects.

This is not the case with the PL-630. Unlike most of the competition, its motor is totally enclosed. Which means that the incredible wow and flutter figure of 0.025% will still be an incredible 0.025% years from now. And so will the 0.002% speed accuracy.

What's more, the electronic circuitry of this Quartz PLL Hall element system constantly monitors itself. When it senses the slightest deviation in speed, it corrects itself. By just switching the quartz "lock" on, you lock onto the correct speed, so you're assured of accurate platter speed at all times and under all conditions.

And because of its extremely high torque, the PL-630 reaches full platter speed in a mere third of a revolution.

But more importantly, it stops almost as quickly as it starts. Reverse current is fed into the drive system eliminating both excessive wear on the turntable and the need for a brake.



Spring loaded tone arm pivots help improve sensitivity.

The electronic brain of the PL-630.

ONLY ONE THING COMES THROUGH THE TONE ARM. MUSIC.

The tone arm of the PL-630 rests on a massive die-cast aluminum base.

And while other tone arms may rest on a similar base few, if any, are mounted to it in a similar manner. Instead of piano wire or cheap plastic casings that vibrate, the PL-630's tone arm is gimballed on spring mounted pivot bearings. This not only reduces tracking error due to tone arm pivot wear, but increases the overall performance of the turntable.

Which brings us to the magnesium headshell. It has far better acoustical properties than the headshell you'll find on most turntables. This new construction reduces the chances of hearing any howling or distortion.

FEATURES OUR COMPETITORS PRETEND THEY'VE NEVER HEARD OF

Our platter mat is concave so that even if your records are slightly warped, they'll sound like they aren't.

Our spindle is only 0.8 microns larger than most, but it can make a big difference in keeping your records perfectly centered.

And our massive platter is less vulnerable to fluctuations in speed than smaller platters that come with most turntables.

Even the way the platter is coupled to the motor is unique. It doesn't have bearings. It's precision machined to a tapered fit so that it's less likely to wobble.

And while you'll find a strobe on most direct drive turntables, you won't find one on the PL-630. Simply because there's no need for one. Instead, there's a pitch display that gives you visual confirmation of accurate speed.

You'll also find super sensitive controls that even shut off the power automatically when the tone arm comes to rest.

If you're beginning to get the idea that Pioneer's PL-630 would sound great in your home, we suggest you go to your nearest Pioneer dealer.

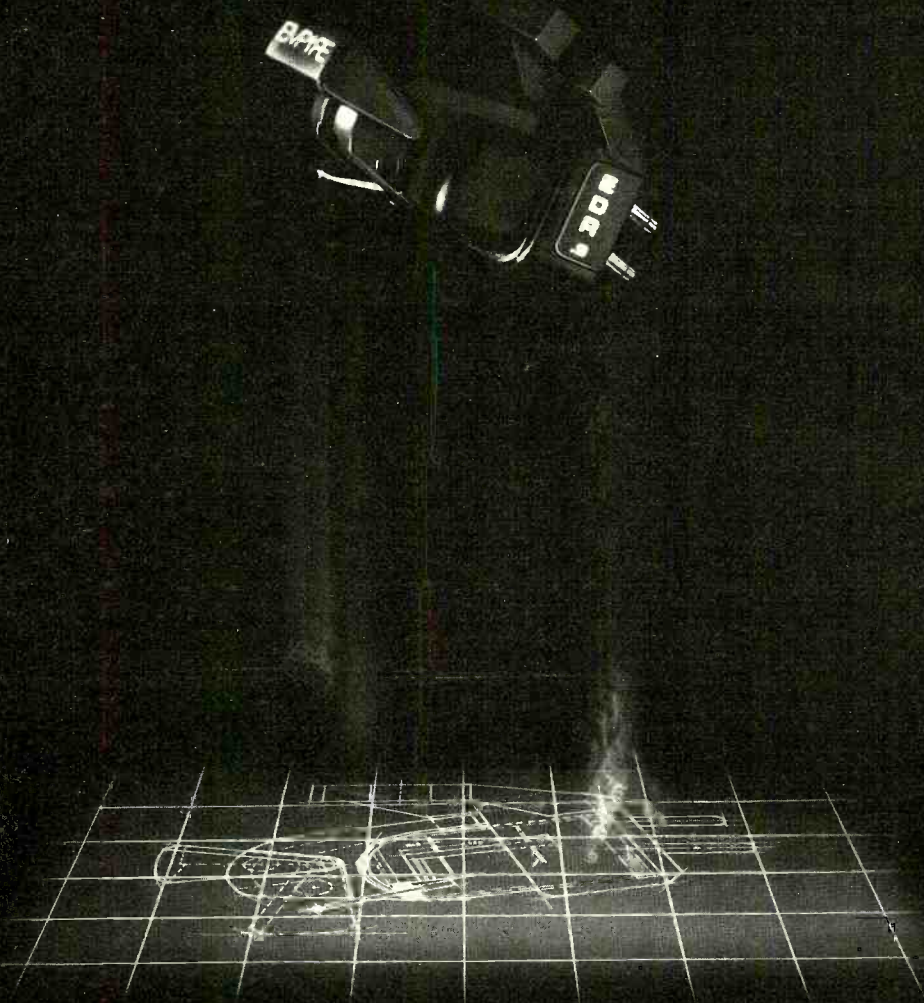
After all, you may not live in a sound room, but it doesn't mean your living room can't sound like one.

PIONEER®
We bring it back alive.





THE PL-630.



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

It was inevitable . . .

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

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

Empire's EDR.9 (for Extended Dynamic Response) has broken with this tradition, and is the first phono cartridge that not only meets the highest technological and design specifications—but also our

demanding listening tests—on an equal basis. In effect, it bridges the gap between the ideal blueprint and the actual sound.

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

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

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

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

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

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

Stereo Review®

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The first high-technology record cleaner was the Discwasher System. Four scientific revisions later, the Discwasher is literally years ahead of all other devices.

WITH PRIORITY TECHNOLOGY:

Discwasher D3 Fluid is proven by lab tests to be the safest active cleaning fluid for record care. But a good fluid is not enough. The Discwasher System is also a *precision removal system* that uses capillary action with slanted micro-fibers to lift dust, dirt, and dissolved debris off the record, rather than pushing them around like "dry" and "constant humidity" methods. The real dimensions of record care are safety plus integrated function.

WITH PRIORITY TECHNOLOGY:

The unique Discwasher handle is constructed of hand-rubbed walnut which will long outlast "plastic wonders". This easily held handle is lightweight because of an integral cavity which conveniently holds the D3 Fluid bottle. A special brush to clean the directional-fiber Discwasher pad is included without charge, and also fits inside the handle cavity.

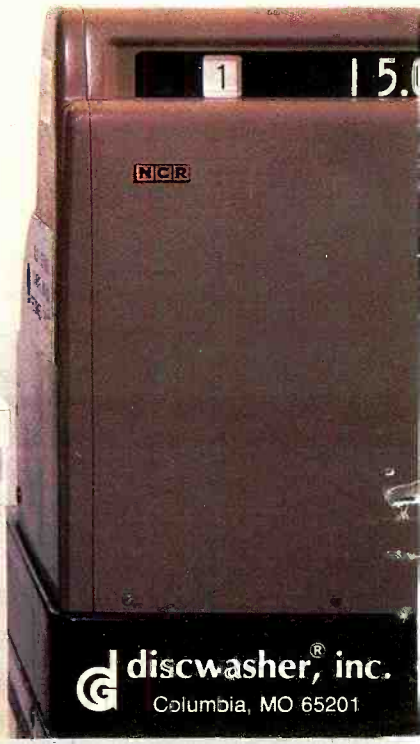
WITH GENUINE SATISFACTION:

Only Discwasher gives immediate performance, long-term record safety, pleasing physical characteristics and a price that hasn't changed in five years.

Seek out the Discwasher System, by name. Only Discwasher delivers technology, value and satisfaction.

CIRCLE NO. 17 ON READER SERVICE CARD

YOUR RECORDS DESERVE SUPERIOR CARE: SEEK OUT THE DISCWASHER® SYSTEM



discwasher, inc.
Columbia, MO 65201



Stereo Review BULLETIN

Edited by William Livingstone

• A NEW STEREO TELEVISION SOUND distribution system called DATE (for Digital Audio for Television Equipment) has been introduced by the Public Broadcasting Service. Up to now, "simulcasting" (the simultaneous transmission of video and stereo-FM audio) for the musical programs in Exxon's Great Performances series has been available in only fifteen cities. The new system gives all interconnected PBS stations the capability of broadcasting these programs in stereo. PBS encodes the stereo signal on two of four additional audio channels and transmits it by satellite along with the standard audio and video signals. Stations wishing to simulcast the program decode the stereo signal locally and feed it to the FM station taking part in the simulcast. Can real stereo TV be far behind?

• LIST PRICES OF LONDON CLASSICAL RECORDINGS have been increased from \$7.98 to \$8.98 per disc or cassette. The Stereo Treasury Series, formerly \$3.98, now costs \$4.98 per disc or cassette. The new London Digital Recordings, recently introduced at \$9.98 per disc and pressed in England, remain at that price (see review of the first release--Boskovsky's Strauss--on page 146).

• THE HOLLIES, veteran English hitmakers, have reunited with their on-again/off-again lead singer Allan Clarke, and a new album is scheduled for late June release on Epic. If the title, "Five Three One Double Seven Oh Four," sounds confusing, just punch the numbers out on a pocket calculator and then turn it upside down. Clever?

• VIDEODISC RIGHTS TO 350 FILMS, including 200 from MGM and 100 from 20th-Century Fox, have been secured by RCA for its Selectavision system, reported to be in the final stages of preparation for commercial production. Included are High Noon, Citizen Kane, and the original King Kong. The RCA disc, which is "read" by stylus, will not be compatible with the already introduced Magnavision system, which uses a laser.

• VOTED BEST-SELLING CLASSICAL RECORD OF THE YEAR at the recent convention of the National Association of Recording Merchandisers in Hollywood, Florida, was "Suite for Flute and Jazz Piano" (Columbia M 33233) played by Claude Bolling (piano) and Jean Pierre Rampal (guess what). Nice, but it gets nicer: this same album has received the award from NARM for three years in a row.

• EXEMPTION FROM NEW STANDARDS REGULATIONS proposed by the Federal Trade Commission has been requested by the Institute of High Fidelity. The regulations would establish a legal process for the definition of product standards. According to the IHF, such regulations should not apply to technical-measurement standards in the audio field, where they are used simply to facilitate performance comparisons between products tested under uniform conditions and not to define or categorize product types.



Stereo Review BULLETIN

Edited by William Livingstone

• BANG & OLUFSEN'S U-70 HEADPHONE, designed by Jakob Jensen, has been selected for inclusion in the permanent design collection of the Museum of Modern Art in New York. The headphones are the thirteenth B&O component to be added to the collection, which is devoted to outstanding examples of contemporary industrial design. The headphones are on display with such items as a Cisitalia 202 GT sports car designed by Pininfarina and Mies van der Rohe's famous Barcelona chair. An entire exhibit of B&O products assembled by MOMA last year is currently on view in Chicago's Museum of Contemporary Art.

• RCA'S FIRST DIGITALLY RECORDED DISC, Bartók's Concerto for Orchestra performed by the Philadelphia Orchestra under Eugene Ormandy and recorded with the Soundstream system, will be released in June on Red Seal. Recordings made by the Dallas Symphony Orchestra and Chorus under Eduardo Mata using the Sony PCM digital system will be released later this year. They include Emanuel Ax playing the Mozart Piano Concertos Nos. 20 and 22, Stravinsky's Firebird Suite, and Ravel's Daphnis and Chloë.

• STIFF RECORDS, the successful English independent label that has been without an American distributor since parting company with Arista, has found a home at CBS. No official announcement yet, but insiders report that Rachel Sweet and Ian Dury (just coming off a huge English and European hit, Hit Me with Your Rhythm Stick) will be on Columbia, while Lene Lovich, Wreckless Eric, and the Rumour will be on Epic.

• A ONE-YEAR COURSE IN MULTITRACK RECORDING TECHNOLOGY is being offered by the Institute of Audio Research in New York. The course covers sound reproduction and recording theory as well as studio setup, operation, and maintenance. Tuition is \$2,800. Those who complete the course receive twenty-eight credits toward the Bachelor of Science in Music Technology degree offered by the Institute in conjunction with New York University. For information write Institute of Audio Research, 64 University Place, New York, N.Y. 10003.

• SPANISH PIANIST ALICIA DE LARROCHA, who is celebrating her fiftieth anniversary season, was made an honorary Doctor of Music by the University of Michigan at Ann Arbor on April 28. At the ceremony, Dr. de Larrocha was cited for "her incredibly pure musicianship and for the beauty and authority of her performance." Her latest recorded performance is Beethoven's Emperor Concerto with Zubin Mehta and the Los Angeles Philharmonic (London CS 7121).

• TONE ARMS WITH AN EIGHT-GRAM EFFECTIVE MASS (including cartridge) are a feature of nine new Dual turntables to be introduced at the June Consumer Electronics Show. The eight-gram figure, among the lowest ever achieved, was reached by using lightweight materials and a low-mass cartridge assembly developed by Ortofon.

RECEIVER TA-150

Computer-Controlled Simplicity!



SINGLE KNOB CONTROL

No audio signals pass through this knob. It tells the computer via optically read pulses what you want the computer to do and allows you to adjust volume, bass, midrange, treble, tuning, presetting of stations and setting of the built-in clock.

SUPERB SOUND

TA-150 is a preamp and power amp in the same cabinet. Sound is equal to or better than most separate components.



Available at quality audio stores, such as:

Audio Components
Carmel, CA
Paris Audio
Los Angeles, CA
Natural Sound
San Francisco, CA
Paris Audio
Sherman Oaks, CA
Dimensions in Stereo
Torrance, CA
Schrader Sound, Inc.
Washington, DC

Sound Components
Coral Gables, FL
Audio Etc.
Gainesville, FL
RMS Sound, Inc.
West Palm Beach, FL
Victor's Stereo
Chicago, IL
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Morton Grove, IL
Stereo by Midwest
Des Moines, IA
David Beatty Stereo
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The Gramophone
Birmingham, MI
Esoteric Audio
Wayzata, MN

David Beatty Stereo
Kansas City, MO
Harmony House II
New York, NY
Harvey Sound, Inc.
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White Plains, NY
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Woodbury, (L.I.) NY
Park Avenue Audio
New York, NY

Audio Craft Co., Inc.
Akron/Fairlawn, OH
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Cleveland, OH
Audio Craft Co., Inc.
Mayfield Heights, OH
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Soundpost HiFi
Morgantown, WV
Soundpost HiFi
Princeton, WV

Speaking of Music...

By William Anderson



THE CRITIC'S DUTY

I DON'T know what to blame it on—the rising of the sap after a nasty winter, the ravages of inflation and taxes (I'm writing this in mid-April), the threat of nuclear fallout, or the epizootic—but the number of letters from Irate Reader the past few weeks has been great enough to make me feel like Sisyphus watching that old rock roll down the hill one more time.

"Everyone knows," writes one correspondent, "that critics are supposed to give unbiased views untainted by personal tastes" (everybody, one supposes, except the critics themselves). Another accuses us of "practicing a criticism which vacillates between a petit-bourgeois moralism and a chatty, informal pop sociology . . . an exercise in preening and self flattery rather than an honest appraisal of music." (I, for one, delight in bourgeois morality, petit or otherwise, believe *all* sociology to be at bottom "pop," and

doubt that an "honesty" reading can be taken off a printed page.) And still another reader, while admitting that "pop music is so intertwined with the social milieu that it is nearly impossible to separate the two," believes that "the role of the music critic is primarily a descriptive one" (it would be instructive to learn what alchemy he has found to separate describers from descriptions).

You will note that my correspondents are getting cagier: they no longer enter the lists waving the banner of "objectivity" against the heathen hordes of "subjectivity," though that is certainly what the three charges above amount to. But what *is* it that causes some people to conclude immediately that any opinion differing from their own is at best uninformed, at worst dishonest? One possibility is that their opinions are borrowed (ironically, from other critics, including friends), weakly held, or merely unexamined. When they are

brought into question by someone who is not only paid to examine his opinions but prepared to defend them in reasoned detail, the response is a kind of tantrum of defensive indignation. Another possibility is that it is the result of extending to universal applicability the convention of civility that rules out politics, religion, and (formerly) sex as proper subjects for polite conversation. But avoiding controversial subjects under circumstances where they might result in a poke in the nose is a practical consideration unnecessary in the world of print.

The proper stance for a critic is, I think, beautifully and succinctly typified by a line from a review in this issue by Edward Buxbaum: "I saw *Fantasia* when I was twelve, and it changed my life." It's all right there: the critic speaks out of the matrix of his life's experiences, he is honest about them, and he is eager to communicate their essence in a way that may permit others to share them. This is not easy, for it requires a hard, unrelenting pursuit of the elusive, naked Self through the corridors of the resisting mind, but no opinion is worth anything without it. The writer Flannery O'Connor says that "the moral basis of Poetry is the accurate naming of the things of God. . . . You ask God to let you see straight and write straight." A critic too can neither see straight nor write straight until he comes to terms with who he is, until he faces—indeed, embraces—the realization that what he knows, how he came to know it, how his mind deals with the knowledge, and how he presents it to others are all inescapably individual, unique, and *subjective*, that any other approach to his duties is mere dissembling.

I AM indebted to the second of my correspondents above for the following: "Most of your columnists labor against the cult of expertise and instead celebrate the joys of amateurism." Yes, they do; I find that a very worthy set of goals for any musical journalist, and I could not have put it better myself.

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The Technics isolated-loop system.
It's the one big difference
between their decks and ours.



Every one of Technics four open reel decks has one thing in common: The performance of Technics isolated-loop tape transport system. And that means performance that's comparable to professional open reel decks costing thousands of dollars more.

By isolating the tape from external influences, our isolated-loop tape transport system minimizes tape tension to a constant 80 grams. This not only provides extremely stable tape transport and low head wear, it also reduces modulation noise and wow and flutter to the point where they're detectable on only sophisticated testing equipment.

Electronically, our line of isolated-loop tape decks are equally impressive. The reasons are as simple as their IC full-logic transport controls, highly accurate microphone amplifiers, FET mixing amplifiers and separate 3-position bias/EQ selectors.

And you'll get all this technology whether you choose the two-track RS-1500, the extended playing time of the 4-track RS-1506 (shown above), the convenience of the

4-track RS-1700 with auto-reverse or the studio features of the RS-1520.

There's also an optional full-feature infrared wireless remote control (RP-C70). With it you can get your hands on all this sophistication from up to 20 feet.

All four decks hit the competition right between the reels. Because all four have: **FREQ. RESP.**: 30-30,000 Hz, ± 3 dB (-10 dB rec. level) at 15 ips. **WDW & FLUTTER**: 0.018% WRMS at 15 ips. **S:N RATIO**: 57 dB (1506 & 1700) and 60 dB (1500 & 1520) NAB weighted at 15 ips. **SEPARATION**: Better than 50 dB. **START-UP TIME**: 0.7 sec. **SPEED DEVIATION**: $\pm 0.1\%$ with 1.0 or 1.5 mil tape at 15 ips. **SPEED FLUCTUATION**: 0.05% with 1.0 or 1.5 mil tape at 15 ips. **PITCH CONTROL**: $\pm 6\%$.

Technics open reel decks. A rare combination of audio technology. A rare standard of audio excellence. Cabinetry is simulated woodgrain.

Technics
Professional Series



**Introducing the Bose® Spatial Control™ Receiver.
The first and only receiver to let you control the spatial image of sound.**



The Importance of Spatial Properties of Sound

Imagine you are at a live performance. The music which reaches your ears comes not only directly from each instrument, but from every surface which reflects the sound. This combination of reflected and direct sound creates the spatial image of sound; it provides the ambience that makes music sound lifelike.

The Bose® Spatial Control™ Receiver is the first and only receiver that creates, in your living room, a variable spatial distribution of sound, allowing you to adjust the spatial image for different kinds of music.

Controlling the Spatial Image

When you are listening to orchestral music, move the spatial slide control to the wide position. Special circuitry directs middle and high frequencies to the rear outside drivers and the front drivers of the Bose 901® Series III or IV loudspeakers. This creates a broad, dispersed pattern of reflections. You experience the breadth and spaciousness of a symphony orchestra.



Should you be listening to a soloist or small group, slide the control toward the narrow position. Now more sound energy is directed to the inside rear drivers to create the focused sound image you associate with intimate performances.



Built-in Bose 901 Equalizer

The Bose 901 Series IV equalizer, built into the Spatial Control™ Receiver, gives you substantial savings when purchasing 901 loudspeakers since you don't need to buy a separate equalizer.

The third speaker connection terminal on each Bose 901 Series III or IV loudspeaker makes it possible to control different sets of drivers independently. It is the key to varying the spatial properties of sound.

The Spatial Control™ Receiver is a complex combination of a stereo preamplifier and equalizer, switching circuits, compensation circuits, and four main power amplifiers. Bose-developed logic circuitry, using CMOS components, controls the complex interconnections among these elements, for ease of operation and great versatility.

Simply program the receiver for your speakers by setting the switches on the rear panel; the rest happens automatically as you operate front panel switches. Programmability gives you several options. For example, the spatial slide controls can also be used as a balance control between two sets of speakers, one equalized and the other unequalized.

Six Power Amplifiers Offer Extraordinary Versatility

Four Direct-Coupled Fully Complementary power amplifiers drive the different arrays of 901 drivers when the receiver is in the spatial mode. Two fully independent power amplifiers drive the headphones with an unequalized signal, regardless of the speakers in use. Each amplifier is individually accessible; you can, for example, enhance the realism of your system with a time delay accessory, without adding a separate amplifier.

Source and Room Compensation Controls Give More Accurate Overall Frequency Response

Bose has made precise measurements of the acoustic properties of different rooms and recording techniques and found that conventional tone controls are simply inadequate to compensate for the problems that occur in typical listening environments. The unique Source and Room Compensation Controls found on the Spatial Control Receiver approach the effectiveness of a more complicated graphic or parametric equalizer but are as easy to use as standard tone controls.

The Source and Room Compensation Controls embody the basic characteristics of the 901 Series IV equalizer controls and extend their range of control to lower frequencies. In acoustically "dead" rooms, they help restore brilliance and clarity to the high frequencies. They can also largely eliminate boominess in poorly mixed records without affecting bass fundamentals and they can restore much of the fullness lost when room surfaces absorb excessive sound energy.

The Result: Unparalleled Performance and Versatility

The Bose Spatial Control™ Receiver offers discriminating listeners an unequalled system for the realistic reproduction of sound. No other receiver lets you control the spatial aspects of recorded music. No other receiver has been designed to take full advantage of the unique sound-producing characteristics of the world-renowned Bose 901 loudspeaker system. And no other receiver gives you such extensive control over the acoustic variables found in widely different room environments and recordings. No other receiver offers the total listening experience of the Bose Spatial Control™ Receiver.



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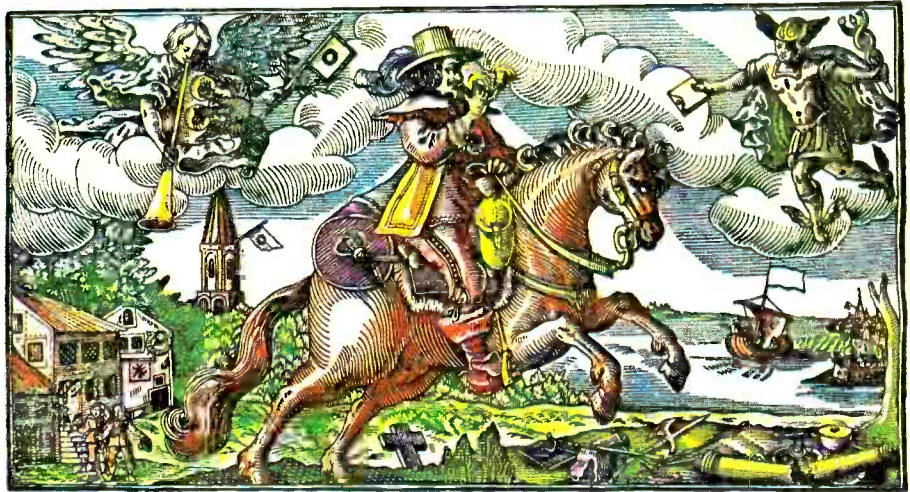
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CIRCLE NO. 39 ON READER SERVICE CARD



LETTERS TO THE EDITOR

Reader Service

● About six months ago (just before Christmas) I asked for some product information using one of your Reader Service cards. After a couple of months I didn't receive it, so I asked for it again. I still haven't gotten it. What's wrong with you guys anyway?

ARTHUR NELSON
Lincoln, Neb.

The Editor replies: Probably a lot of the same things that are wrong with most people, but not answering our mail is not among them! The Reader Service cards in each issue of STEREO REVIEW are a free service for our readers designed to simplify their obtaining product information from our advertisers (if you are requesting more than one item, it even saves a little on postage). We do not, however, handle the packaging and mailing of the information itself. What we do is supply the reader's name and address to the advertisers whose "bingo" numbers were circled on the Reader Service card so that they can handle their own mailing. Unfortunately, in this as in all else, the world is an imperfect place, and not all advertisers give such requests first priority, delaying the mailing of the information for unreasonable lengths of time or possibly even neglecting to mail it at all. And some advertisers, of course, request that they not be assigned a Reader Service number; if you want to contact them you must do so direct. In defense of advertisers, it must be added that most of them cheerfully process all requests promptly even though they know that some may not be serious inquiries. However, if you have been having trouble getting information from a bashful manufacturer or two by means of the Reader Service card system, try writing them direct.

Giles, Giles, and Fripp

● In the April "Letters," Denny C. Lail asked whatever became of Giles, Giles, and Fripp. As any lover of great rock music should know, Robert Fripp and Mike Giles teamed up with Greg Lake to form the precocious and phenomenal King Crimson. Brother Peter Giles joined in on the bass for the sec-

ond King Crimson album before leaving to become a computer operator. Mike Giles also left after the second album to join Ian McDonald (now with Foreigner) to play music that was "more personal to them." Fripp continued as the bedrock of King Crimson through eight more albums, each employing a different array of musicians. He is now possibly the best studio guitarist in England and has recently been playing with ex-Genesis lead singer Peter Gabriel. Enough?

KENNETH OLSEN
Albuquerque, N.M.

Not quite. Robert Fripp is now living in New York and has been getting involved with the production side of records, his latest credit in that area being "The Roches" for Warner Bros.

Dance Rock?

● I am a thirty-year-old devout follower of rock-and-roll, and to me the best in rock criticism is represented by Steve Simels and Lester Bangs (who was a high-school classmate of mine). Nevertheless, Steve's response to Tom Ruzga's April letter regarding the Clash's "Give 'Em Enough Rope" is not really to the point. If I want to dance I will listen to disco. Steve, stick with Elvis Costello!

CRAIG R. BARTHELMESS
San Diego, Calif.

Craig, see Paulette Weiss' column this month; people are dancing to rock.

Digital Remastering?

● I think that Editor William Anderson's "Postponing Life" in the April issue misses an important point. He speaks of digital recording only as a threat to our existing libraries of analog recordings. If and when we get a reasonably priced system of digital home playback, it could breathe new life into several decades of analog recordings. I have the impression, mostly from reading STEREO REVIEW, that there is a considerable gap in sound quality between a master tape and the

(Continued on page 14)

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**Smooth & fresh
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A light menthol blend gives low "tar" smokers the smooth taste they want. Never harsh tasting. Make the smooth move to KOOL Super Lights.



**At only 9 mg. tar,
it's lower
than all these.**

Smooth taste in
Kings and "100's,"
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19 mg. 'tar' 17mg. 'ta-' 10 mg. 'tar' 13 mg. 'tar'

Warning: The Surgeon General Has Determined That Cigarette Smoking Is Dangerous to Your Health.

9 mg. "tar", 0.3 mg. nicotine av. per cigarette by FTC method.

usual disc release. A digital rerelease dubbed directly from the master could bridge that gap, allowing us to hear "classic" recordings as they have never before been heard outside the studio control room. Lots of people would hear for the first time how good an analog recording can be. I could myself compile quite a list of beloved recordings of which I would eagerly buy digital rereleases.

JOHN NIESSINK
Portage, Mich.

The Editor replies: Nice try, but no cigar. Even today's best analog master tapes usually have much more frequency limiting, dynamic compression, and distortion than digital masters, and although there may be something to

be gained, sonically speaking, from transcribing some of the better analog masters through this spanking new technology, digital techniques should be considered primarily as a means of giving us something we have not heard before, even in control rooms, not as a salvage for the sinking past. In any case, the very last thing I would want to call them is a "threat!"

Simels Zapped

● I was going to write a letter praising Steve Simels for his brief but fair exposé on Frank Zappa in the April issue. "What an honest and responsible journalist he is." I thought to myself, "for printing [p. 81] such critical

words about his own profession." Then I read his review of the new George Harrison album in the same issue. Alas, how ironic that Mr. Simels should be the exact kind of "literate intellectual" that Frank Zappa was so critical of. The "subliminal attitude that permeates all of rock journalism" makes me sick, too, Frankie! If George Harrison is boring compared with the Beatles, name me more than a handful of contemporary musicians who aren't. If that is Steve Simels' idea of criticism, please cancel my subscription to the "music" section of STEREO REVIEW (just rip it out; I don't care about the jagged edges, just so I'm not tempted to read such pompous trash).

ROBERT ASH
Atlanta, Ga.

● As a subscriber to STEREO REVIEW for several years, I have observed that the favorite targets of those who write letters to the editor are the record reviewers. This, of course, indicates that little criticism of the magazine's format, feature articles, product reports, and advertising is needed. I agree.

But we in the twenty- to thirty-year-old age bracket must find fault with everything, from our sex lives to the color of our money. (Failure to find fault does not prove a lack of fault, only our ignorance of it—which works out fine because we can then berate ourselves for our ignorance.) A negative review may bring out almost animalistic reactions from some readers, but this is a positive result from the magazine's perspective, since it shows that the reviewers are reaching the readers (any reaction beats no reaction).

What this is leading up to is that I have assigned myself the burden of defending Steve Simels. His writings seem to annoy many STEREO REVIEW readers. But I find his humor enjoyable, his writing style interesting, and his many "reflections" into the past stimulating to my own memory. Steve's job is to entertain readers, and, in approximately four years, I have yet to read an unentertaining article by him. It isn't important if he likes the artist or music he is writing about; most people who invest substantial money in stereo systems trust their own opinions in these areas.

DONALD F. LARGE
Liverpool, N.Y.

Cassette Portables

● Although I enjoyed Ivan Berger's March article on portable cassette recorders (having recently gone through the process of choosing one for myself), I would like to suggest some additional points worth considering by potential purchasers and also make a couple of small corrections.

In order to save on size and weight, some units have a separate a.c. power pack, which is fine if most of your recording will be done using batteries. If, however, you need portability mainly to get the deck from one place to another and plan to use available a.c. outlets at your recording locales, the a.c. power pack becomes a necessity rather than an option. In that case, you should consider not only its additional weight but also the inconvenience of having an additional piece of equipment to carry around.

Battery life is an important consideration, (Continued on page 17)

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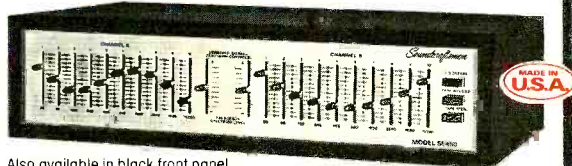
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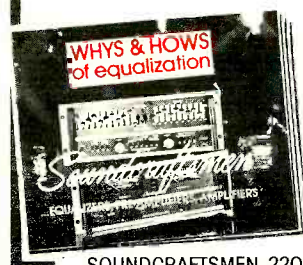
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**Until now, you had to buy a Lamborghini
to hear an Alpine car audio.**

In introducing Alpine: the car audio that Lamborghini selected to be standard equipment on their \$85,000 sports machine. Alpine audio systems are pure-bred, high-technology designs for the car listening environment. The new Alpine systems offer more features, and more combinations of features, than ever before available on in-dash car audio. Features like memory logic electronics, music sensor, Dolby,® key-off eject, cassette glide, loudness contour and a CrO₂-FeCr switch. These systems also offer high power—20 watts-per-channel RMS—along with low distortion and unbelievably low wow and flutter (.09% on many models).

ALPINE

At the heart of Alpine's line there are two types of "master" units: the Integral Component and the Micro Integral. Each type houses an FM/AM Stereo Tuner and Cassette Deck. The Micro Integral models also feature an amplifier and are completely self-contained. Alpine accessory equipment includes Digital Time Delay (for concert hall-like ambience) and Graphic Equalizers. And Alpine offers Loudspeakers which handle the enormous clean power of Alpine car audio systems. Consult your Alpine dealer for professional planning to suit your particular needs. Alpine: We're new, and everything we do is new. Alpine Electronics of America, Inc.

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The new Datsun 310 is the most extraordinary economy car Datsun has ever built. Here's why you must sample it yourself.

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- 3** We believe the plush interior (offered as standard equipment) is easily the most comfortable, most luxurious in its class.
- 4** With all its style, performance and comfort, the 310 is still an economy car. The EPA estimated it at **27** EPA estimated mpg, **38** estimated highway on regular gas (except California). Use these numbers for comparisons. Actual mileage may differ depending on speed, trip length, and weather. Actual highway mpg will probably be less than EPA highway estimate.

27 | **38**
EPA ESTIMATED MPG | EPA ESTIMATED HIGHWAY

5 Quality. Every Datsun 310 is carefully built by the Nissan Motor Company, Ltd.—a worldwide automotive leader whose very name means quality. And they go to incredible lengths to insure that quality.



Like taking extraordinary measures to fight rust—sealing the rocker panels with a zinc coating for added corrosion resistance, for example. But these are the kinds of things you do when you are dedicated to quality and driven to build cars that last.

6-39 Are standard features on the new 310 you may have to pay extra for on other cars. Like remote control rear windows, reclining bucket seats, split fold-down rear seats and steel-belted radials. And thirty other standard features your Datsun dealer will gladly show you.

**NOBODY DEMANDS MORE
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FREE. Take this coupon to your Datsun dealer and get:

1. 46-page full line catalog.
2. Personalized test drive.
3. Front-wheel drive buyers guide.

CIRCLE NO. 15 ON READER SERVICE CARD



but so is the *number* of batteries. The Nakamichi 550 may last longer, but it requires eight D cells. Sony TC-158SD has a 10-hour life and requires only four D cells.

Another weight- and cost-related issue is the use of plastic parts in the switching/tracking mechanism. The life span of such parts is probably shorter than that of metal parts. Failure will require replacement of the mechanism rather than an individual part.

There were two errors in the description of the Sony TC-158SD. First, the "memory" light on the VU meter does not lock on in the battery mode. Second, the light switch will cause them to glow for four seconds and then fade out. They do not stay on continuously during a recording. Second, the unit does have a battery with surprisingly good fidelity. It is not good enough to judge recording quality unlike headphone monitoring. It is suitable for playback to more than one pair of speakers without separate playback equipment.

M
S

Ivan Berger replies: Mr. Lia, for the most part, well taken. Some of the details were omitted from the review for reasons of space. In the matter of metal parts, I wasn't able to check this, and I don't think a prospective buyer could either. The description of the Sony deck was somewhat ambiguous in the manufacturer's literature, as with some of the other units discussed in the article, I was not able to make any personal examination of this particular machine.

1979 Chipmunks

● Steve Simels is warped for comparing Bee Gees to the Chipmunks. I'm embarrassed for them should they happen to catch up with this unjustifiable criticism (April 1979). You see, I adore them. I own all but two of their albums and cherish each ballad and "crying song." Okay, okay, I'll admit that not all their songs are A-1, but even the lesser ones were a foundation for their current hits.

JOANNE M. BUDZIK
Coatesville, Pa.

● I accidentally tuned in the wrong FM station the other evening at midnight, and after recording what I thought was the Chipmunks I replayed the tape. Well, I wasn't too disappointed, for at either 3¾ or 7½ ips what I had recorded sounded very much like David Seville and his Chipmunks. Unfortunately, it was the Bee Gees.

EDWARD L. DWYER
Manahawkin, N.J.

Design Relevance

● Regarding Julian Hirsch's article in the March 1979 issue, "Distortion, How Small Must It Be?", and Larry Klein's response to the dual-power-supply question in the same issue, I want to tender a corporate "right on" from the folks in the Phase Linear engineering department.

Design philosophy at Phase Linear dictates

that our products deliver optimum value, performance, and reliability in all respects. Practically, this means that several parameters of operation must be evaluated to make a proper judgment as to required slew rate, harmonic distortion, TIM, and so forth. Without such evaluation, many dollars can be poured into a product without any necessary improvement in sonic performance.

The importance of direct-current handling capability in audio is questionable, at best: car radios, tape heads, phono cartridges, and FM broadcasts ignore d.c. The necessity for very high slewing rates is also questionable, for the very same reason. The fact that recording media cannot handle these two aspects of the much-misinterpreted square wave is not as important as the fact that we simply can't find d.c. or very large, very fast transients in any live audio source. However, these non-relevant performance criteria are free, so to speak (they usually do not), and should be passed along to the consumer if for no other reason than to keep these discussions at a minimum so we may more profitably spend our time designing products that deal perfectly with the relevant aspects of audio we can hear.

TERRY L. PENNINGTON
Design Engineer, Phase Linear Corp.
Lynnwood, Wash.

Toscanini's Franck

In his April review of the Guido Cantelli recording of Franck's Symphony in D Minor, Paul Kresh committed an error in saying that Toscanini conducts it as his mentor [Toscanini might have—had he ever condescended to . . .]. Between 1930 and 1946 Toscanini "condescended" to play the Franck Symphony at least eleven times with the New York Philharmonic and the NBC Symphony. Moreover, I have heard a tape of the 1946 performance (the one with the NBC Symphony)—yes, Mr. Kresh—it is much like Cantelli's recording.

EDWARD SICHT JR.
Monongahela, Pa.

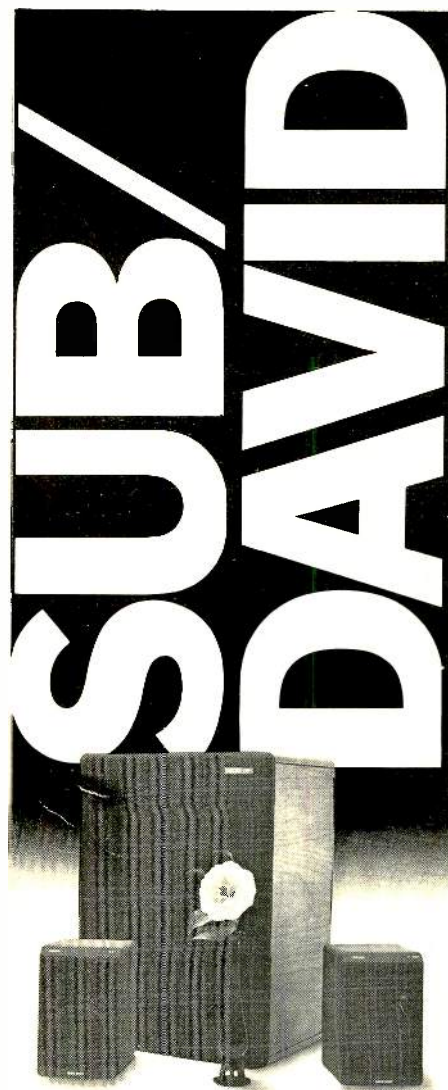
Paul Kresh replies: My casual remark about Toscanini and the Franck symphony was based simply on the fact that no commercial recording of the work by him was ever released. I am happy to learn that he conducted it so many times and would love to hear a tape.

Third World

● I was somewhat surprised and slightly offended when I read the February 1979 review of Third World's "Journey to Addis" and saw them described as a "Bahamian" group. Being an avid fan of theirs, I must correct this error, which I'm sure was not deliberate: Third World is a wholly Jamaican group.

RAYMOND A. DONALDSON
Kingston, Jamaica

Popular Music Editor Paulette Weiss replies: We regret the error. The press release on Third World described them as a Caribbean group, which somehow got translated into Bahamian. They are indeed Jamaican; right neighborhood, wrong address.



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Robin Zander listened to us.

He's the lead singer with Cheap Trick.

Here's what he said about the Jensen System B.

"The sound covers the entire room perfectly. No matter where you are it just fills it all up."

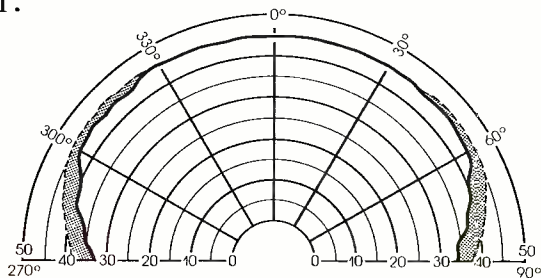
The System B is a vented 4-way, 5 driver loudspeaker system with high efficiency. And low distortion. And wide dispersion.

We've used advanced engineering technology to solve critical engineering problems that have plagued speaker designers for years.

To improve dispersion over the complete frequency range, we symmetrically positioned all four front-firing drivers along the vertical axis of the baffle surface.

What's more, the System B has two specially designed, but different high frequency drivers.

One on the front and one on the rear.



System B Half-space polar response at 5000 Hz. It shows improved dispersion (shaded area) as a result of rear firing driver.

With the System B positioned 12" from a wall, the reflected sound from the rear driver provides an increased sense of depth as well as uniform dispersion throughout the entire listening area.

The result is music that sounds virtually the same whether you're directly in front of the speaker or off to the side.

Robin, a professional musician, sums it up.

"The sound covers the whole area."

This is illustrated in the polar response diagram.

Of course, the system includes a new Impedance Compensated Crossover Network as well as a precision low frequency radiator and upper and lower midrange drivers.

We can't describe everything in this amazing speaker system in detail.

That's why you should go to your audio dealer for a demonstration.

After all, what's most important is how the speaker sounds to you.

You're the ultimate test.

But one more comment from Robin.

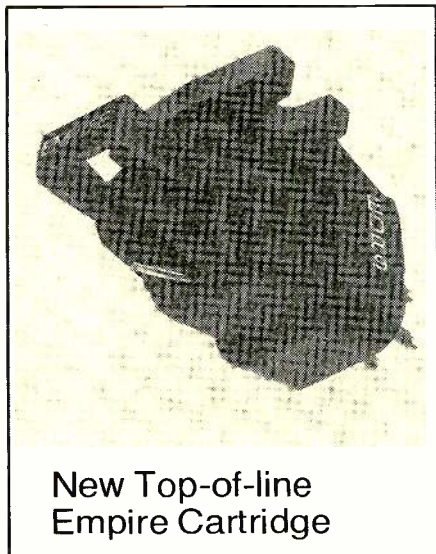
"I listen to music everyday. So when I hear a speaker that sounds good, I get excited about it. This is good and I'm excited."

Listen to our speaker in person. Robin Zander did.

Listen with the professionals.



Listen to JENSEN speakers.



New Top-of-line Empire Cartridge

□ The Empire EDR.9 phono cartridge is a moving-iron design using a "large area contact" stylus-tip shape similar to that of a Shibata stylus in that it provides a long, low-pressure region of contact between the stylus and the groove. The EDR.9 also incorporates a small metal bar resiliently mounted inside the hollow aluminum cantilever tube; this is said to reduce resonance so as to equalize the response of the cartridge. Empire states that the new cartridge is minimally affected by variations in load impedance. Frequency response of the EDR.9 is 20 to 35,000 Hz ± 1.75 dB. Tracking-force range is $\frac{3}{4}$ to $1\frac{1}{4}$ grams, compliance is 28 microdynes per centimeter, output is 4.5 millivolts for a 5-centimeter-per-second lateral velocity, and total cartridge weight is 5.2 grams. Price: \$200.

Circle 120 on reader service card



Yamaha Power Amplifier Has LED Peak Display

□ The Yamaha M-4 power amplifier has a dual array of twenty-six LED's to display the peak power-output level; there is also a LED overload indicator that lights up when distortion in the amplifier's output exceeds 1 per cent. The M-4 is rated at 120 watts per channel into 8-ohm loads from 20 to 20,000 Hz, with total harmonic distortion of 0.005 per

cent or less and intermodulation distortion less than 0.002 per cent. The signal-to-noise ratio is rated at 118 dB using IHF A weighting. Frequency response at 60 watts output into 8 ohms is specified as extending from 0 Hz to 100 kHz $+0$, -1.2 dB in the direct-coupled mode and from 10 Hz to 100 kHz $+0$, -2 dB in the a.c.-coupled mode. The low-frequency filter, which is switched into the signal path in the a.c. mode, attenuates the signal at the rate of 6 dB per octave below 6.4 Hz.

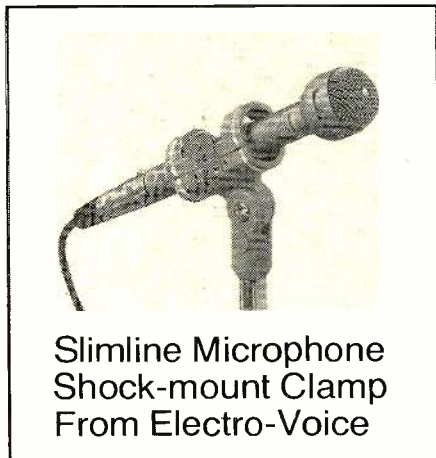
Yamaha states that the output circuit of the M-4 is of the fully complementary push-pull type and uses newly developed power-output transistors designed especially for this unit. The M-4 also includes a load-impedance detecting circuit that cuts the power off when the impedance at the output falls below 2 ohms and a d.c.-detection circuit that disconnects the loudspeakers if direct current appears at the outputs. Front-panel controls include the power switch and pushbutton selector switches for two pairs of speakers; rear-panel controls include two input-level knobs and the a.c./d.c. selector switch. Dimensions are $17\frac{1}{4}$ x $5\frac{3}{4}$ x $14\frac{3}{4}$ inches. The enclosure finish is matte black, and weight is 41 pounds. Price: \$650.

Circle 121 on reader service card



Ariston Turntable From Scotland

□ The Scotland-made Ariston RD11S is a two-speed, belt-drive turntable designed to be used with a separate tone arm (it is shown fitted with an Ultracraft tone arm and Osawa head shell and cartridge). It has an exceptionally heavy (9.5-pound) platter of an aluminum-zinc alloy and a twenty-four-pole synchronous motor. The main bearing is a mirror-finish steel shaft that rotates in a self-lubricating Teflon sleeve. The tone-arm board, motor, and platter are mounted on a subchassis that is in turn suspended from shock absorbers. Wow and flutter is rated at less than 0.05 per cent, and the weighted rumble specification is -80 dB. The RD11S comes with a teak base and hinged dust cover. Dimensions are $17\frac{1}{2}$ x 14 x 6 inches. Price: \$600. For more information, write to Osawa & Co., Dept. SR, 521 Fifth Avenue, New York, N.Y. 10017.



Slimline Microphone Shock-mount Clamp From Electro-Voice

□ Electro-Voice's new Model 313A shock-mount clamp is designed for unobtrusively mounting microphones having barrel diameters of about $\frac{3}{4}$ inch on any standard $\frac{5}{8}$ -inch-thread microphone stand. In use, the clamp suspends the microphone in a network of four replaceable urethane bands. The microphone body can be attached either with an integral hinged-metal latch for a quick temporary mount or with a set-screw assembly for longer-term applications. The 313A is constructed of polycarbonate plastic and metal. Price: \$22.95.

Circle 122 on reader service card



Nortronics' Video-recorder Maintenance Kit

□ Nortronics Company of Minneapolis, a major manufacturer of tape heads and supplies, has introduced the VCR-95, a maintenance kit for videocassette recorders. The kit contains twenty cellular-foam cleaning swabs, a spray cleaner specifically developed for head-cleaning applications, a special screwdriver, a dust cloth, and instructions for cleaning both VHS and Beta-format recorders. Price: \$12.80.

Circle 123 on reader service card

(Continued on page 22)

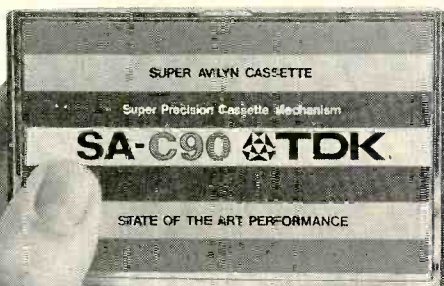
The standard bearers.



The high bias standard.

In the past few years, these fine deck manufacturers have helped to push the cassette medium ever closer to the ultimate boundaries of high fidelity. Today, their best decks can produce results that are virtually indistinguishable from those of the best reel-to-reel machines.

Through all of their technical breakthroughs, they've had one thing in common. They all use TDK SA as their reference tape for the high bias position. These manufacturers wanted a tape that could extract every last drop of performance from their decks and they chose SA.



And to make sure that kind of performance is duplicated by each and every deck that comes off the assembly line, these manufacturers use SA to align their decks *before* they leave the factory.

Which makes SA the logical choice for home use; the best way to be sure you get all the sound you've paid for.

But sound isn't the only reason SA is the high bias standard. Its super-precision mechanism is the most advanced and reliable TDK has ever made—and we've been backing our cassettes with a full lifetime warranty* longer than anyone else in hi fi—more than 10 years.

So if you would like to raise your own recording standards, simply switch to the tape that's become a recording legend—TDK SA. TDK Electronics Corp., Garden City, NY 11530.



The machine for your machine.

In the unlikely event that any TDK cassette ever fails to perform due to a defect in materials or workmanship, simply return it to your local dealer or to TDK for a free replacement.

CIRCLE NO. 63 ON READER SERVICE CARD

FOR THE RECORD



NAGATRON



There is a new reference standard in phono cartridges. The name is Nagatron. And the difference is clear.

Samarium-cobalt magnets, crystalline aligned diamonds and an array of cantilever constructions are but a few of the latest advances employed in Nagatron cartridges to deliver the clean transients and tonal clarity available from your record grooves.

On the record, it's the best you can do for your records

NAGATRONICS CORP.
2280 Grand Avenue, Baldwin, NY 11510

New Products

latest audio equipment and accessories



Audiotex Combines Destaticizer and Record Cleaner

□ Audiotex, a division of GC Laboratories, has introduced the RC-2000 record-cleaning device, which combines the functions of a destaticizing tool and a record brush. The RC-2000 contains a piezoelectric cell that emits alternate streams of positive and negative ions as the device's trigger is pressed and then released. The ions are discharged directly onto the record surface through a tube and needle outlet on the underside of the handheld device.

On the underside of the RC-2000 are several rows of fine nylon bristles and a natural-silk velvet pad; these act together to dislodge and then pick up dust that previously had been statically bound to the record surface. Price: \$24.95.

Circle 124 on reader service card



Sansui Receiver Features Wide-band Frequency Response

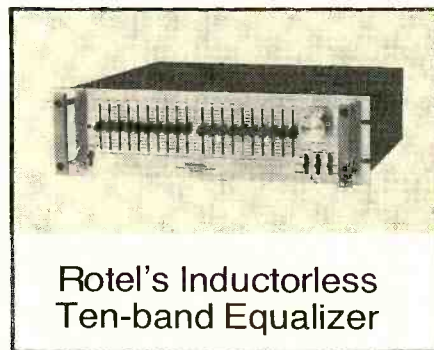
□ The power-amplifier section of Sansui's G-7500 AM/FM stereo receiver has a rated frequency response of 0 to 200,000 Hz (-3 dB) and a slew rate of 60 volts per microsecond. Sansui states that the wide frequency response and absence of blocking capacitors in the signal path of the amplifier stages have significant benefits in terms of

transient response. The G-7500 is rated at 90 watts per channel into 8-ohm loads from 20 to 20,000 Hz with total harmonic distortion of 0.025 per cent or less. Intermodulation distortion is also rated at 0.025 per cent or less.

The preamplifier section of this receiver has a signal-to-noise ratio of 78 dB (measured using current IHF methods) and RIAA-curve accuracy to within 0.2 dB of ideal. The maximum undistorted input capability of the phono preamplifier stage is 240 millivolts. The unit has bass and treble controls that afford ± 10 dB of adjustment at nominal 50- and 10,000-Hz turnover points, infrasonic and high filters that attenuate at the rate of 6 dB per octave below 16 Hz and above 3,000 Hz, respectively, and an audio-muting switch that attenuates the output by 20 dB. The loudness-compensation circuit boosts output by a maximum of 8 dB at 50 Hz and 6 dB at 10,000 Hz.

The FM tuner of the G-7500 has a usable sensitivity of 1.8 microvolts (10.3 dBf), sensitivity for 50-dB quieting in stereo of 34.7 microvolts (36 dBf), and a signal-to-noise ratio (for a 65-dBf input) of 58 dB in stereo. Total harmonic distortion of the FM section for the same 65-dBf input level is 0.18 per cent at 1,000 Hz in stereo. Capture ratio is 1 dB, alternate-channel selectivity is 75 dB, and stereo separation is 42 dB at 1,000 Hz. Front-panel features of the unit include dual power-output meters and dual tuning meters, a microphone mixing jack and level control, switching for two pairs of speakers, switchable FM de-emphasis, a tone-control defeat switch, and two tape-monitor pushbutton switches. The G-7500 has a simulated-rosewood-grain enclosure, and its dimensions are approximately 20 x 7 $\frac{1}{8}$ x 16 $\frac{1}{8}$ inches. Price: \$620.

Circle 125 on reader service card



Rotel's Inductorless Ten-band Equalizer

□ The Rotel RE-2000 is a ten-band stereo equalizer that offers a ± 12 -dB range of adjustment at ten frequencies spaced approximately one octave apart: 32, 63, 125, 250, 500, 1,000, 2,000, 4,000, 8,000, and 16,000 Hz. The RE-2000's controls are of the linear sliding type, and separate sets of controls permit individual adjustment for each channel. The equalizer circuits use transistors and passive

(Continued on page 24)



Clean look, clean sound.

That clean, open look of these new Crown components is intentional. The *Power Line One* amp and the *Straight Line One* pre-amp are designed for people who delight in accurate sound reproduction, whose joy is in listening, and for whom simplicity of operation is important.

They are obviously easy to operate, yet all the basic controls you need for accurate reproduction and monitoring of fine quality sound are there.

But your greatest enjoyment will surely come from the unusual sonic accuracy of these units. They are acoustically as transparent as can be imagined.

Achieving that purity of sound and function wasn't simple. We've had 27 years experience in building state-of-the-art audio components, such as the world-famous DC-300A high-power amp and the newer DL-2 digital logic pre-amplifier. We've learned a great deal about what can and cannot be done with circuit design, with transistors and with IC's.

That experience is reflected in new computer-aided circuit designs. In the *Straight Line One* phono pre-amp section, for instance, internal noise is so low that thermal noise from your cartridge will be the dominant source of noise.

This circuit technology has also made possible other features you're bound to enjoy. The phono pre-amp is a separate module, much like the system developed by Crown in the DL-2. It eliminates troublesome RFI. Note also that Crown put distortion indicators on *both* units. The amplifier has both the unique Crown IOC circuit plus new peak output voltage LED's. Front-panel speaker switching and a new concept in DC speaker protection provide flexibility of layout and security of operation at high levels.

Please don't take our word for all of this. Visit your Crown dealer soon. Listen to the clean, full range sound of the *Straight Line One* and the *Power Line One*. That experience should simplify your buying decision.

SPECIFICATIONS

	Frequency Response, 20 Hz-20 KHz	Phase Response 20 Hz-20 KHz	Hum and Noise dB below rated output		IM Distortion at rated output, Max.	Total Harmonic Distortion at rated output 20-Hz-20 KHz, Max.
			unweighted	"A" weighted		
Straight Line One 2-channel pre-amplifier Switching module	±0.1 dB	±10°	97	101	0.00055%	0.0009%
Phono pre-amp (RIAA)	±0.5 dB	±5°	88	94	0.0005%	0.002%
Power-Line One 2-channel amplifier	±0.1 dB	+10° to -15°	110	115	0.00095%	0.05%

Power rating: 50 WATTS/CH. MIN RMS INTO 8 OHMS, 20 Hz-20 KHz, THD 0.05%.
80 WATTS/CH. MIN RMS INTO 4 OHMS, 20 Hz-20 KHz, THD 0.05%.

CROWN products are available outside the U.S.A. under the brand name AMCRON.



1718 W. Mishawaka Road, Elkhart, Indiana 46514

American innovation and technology...since 1951.

FREE

details... **A DIFFERENT KIND OF RECORD CLUB**

You can now own every record or tape that you may ever want... at tremendous savings and with no continuing purchase obligations. You can get valuable free dividend certificates, you can get quick service and all the 100% iron-clad guarantees you want.

Now you can stop price increases that leave you with less music for your record and tape budget. You can guarantee yourself more music for less money through membership in Discount Music Club.

Look at these benefits:

TREMENDOUS SAVINGS

on every record and tape in print—no "agree-to-purchase" obligations of any kind.

DISCOUNTS OF 43% TO 73%

off mfg. suggested list... special catalog features hundreds of titles and artists.

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lists thousands of titles; classical, pop, jazz, ballet, opera, musical shows, folk, rock, vocal, instrumental, country, etc.

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happenings in the world of music; concerts, critiques, new releases... special super-sale listings at discounts of up to 73%.

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Diamond needles, cloths, tape cleaners, etc. Discount Music Club is your complete one stop music and accessory buying service.

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same day shipping on many orders... rarely later than the next several days. Partial shipments always made in the event of unforeseen delay... all at no extra cost to you.

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Discount Music Club is a no-obligation membership club that guarantees tremendous discounts on all stereo records and tapes and lets you buy what you want... when you want... or not at all if you choose.

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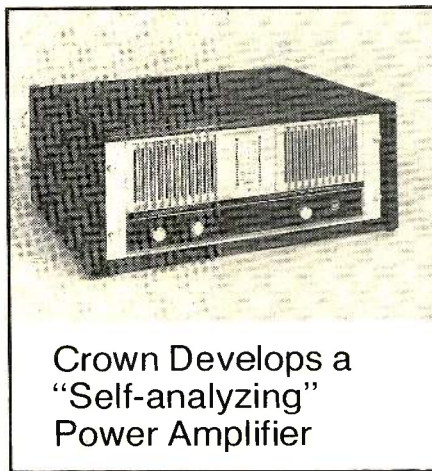
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components in a design configuration Rotel calls an "Inductorless Active-Resonant Circuit," an approach said to eliminate the electromagnetic induction of hum and noise sometimes associated with models that use inductors. The RE-2000 has front-panel switches that control two tape-monitor circuits with dubbing facilities, a bypass switch to compare the sound of an equalized vs. an unequalized program, and an output-level control. Total harmonic distortion is rated as below 0.005 per cent, signal-to-noise ratio is 100 dB or greater (measured through the IHF A network), and frequency response extends from 0 to 100,000 Hz -1 dB. The RE-2000 is rack-mountable and comes with rack handles. Dimensions are approximately 19 x 5½ x 13¾ inches. Price: \$370.

Circle 126 on reader service card



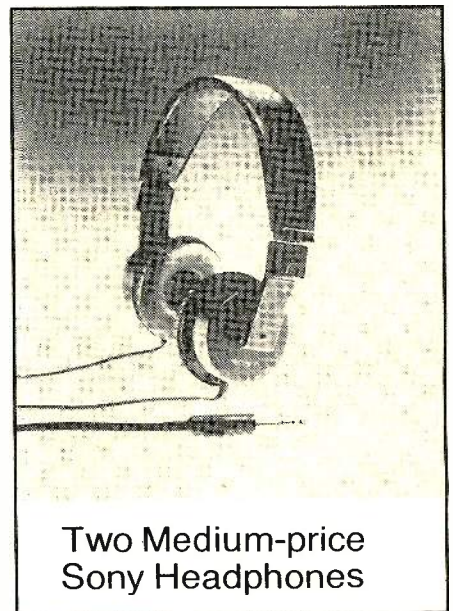
Crown Develops a "Self-analyzing" Power Amplifier

□ As part of its Distinction Series of components, Crown has introduced the SA2, a 220-watt-per-channel power amplifier that uses a "self-analyzing" protection circuit to avoid the sonically deleterious side effects said to be characteristic of some conventional protection circuits. The SA2's protection system is an analog circuit that examines the operating conditions of the output transistors and limits the power output of the amplifier only when their margins of safety will be exceeded rather than limiting power output at some predetermined voltage or current level. As a result, the SA2 is said to be capable of very high power outputs over a brief period; for example, Crown states that the SA2 has an instantaneous output capability of 900 watts per channel into a 4-ohm load and 1,500 watts per channel into a 2-ohm load (the input in both cases being a pink-noise signal). Other interesting features of the SA2's design include two separate power supplies (one for each channel), a heat-sink configuration that employs a two-speed cooling fan to move air past an array of exceptionally thin (and therefore thermally efficient) heat-sink fins, and power transformers that are shock-mounted to minimize chassis vibration.

The front panel of the SA2 amplifier has two multi-LED output-level indicators that display a range of 42 dB; the indicators both display instantaneous peaks and hold the highest peak-signal level. The two uppermost LED's are illuminated when significant distortion appears at the output of the amplifier (they are part of an input-output comparator circuit of the same type as that used on a number of other Crown products). Other front-panel controls include the two input-level knobs, the power switch, and an amber standby light that glows when the amplifier is first turned on or when the power supplies disconnect from the remaining circuits in response to overheating or the appearance of direct current at the outputs.

The SA2's specifications include frequency response of 0 to 50,000 Hz ± 1 dB in the direct-coupled mode, total harmonic distortion of 0.05 per cent or less, intermodulation distortion of 0.01 per cent or less, and a signal-to-noise ratio of 115 dB (A-weighted) below rated output. The slewing rate of the amplifier is 30 volts per microsecond or more, and mono output with the two channels combined is 700 watts into 8 ohms measured at a distortion level of 0.12 per cent. Dimensions are 19 x 14¾ x 7 inches. Price: \$1,595.

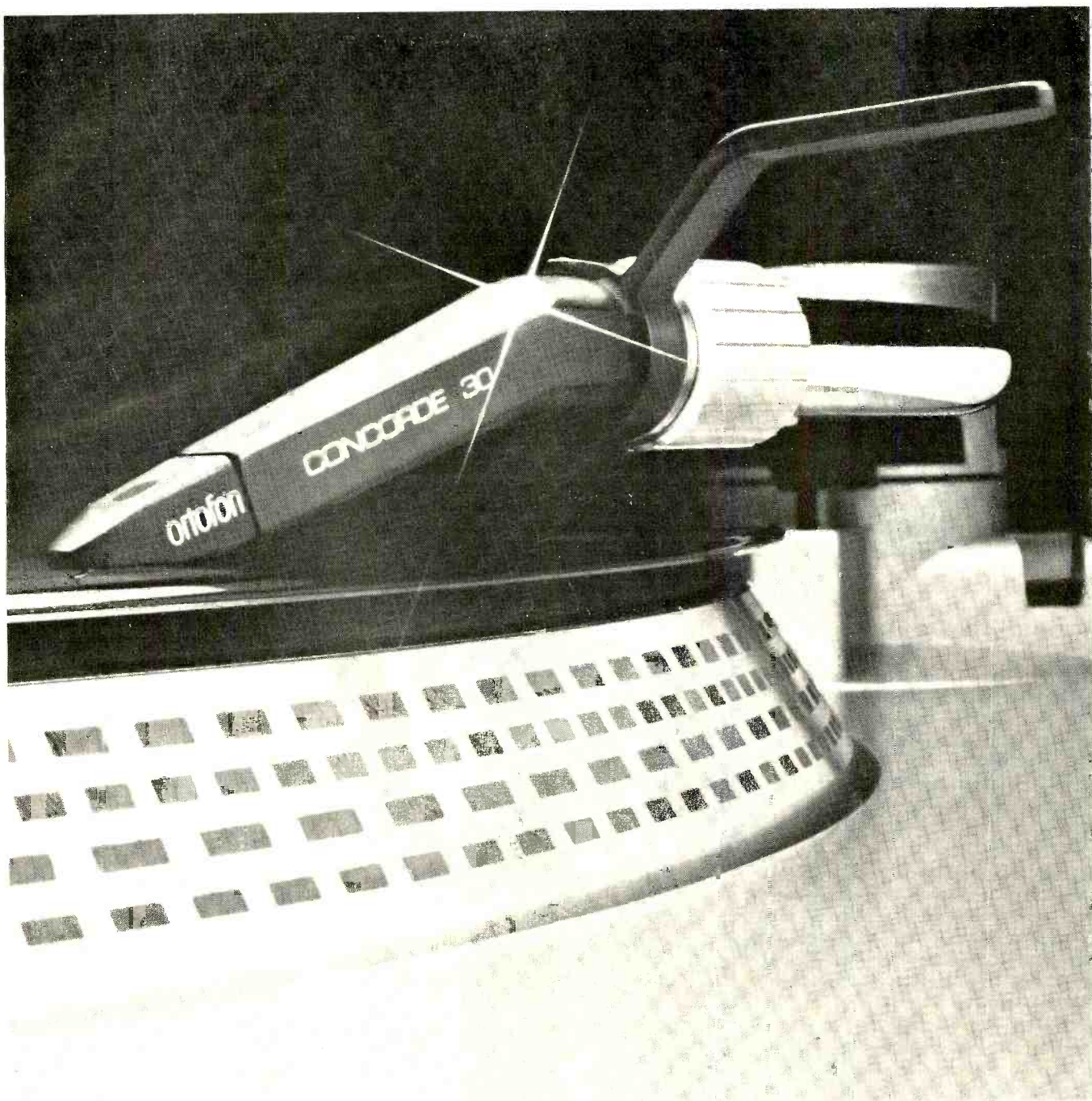
Circle 127 on reader service card



Two Medium-price Sony Headphones

□ Sony has introduced two medium-price headphones, one a sealed-earcup type, the DR-2, and the other a folding pocket-size unit, the DR-6M (shown). The DR-2 is equipped with two 70-millimeter cone-type driver units. Frequency response is specified as 20 to 20,000 Hz, sensitivity is 104 dB for a 1-milliwatt input, nominal impedance is 10 ohms, and maximum power input is 100 milliwatts. The headphones have a coiled two-

(Continued on page 26)



LAUNCHING A NEW ERA IN THE REPRODUCTION OF MUSIC FROM RECORDS.

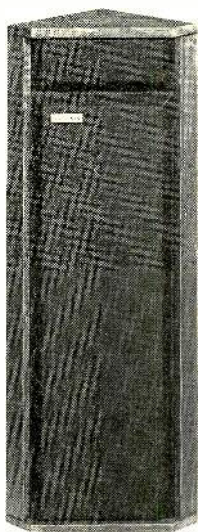
A strong claim, but true. The Concorde combines a cartridge and headshell in a single form, but weighs less than most headshells alone. The reduction in record wear and distortion, and the ability to track accurately despite warpage, pay incalculable dividends to music lovers.

Ortofon dealers are now ready to demonstrate the Concorde. It's worth a visit just to see and hear this remarkable cartridge that stands at the very frontier of music reproduction technology. For complete information write: Ortofon, 122 Dupont Street, Plainview, New York 11803.

ortofon 

ALLISON: THREE

The Elegant Solution



With few exceptions, loudspeaker systems have always been designed to have flat response in anechoic chambers (test rooms with completely sound-absorptive boundaries).

This is odd, because loudspeakers are hardly ever used in anechoic environments. Most are used in domestic living rooms. Recent research shows that a real room changes a loudspeaker's performance drastically, and designing for flat response in an anechoic chamber simply doesn't make sense any more.

The most intense room effects occur when a loudspeaker is used in a corner, where reflections from the nearby room surfaces can cause a variation of 20 dB in acoustic power output. A corner, therefore, is the worst place to put a conventional loudspeaker system.

But if a corner imposes the most severe penalty for a misdirected design, it also gives the reward of maximally enhanced performance for a loudspeaker system correctly matched to that location. The woofer's radiation load, when stabilized by proper design, will be at its peak value in a corner.

The ALLISON: THREE™ Room-Matched™ loudspeaker system is the only high-fidelity speaker designed for proper use in a room corner that we know of, except for very much larger and more expensive corner horn enclosures. It is the elegant solution to the loudspeaker/room interface problem.

Price of the ALLISON: THREE system is \$290.* Descriptive literature, complete specifications, a statement of Full Warranty for Five Years, and a list of dealers are available on request.

*Higher in the South and West because of freight cost.

ALLISON ACOUSTICS

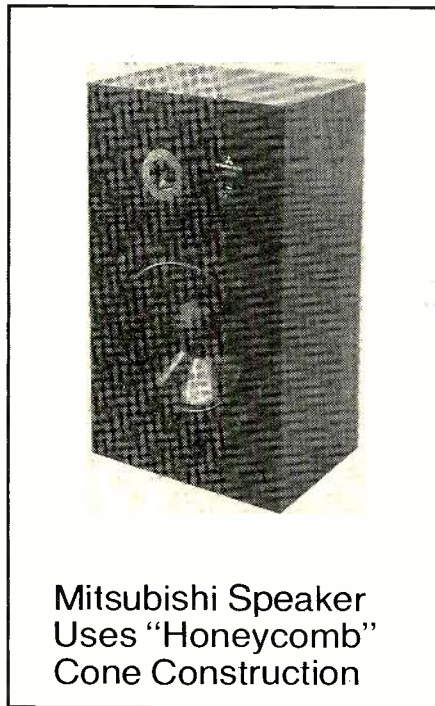
7 Tech Circle, Natick, Massachusetts 01760
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meter cord; weight is 300 grams (11 ounces). Price: \$22. The DR-6M uses two 50-millimeter cone-type drivers joined by a folding head band. Frequency response is rated at 20 to 20,000 Hz, efficiency is 110 dB for a 1-milliwatt input, nominal impedance is 28 ohms, and maximum power input is 100 milliwatts. Weight is 350 grams (12.5 ounces). Price: \$58.

Circle 128 on reader service card



Mitsubishi Speaker Uses "Honeycomb" Cone Construction

□ The Mitsubishi MS-20 is a two-way acoustic-suspension loudspeaker whose bass-driver cone is a honeycomb structure of hexagonal aluminum cells sandwiched between two layers of glass-fiber-reinforced plastic. The advantages of this approach, according to Mitsubishi, include a high stiffness-to-weight ratio and substantially reduced harmonic distortion. Diameter of the MS-20's bass driver is 12 inches; that of its cone-type treble unit is 2 inches. The crossover between them takes place at 1,500 Hz. Nominal impedance of the system is 6 ohms; impedance is 3 ohms at 2,000 Hz. Frequency response is rated as 35 to 20,000 Hz ± 4 dB, power-handling capacity (measured using IEC methods) is 120 watts, and sensitivity is 88 dB output for a 1-watt input as measured at a 1-meter distance. The enclosure of the MS-20 is finished in walnut. An "edgeless" style of construction is used in conjunction with flush mounting of the drive units to reduce unwanted diffraction effects. A four-position rotary tweeter-level control is also flush mounted on the front panel. Dimensions are 24 $\frac{3}{4}$ x 14 $\frac{1}{2}$ x 11 $\frac{1}{8}$ inches. Price: \$250.

Circle 129 on reader service card



New Direct-drive Motor in Garrard Turntables

□ Garrard has introduced two turntables, the DD131 and DD132 (shown), with a newly designed direct-drive motor that is said to be free of "cogging" (moving in subtly discrete rotational increments). The motor is slotless, brushless, and coreless, permitting the force that controls its rotation to be applied evenly throughout each revolution. Speed is controlled by a servo system that operates by what Garrard calls "Time Integral Velocity" monitored by a Hall-effect control circuit.

Both new turntables share the same tone-arm design. The arm has a 9/4-inch effective length, an S-shaped aluminum shaft, and a magnesium head shell; total effective mass is 12 grams. The tone-arm system has jeweled bearings. The DD131 and DD132 have rumble specifications of -70 dB (DIN-B weighting), and wow and flutter is 0.06 per cent or less. Both have Garrard's "Delglide" cycling mechanism, which makes extensive use of low-friction synthetic materials, and both are single-play units, the difference being that the DD131 is semi-automatic and the DD132 fully automatic. Dimensions for both are 17 $\frac{3}{4}$ x 5 $\frac{5}{8}$ x 13 $\frac{3}{4}$ inches including base and with dust cover in place. Prices: DD131, \$189.95; DD132, \$200.

Circle 130 on reader service card

A Source for Budget Audio Gear

□ The Electronic Supermarket specializes in overruns and closeouts of electronic products, including amplifiers, completed and kit speakers, cabinets, and video equipment. A catalog is available for \$1. Write to the Electronic Supermarket, Dept. SR, P.O. Box 619, Lynnfield, Mass. 01940.

(Continued on page 28)



Scotch® Recording Tape... it sounds like money well spent.

To get the best out of your expensive cassette system, nothing but the best will do. The little extra you pay for a Scotch® Master™ Cassette is *truly* money well spent — because nobody delivers a truer, clearer sound.

The Scotch Master Series offers three totally different oxide formulations, each designed for a specific bias/EQ switch position.

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

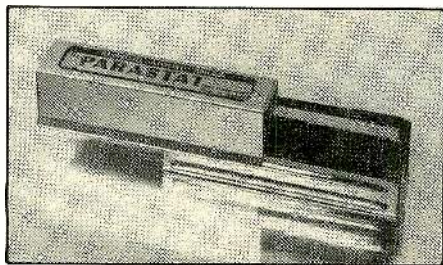
chrome-equivalent bias recording (70 microsecond equalization). It gives a 3 dB better signal-to-noise ratio at low and high frequencies than chrome cassettes. Our Master III Cassette is a ferri-chrome formulation (FeCr) with a 3 dB output improvement at low frequencies and 2 dB at high frequencies.

All three tapes are housed in transparent shells and equipped with precision guidance systems. Technology this advanced doesn't come cheap. But when you hear how magnificently the Scotch Master Series lets the truth come out, you'll agree that for the slightly higher price — you've got something priceless.

Scotch® Recording Tape. The truth comes out.

3M

The Watts Parastat



**In 15 seconds
your records are
clean, dry,
and ready to play.**

With some systems you pour liquid on your records (and rub it into the grooves), while with others you brush the dirt around (and rub it into the grooves). The Watts Parastat is neither of these.

By placing a plush velvet pad on either side of a soft nylon brush and adding a drop or two of Parastatik[®] fluid, a remarkably efficient system is created.

The brush bristles lift the rubbish to the surface. The pads collect and remove it. And the Parastatik[®] fluid supplies just the right degree of humidity to relax dust collecting static without leaving any kind of film or deposit behind.

No other system does so much for your records in so little time.

So when you want the best, ask for the original. The Parastat, by Cecil Watts.

Cecil & Watts Ltd

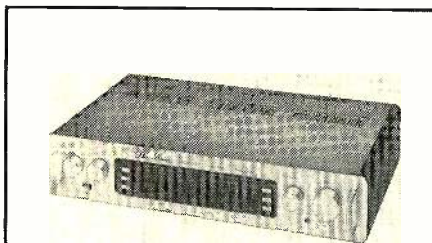
Watts products are distributed exclusively in the U.S. by: Empire Scientific Corp., Garden City, NY 11530

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Akai's Full Line Is Described in Latest Catalog

□ Akai has published a fifty-six-page pocket-size catalog containing descriptions, selected specifications, and color photos of every product in the Akai audio-component line, plus a brief glossary of hi-fi terms. The catalog includes a reader-inquiry card by means of which consumers may send for more detailed information about particular products. For a copy of the catalog, write to Catalog, Akai America, Ltd., Dept. SR, P.O. Box 6010, Compton, Calif. 90224.



Relay Source Switching in Phase Linear Preamp

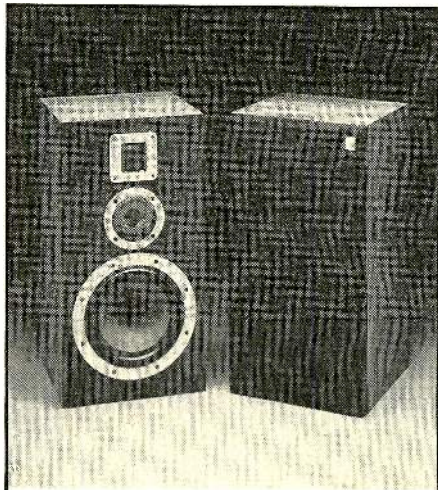
□ Phase Linear's Model 3000 preamplifier uses logic circuits and thirteen relays to select input sources, thereby avoiding routing phono-level signals through a longer signal path than necessary.

Total harmonic distortion is rated at less than 0.04 per cent. The rated signal-to-noise ratio is greater than 90 dB for the moving-magnet phono input, greater than 78 dB for the moving-coil phono input, and greater than 91 dB for high-level inputs. The input capacitance of the moving-magnet phono stage can be switched to 150, 225, or 420 picofarads, and the input resistance of the moving-coil input to 50, 200, or 500 ohms. The phono stages adhere to the RIAA curve within 0.3 dB. The moving-magnet phono stage accepts an input of up to 120 millivolts, the moving-coil phono stage up to 12 millivolts.

The Model 3000 has two defeatable tone controls, each of which has two switch-selectable turnover points: bass-control turnover points are 50 or 150 Hz and the treble control's are 2,000 or 5,000 Hz. The preamplifier also has a switchable low-frequency filter that attenuates at the rate of 18 dB per octave below 15 Hz. A headphone amplifier with a 200-milliwatt output and total harmonic distortion below 0.07 per cent is incorporated in the

preamplifier; provisions for two tape recorders (with dubbing capability), a muting switch, and a detented volume control are also included. Dimensions are 19 x 3½ x 8 inches. Price: \$499.

Circle 131 on reader service card



Wharfedale Speaker Uses Flat-diaphragm "Isodynamic" Tweeter

□ The Wharfedale L300 loudspeaker system has a tweeter that consists of a flat sheet of plastic film (on which a voice coil has been printed) suspended between two panels of rare-earth magnets. The design, which Wharfedale calls an "Isotweeter," is said to have very low mass and high power-handling capability because of the unusual voice-coil construction, which drives the diaphragm uniformly over most of its surface. The L300 is a three-way, acoustic-suspension system with a 10-inch roll-surround bass driver, a 4-inch plastic-diaphragm mid-range unit, and the Isodynamic tweeter. Crossover frequencies are 1,000 and 5,500 Hz. Frequency response of the L300 is 38 to 26,000 Hz ±3 dB, nominal impedance is 6 ohms, and sensitivity for a 1-watt input is 88 dB measured at a 1-meter distance. Peak power-handling capacity of the L-300 is 90 watts. The enclosure is finished in walnut veneer and has dimensions of approximately 23 x 13¾ x 13¾ inches. Price: \$275.

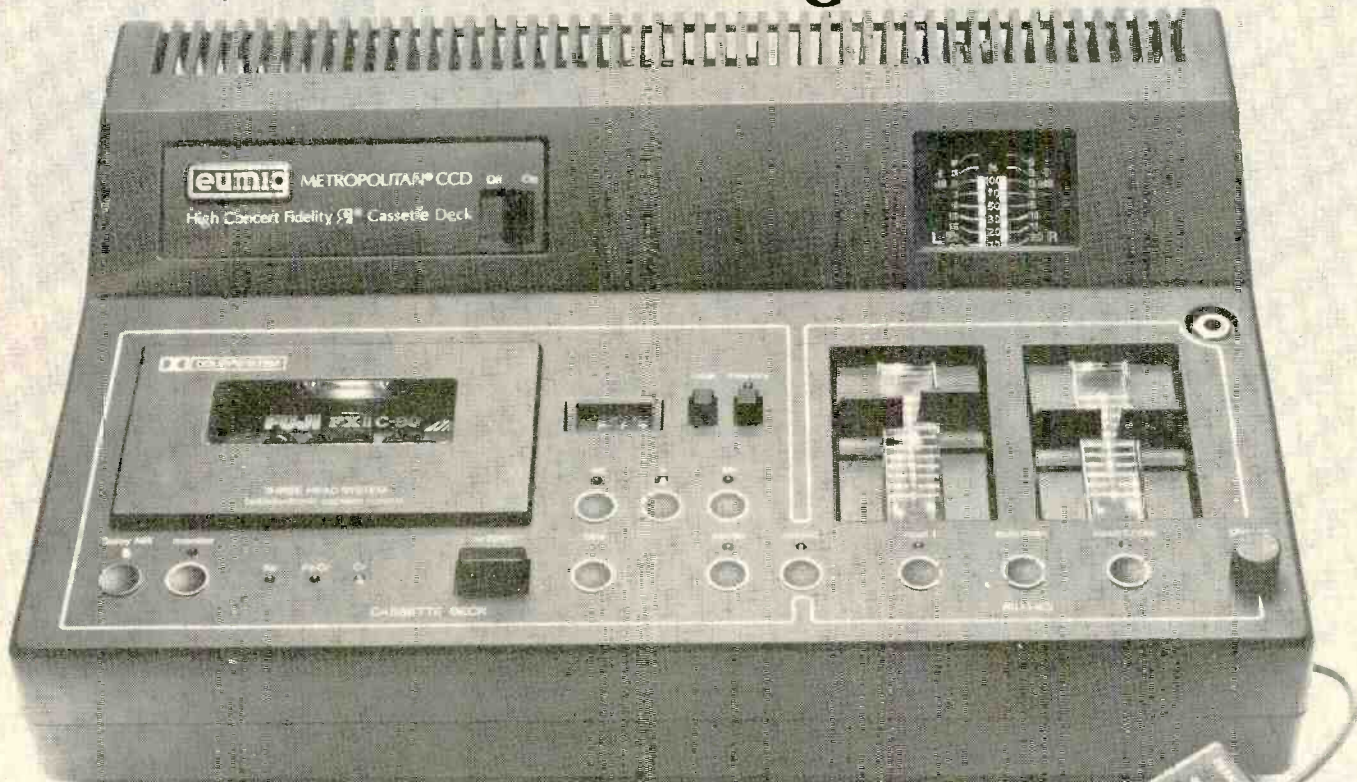
Circle 132 on reader service card

NOTICE: All product descriptions and specifications quoted in these columns are based on materials supplied by the manufacturer.

Recent fluctuations in the value of the dollar will have an effect on the price of merchandise imported into this country. Please be aware that the prices quoted in this issue may be subject to change.

The Eumig CCD.

Opto-electronically engineered for absolute recording excellence.



Eumig, one of the world's leaders in electro-mechanical research and development, has introduced a revolutionary new technology to cassette recording. It's the OPTO-ELECTRONIC SERVO CAPSTAN DRIVE SYSTEM incorporated in the unique Eumig CCD. This technology offers so many advantages that the Eumig CCD will out-perform every other cassette transport.

Ultra-Precision: The unique Eumig photo disc

Other decks use old-fashioned belts and flywheels to control the capstan. In the Eumig design these are replaced by a light-weight disc, photo-etched with 2500 radii, spaced precisely 1/50mm apart. When rotated, these radii create 15,000 pulses per second for instantaneous optically-sensed speed corrections. Wow and flutter is a mere 0.05% WRMS, and speed accuracy is $\pm 1\%$.



The Eumig photo disc weighs about 1/70th as much as a typical flywheel. When combined with an almost inertia-free, coreless drive motor, the CCD offers a startup time of less than 0.04 seconds, which means you never hear the wowing sound after a pause in recording. And the CCD boasts the fastest rewind time in the world—an astonishingly low 40 sec. (C-60).

Rugged reliability

The Opto-Electronic Servo System is only one among many dramatic advantages of the Eumig CCD. It offers three precision heads of our own design, mounted in a die-cast aluminum carrier made at our own facilities (as are virtually all parts of the CCD), for greatest precision. The Eumig CCD is engineered

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Advanced technology features

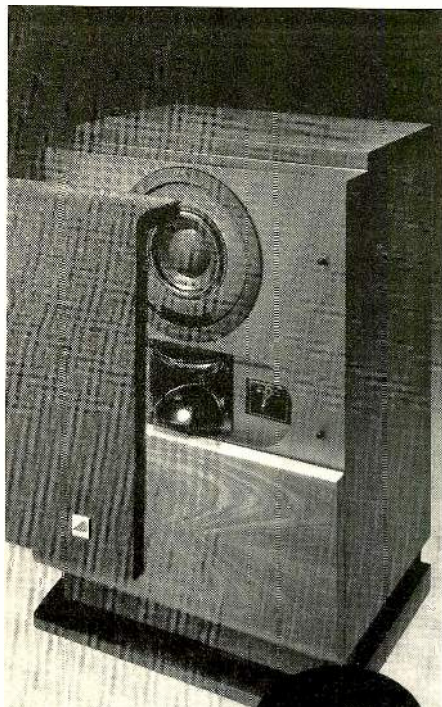
The comprehensive features of the CCD reflect Eumig's innovative technological approach. Two parallel LED displays allow simultaneous monitoring of both channel levels. Full solenoid/MOS logic is operated by feather-touch controls with logic-programmed LED indicators, and the flexible two-input mixing facilities use strictly DC controlled circuitry.

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Interface:D™

Audio Q. and A.

By Larry Klein

Technical Director Klein at the employees' entrance of the AKG plant in Vienna.



Power vs. Volume

Q. I recently bought a new turntable and a very expensive phono cartridge. Everything works fine except that the volume control on my preamplifier must be turned up much higher for the same level of sound. Did I lose amplifier power as a result of mismatching, and, if so, how can I adjust for it?

GEORGE GARLIND
Brooklyn, N.Y.

A. This question, in various permutations, is a common one—and, unfortunately, one that is difficult to answer simply. First of all, it is necessary to understand that the volume-control setting on an amplifier, preamplifier, or receiver does not necessarily have a one-to-one relationship with either the amount of sound coming out of the speakers or the amount of power that the amplifier is supplying to them. Think of the volume control simply as a valve controlling the amount of signal passing through its particular section(s) of the amplifier. In other words, a volume control can only *reduce* the level of the signal going through it; a volume control that is turned full up is, in effect, removed from the signal path. Since your new phono cartridge supplies less signal to your preamp than was provided by your previous cartridge, the volume control must be set higher to achieve the same sound level. This is completely normal, and the same thing could happen if you were to switch to, say, a new tuner or tape deck and their output-signal levels were lower than those of your previous units. And if you were to switch to lower-efficiency speakers or a power amplifier with lower input sensitivity, your preamplifier's volume control would in those cases also have to be set higher to get the same audible level.

As long as the signal level supplied by a phono cartridge or other program source is never so high that the amplifier being used is overdriven (overloaded), then the volume-control setting has nothing to do with the power rating. For example, suppose you have two power amplifiers, one of which is rated at 40 watts per channel and the other at 100 watts per channel. And suppose further that the 40-watt amplifier can be driven to its full output with a 0.25-volt input signal whereas the 100-watt unit needs about 0.5 volt from the preamp to reach the same 40-watt level.

(A still greater input signal is, of course, needed for it to reach the 100-watt level.) What will happen is that the 40-watt amplifier will play louder than the 100-watt one given the same normal preamp volume-control setting.

I suspect that a good part of the confusion between power and gain in hi-fi results from an improper analogy with sports-car performance. A car's ability to achieve a high speed in a short time is a pretty good indication that there's lots of power under its hood. Unfortunately, neophyte audiophiles often conclude (erroneously) that components whose volume controls are designed to "come on fast" are somehow providing more power than those units with a slower, normal control taper. As long as the volume control does not have to be set so high that amplifier noise becomes audible or so low that it becomes "touchy," you can safely assume that everything is operating at the right signal level and that full output from your amplifier—whatever its wattage may be—will be available when it is required by the music.

Carbon-fiber Components

Q. As a tennis buff, I've gotten used to seeing the buzz words "carbon fiber" and "graphite" in advertisements for high-price rackets. Now carbon fiber seems to be cropping up in audio products such as tone arms and speaker cones. What exactly is this stuff, and what does it do for audio performance?

IAN HOLCOMB
Georgetown, Md.

A. I've learned there are those who also consider audio a "high-price racket," so the association of these two areas is not that remote. In any event, my experts tell me that there are several different types of carbon fiber, but the one used in both tennis rackets and tone arms actually consists of separate, very fine strands of pure crystalline carbon in an epoxy-resin binder. This fiber-and-resin "composite," as it is called, has several properties that make it very attractive to designers of both tennis rackets and tone arms. It is, among other things, very rigid, low in mass relative to its volume, inherently well damped, and nonresonant. When carbon fiber is used in tone arms, it is either applied to the metal shank of the arm as a sort of coat-

ing to strengthen it and improve damping or else it is an ingredient in the molded-epoxy tubular shank itself. In making speaker cones, the carbon fiber is added to the "slurry" (a liquid mixture of wood pulp, water, and heaven only knows what else) from which the cones are molded. As part of the cone material, the carbon fibers help stiffen the cone and damp out internal resonances and vibration transmission. Besides tone arms and speaker cones, carbon fiber is also used in the audio field in making phono-cartridge head shells. In each case, the advantages sought from its use derive from the material's low relative mass, high strength, and high internal damping.

Line Inputs

Q. When writing about equipment, Julian Hirsch and Craig Stark frequently refer to "line" inputs or outputs. What kind of line are they talking about?

CHARLES DEVIS
St. Paul, Minn.

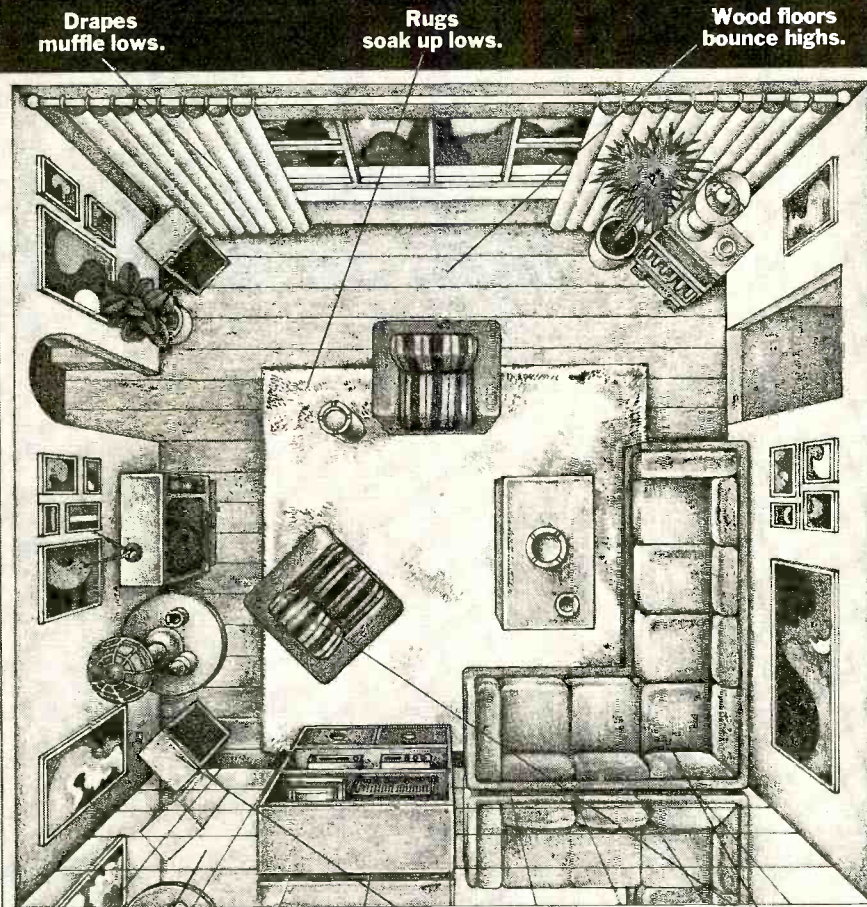
A. The term "line" used in connection with hi-fi equipment (as opposed to that used to facilitate social encounters) was adopted from broadcast and recording-studio usage. In such commercial applications there are actually several commonly used "standard line levels" which indicate whether the input and output circuits of various pieces of equipment can be interconnected without running into problems of noise, distortion, or inadequate signal strength. (The term "level" refers to both the signal level and the effective impedance.) The specific levels and impedances involved in professional use need not concern us here, since they are of no practical significance in home hi-fi equipment.

As it appears in current hi-fi literature—including the present IHF amplifier standard—"line" is synonymous with "high-level," which in turn refers to the characteristics of any jack designed to provide (or accept) audio-signal voltages from about 0.1 volt up to several volts. The IHF amplifier standard defines "line input" as: "Any set of input terminals of an amplifier whose primary function is to accept line-level input signals, normally construed to mean input levels in excess of 25 millivolts." I think I was out of town during the Standards Committee meeting at which the 25-mV figure (which seems too low to me) was adopted, but the intention of the figure is clear: to distinguish high-level inputs from low-level *phono* or *microphone* inputs, both of which are designed to accept voltages with an average signal level of, say, 10 mV or so. In home hi-fi usage, there's no agreed-upon impedance for the line input, although one can assume that a jack labeled "line" (or, more frequently, "aux.," which should have the same characteristics) will usually have an input impedance of 50,000 ohms or higher.

Note that when the input impedance of a power amplifier is 25,000 ohms or less it may cause some low-bass loss in preamps not designed to feed that low an impedance.

Because the number of questions we receive each month is greater than we can reply to individually, only those letters selected for use in this column can be answered. Sorry!

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Audio Basics

By Ralph Hodges



FROM INFRASONIC TO ULTRASONIC

WE'VE all heard of *infrared* and *ultraviolet* light. The terms refer to the vast number of light waves that lie below the ruby red and above the subdued violet that mark the frequency limits of the light spectrum visible to the human eye. But invisibility does not automatically mean imperceptibility: as visitors to high mountaintops soon learn, ultraviolet light can produce a quick and ferocious sunburn (at low altitudes most of it is blocked by the earth's atmosphere), and we can readily enough detect the heat from the infrared electric lamps that keep fast-food hamburgers warm for hours. These physiological reactions are about the only means our unaided senses have of discovering that such light frequencies are present. Don't be fooled by the visible red of the infrared lamps and the purple of the "black-light" ultraviolet lamps in discos. True, you do see light coming from these devices, but that's merely an extra that lets us know they are in operation.

And so it is with infrasonic and ultrasonic sound frequencies. Certain physiological clues may tell you they are present: powerful infrasonic sounds will shake the floor, the dishware, and your gut; intense ultrasonic sounds have been proposed as a weapon of war because they are capable of creating great pain and a rapid breakdown of body-cell structure (fortunately, suitable sonic projectors would be cumbersome and not very efficient, so it seems likely that tomorrow's weaponry will get you in some other way). But although our eardrums are definitely agitated by these sounds, there are no receptors to convey the message to the brain. We may perceive them in one way or another, but we do not really "hear" them. The size of the inner ear seems to have something to do with

this. An adult male whose ears are in good condition may "hear" sounds from 16 to about 15,000 Hz. An adult female, typically being somewhat smaller, will not "hear" low frequencies as well but will usually detect significantly higher frequencies. Children, smaller still, may pick up sounds well above 20,000 Hz, though they have yet to report hearing anything of great interest up there.

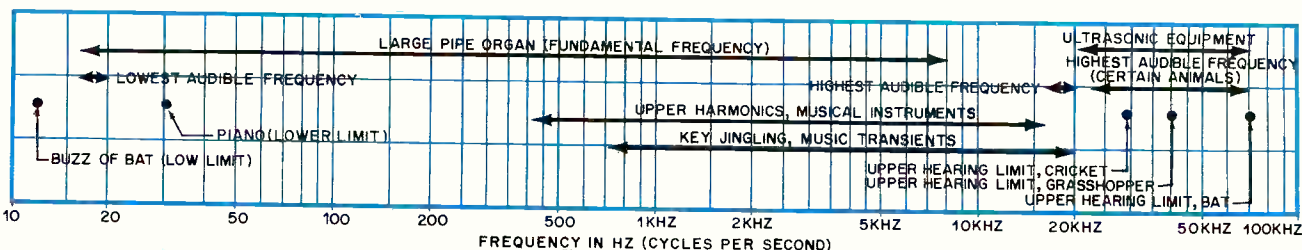
As almost any specification sheet will tell you, high-fidelity systems strive to do a creditable job of sound reproduction over the frequency range of at least 20 to 20,000 Hz. This seems a reasonable compromise considering the probable hearing acuities of all members of the family, and it is practically no compromise at all when we look at the frequency range of musical sounds. In terms of hertz, string basses reach down into the low 40's and big bass drums may sound a fundamental pitch somewhere in the low 30's. At the higher end of the spectrum, the fundamental pitches of all musical instruments are encompassed by a 20,000-Hz upper limit with more than an octave to spare, though the overtones of some instruments have been measured as extending much higher. All this is academic, however. The atmosphere absorbs ultrasonic sound frequencies just as it absorbs—or scatters—ultraviolet light frequencies. At any reasonable distance from a musical instrument, even the keenest ear will hear nothing of significance above about 16,000 Hz, and no musical instruments are designed to put out much energy beyond that.

But what about a large pipe organ, which may have a rank of 32-foot open pipes capable of emitting a low C at about 16 Hz? Well, this is in part intended as drama, as even a few motion pictures have acknowledged with

their sonic simulations of earthquakes and exploding bombs. A powerful organ can make the air around you shudder with a virtually inaudible but definitely palpable low note. If that's the experience you want in your listening room, well and good, but you'll pay for it in the coin of giant woofers and truly mighty amplifiers, only to discover that precious few recordings even attempt to capture this sort of signal. And do not be fooled by overenthusiastic claims; electric basses, kick drums, and the rest are all 40 Hz and above in frequency. Nothing else even approaches the depths plumbed by the big organ, although there are plenty of instruments that can make you feel an impact in the pit of your stomach, largely because of the amount of energy they put out at *moderately* low frequencies. If your (audio) system can cope with these, it will give a good account of the big organ pipe as well, in the form of its dense and powerful overtones at 32, 48, 64 Hz, etc.

As we become more sophisticated in the reproduction of sound, we are beginning to realize that infrasonic and ultrasonic capabilities in an audio system are not only somewhat irrelevant but also frequently undesirable. A close reading of Gary Stock's article on record players this month will reveal some of the difficulties a sound system can get into when it responds to infrasonics. None of these effects do the ear any particular good, and it's unfortunate that very few people realize the havoc they can raise with the reproduction of sounds we really *can* hear.

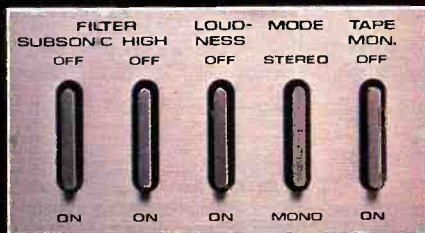
AT extremely high frequencies there are other problems to consider. There is some upper frequency limit beyond which no audio device can go without some form of distortion taking place. With modern amplifiers the limit might be 200,000 Hz or even considerably higher, but it is there nevertheless. Subject an amplifier to signals of significant strength at these frequencies and you provoke a condition of nonlinearity that can create difference-tone distortions and other phenomena that can crop up at frequencies within the range of hearing. Where might such ultrasonics come from? Probably not directly from any recording you're likely to buy, nor from any phono cartridge or tape deck you're likely to use (although there is some debate about this). But they can certainly come from radio-frequency interference, oscillations and other instabilities within the amplification chain, peculiar interactions between components and their connecting cables—quite a lot of places, in fact. We don't know a great deal about these effects, and every sound system is bound to be a little different in the way it experiences them, but from what we do know, it seems that infrasonics and ultrasonics are not very important to the reproduction and enjoyment of recorded music. Keeping them *out* of the reproduction process, however, may be. □



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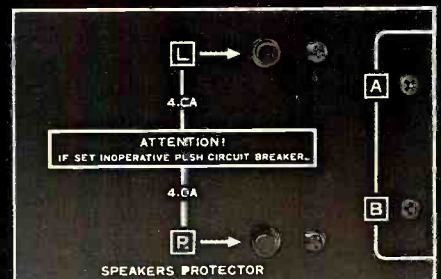
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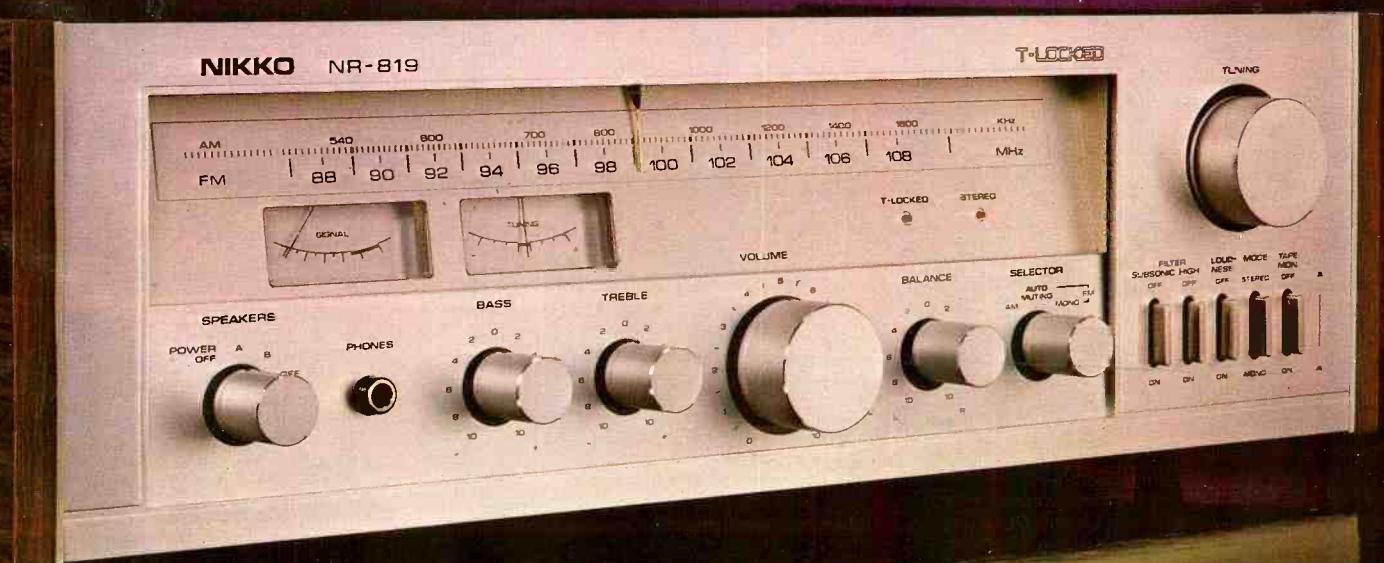


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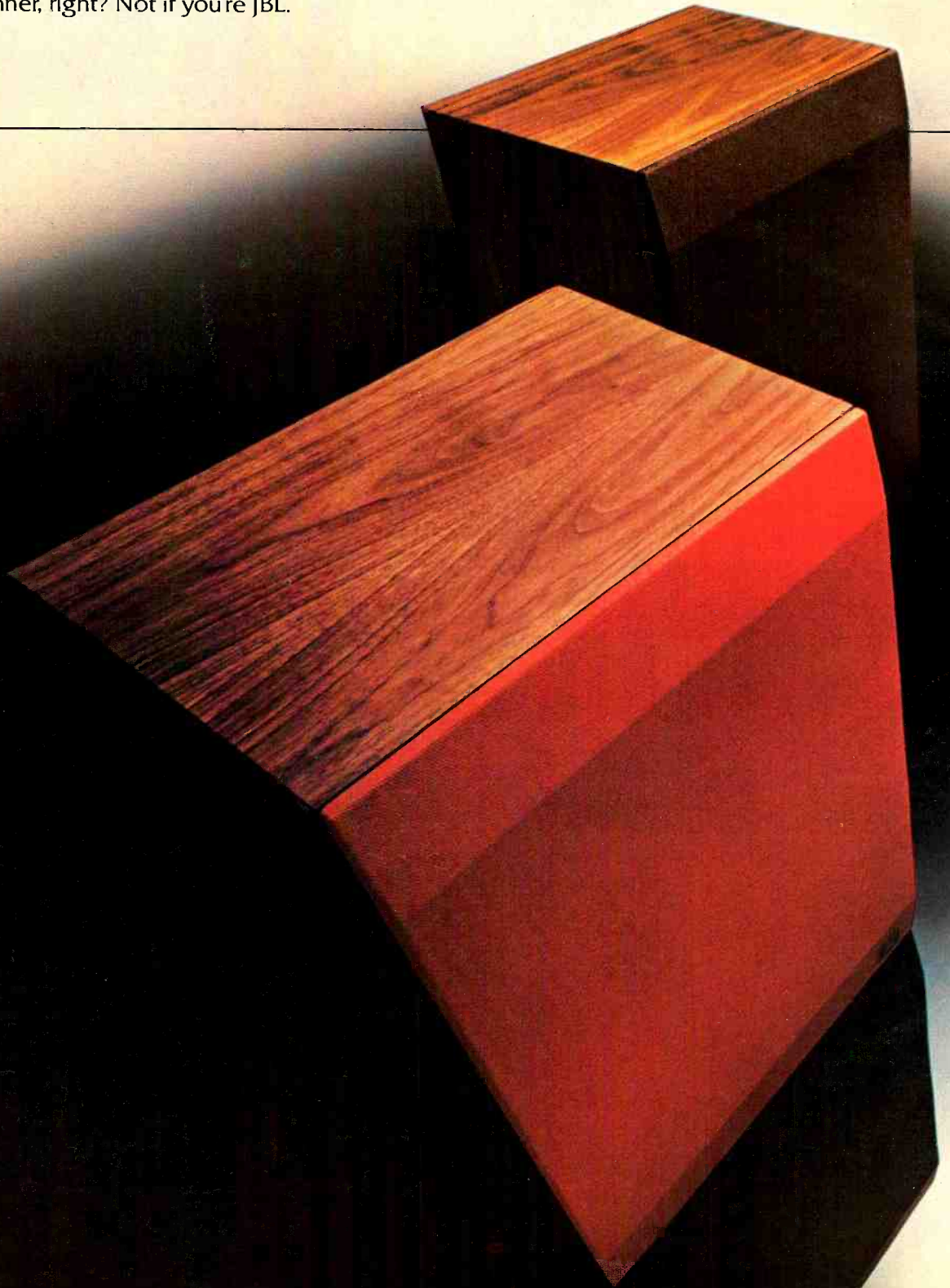
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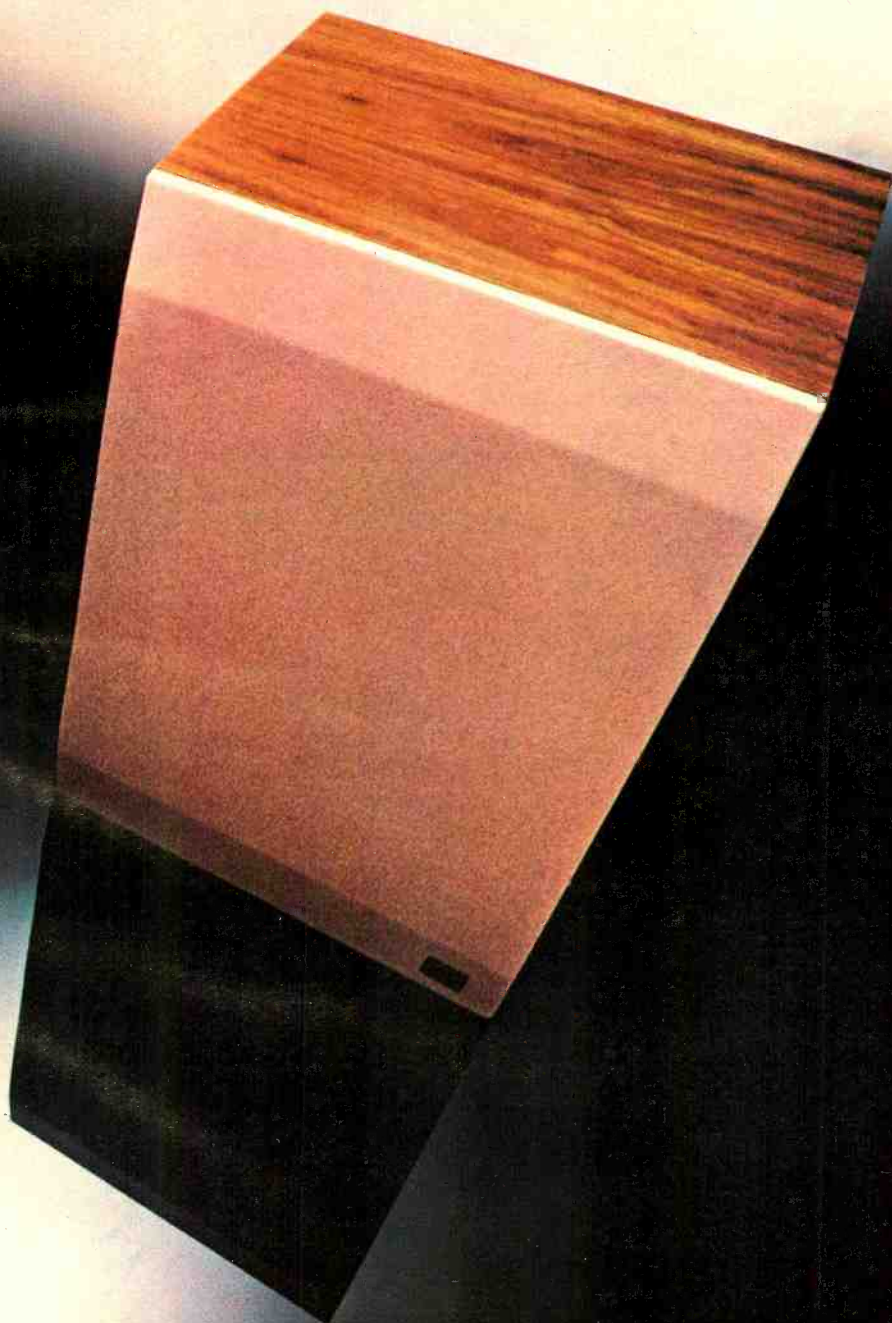
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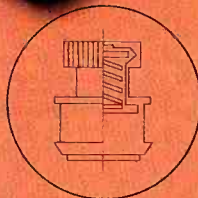
...and keeps on going.

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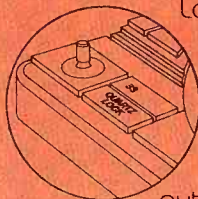
The famous WMF carbon fibre tonearm was the model for the sleek black anodized aluminum tonearm found on the ADC 1700DD. The headshell is molded carbon fibre, long known for its low mass to high tensile strength ratio. The viscous cueing is a gentle 4mm/sec., and the tempered spring anti-skate adjustment is infinitely variable to 3.5 grams. The pivot system uses stainless steel instrument bearings, which are hand-picked and perfectly matched to both the outer and inner races for virtually frictionless movement. All this makes it the best tonearm found on an integrated turntable.

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CIRCLE NO. 9 ON READER SERVICE CARD

Technical Talk

By Julian D. Hirsch



● Fuse Distortion? ●

THIS month's column was inspired by a newsletter (published by a manufacturer of high-quality amplifiers) in which concern was expressed about distortions introduced by inserting a protective fuse in the line from amplifier to loudspeaker. Such fuses are often built into speakers, or in some cases an amplifier, and many speaker manufacturers recommend that their products be protected by user-installed fuses.

Distortion from a *fuse*? How could this possibly come about? It is normal for the electrical resistance of most metals to increase with temperature; thus, a hot fuse has a higher resistance than a cold one. In itself this cannot produce distortion—at worst, it would slightly reduce the power available to the speakers. However, if the fuse wire were very thin, with a low thermal mass, the fuse element could heat and cool very rapidly, possibly even during a single cycle of a low-frequency audio waveform. Consequently, at a very low audio frequency the fuse resistance might thermally “track” the signal waveform. In such a case, there would be a resistance in series with the load that would vary with the change in current flow through the speaker during each cycle of the signal. The result would be a form of nonlinear distortion, since the current waveform would not vary linearly with the signal.

The amplifiers made by the manufacturer whose newsletter raised this subject are noted for their very low harmonic-distortion ratings. Being concerned about this source of distortion, he avoided it by placing speaker fuses within his amplifiers' feedback loops rather than in the speaker lines. Finding my interest aroused by a “problem” whose theoretical existence I recognized but whose practical

importance seemed questionable, I decided to find out for myself just how serious the non-linearity of a speaker fuse could be.

I had at hand an amplifier with extremely low distortion and a new Hewlett-Packard Model 239A low-distortion oscillator, both with intrinsic distortions of less than 0.001 per cent. I connected the output of one channel of the amplifier to a precision 8-ohm noninductive resistor load with provision for inserting a fuse in series with the speaker line. The amplifier was driven at 20 Hz from the low-distortion oscillator. The output signal (across the load) was first passed through our Radford distortion analyzer to reduce the level of the fundamental frequency so the harmonics could be measured on our Hewlett-Packard 3580A spectrum analyzer. This extends the system's measurement range from 90 to as much as 130 dB (corresponding to 0.00003 per cent distortion!), although the 239A oscillator's distortion typically falls within 0.001 to 0.0007 per cent, depending on the frequency.

WITH no fuse in the speaker line, the output current was set at 2 amperes (32 watts). The distortion was 0.003 per cent, equally divided between second and third harmonics. After a 2-ampere (3AG) fuse was inserted in the speaker line, the second harmonic was unchanged but the third harmonic increased to 0.0063 per cent, for a total harmonic-distortion reading of 0.0067 per cent. The test was repeated with a 1.5-ampere fuse, at its rated current, with essentially identical results.

Larger fuses have heavier internal elements and could therefore be expected to have less of a distorting effect (they are also less likely to protect a speaker from anything short of catastrophic amplifier failure). We tested a 5-

ampere fuse with the amplifier delivering 100 watts to a 4-ohm load (necessary to develop the fuse's rated current). The distortion was a mere 0.0022 per cent with or without the fuse.

The conclusion (to me, at least) is inescapable. A typical speaker-protecting fuse *will* introduce some measurable distortion, but only at the lowest frequencies and at current levels close to the fuse rating. This distortion may get as “high” as 0.01 per cent, although our reading never approached that figure. Not being one of those people who believe that everything that is measurable can be heard, I would judge the importance of this effect on the sound of an audio system as about the same as that produced by a conjunction of Venus and Mars.

But there is another potential problem with speaker fuses. A fuse's internal resistance can be appreciable, and the effective damping factor of an amplifier can be radically reduced by such added series resistance. A couple of years ago I wrote here about what happens to the effective damping factor when a small resistance is added to the speaker-line circuit. The answer is, essentially *nothing*, since the internal d.c. resistance of a speaker (typically several ohms) makes worrying about an extra tenth of an ohm or so seem rather silly. I measured the dynamic resistance (at rated current) of the 2-ampere fuses I used and found it to be 0.1 ohm.

How does this 0.1 ohm of fuse series resistance relate to the resistances in other sections of the speaker circuit? Well, if you use #18 lamp cord for your speaker wiring (admittedly a smaller gauge than desirable), a 16-foot length will introduce a total resistance of about 0.4 ohm. The special (and expensive) “low-inductance” speaker cables that are

Tested This Month

Scott Model 830Z Audio Analyzer • B&O MMC 20CL Phono Cartridge
Yamaha CR-840 AM/FM Stereo Receiver • KEF Model 105 Speaker System
Soundcraftsmen SP4002 Preamplifier

popular in some audio circles typically have a resistance of 0.15 to 0.2 ohm for the same length (they also have some rather undesirable side effects, but space does not permit going into that here). If the amplifier is a good-quality unit with a damping-factor rating of, say, 400, its internal "source" resistance will be about 0.02 ohm. With a typical speaker resistance of 2 ohms, speaker cables having a

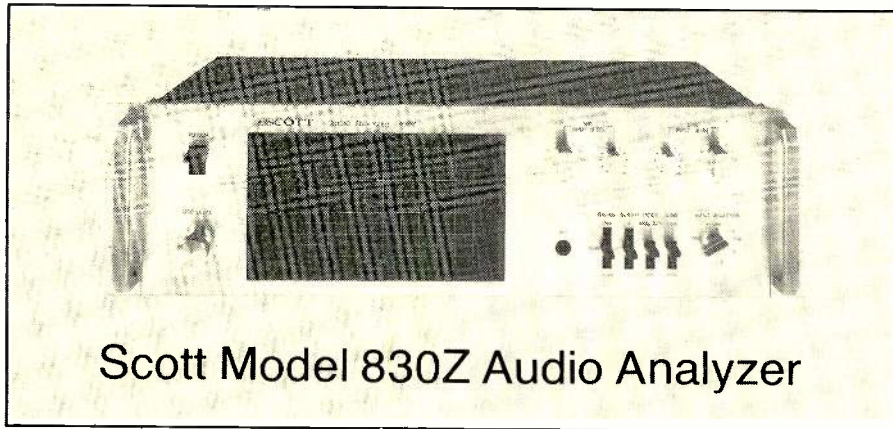
0.2-ohm resistance, and the amplifier's 0.02 ohm, the total is 2.22 ohms. The true damping factor is then 3.6, a far cry from the amplifier's inherent factor of 400! Adding a fuse with a 0.1-ohm resistance will reduce this to 3.45, which is certainly no more serious than the 0.01 per cent, or less, distortion that the fuse will also add!

My advice, then, is to forget imaginary

problems and fuse your speakers if the amplifier you are using is capable of delivering significantly more power than the speakers are rated to handle—and if the speakers are not already protected by their own fuses. I doubt that anyone will be able to hear the 0.01 per cent added distortion at 20 Hz, but I can attest that the silence when a speaker voice coil burns out is deafening!

Equipment Test Reports

By Hirsch-Houck Laboratories



Scott Model 830Z Audio Analyzer

THE interest of many advanced audio hobbyists in the performance of their systems and components has led to the development of a number of test instruments specifically designed for home (that is, nonprofessional) applications. For example, in the heyday of quadraphonics audio oscilloscopes were available from several hi-fi manufacturers. Their ability to display the directional distribution of four-channel programs (doubling as FM tuning and multipath indicators in most cases) made them interesting and informative tools for the technically oriented user, and they were styled to harmonize with other audio components.

Recently several smaller manufacturers have introduced inexpensive audio peak-level indicators using light-emitting diodes (see the test reports on the Uni-Sync and Audio Technology units in the October 1978 issue). However, a totally different level of sophistication is represented by the new Scott Model 830Z Audio Analyzer. This is a ten-band real-time spectrum analyzer with a built-in multifrequency signal source that enables it to measure the frequency response of a component or a complete system (a small, wide-range microphone is included for *acoustic* frequency-response measurements).

The display of the Model 830Z is a grid of red LED's that are seen as short horizontal bars of light. There are ten vertical rows, one for each of the octave bands. Each vertical row contains eleven LED's corresponding to the signal amplitudes in that frequency band. A three-position switch on the front panel se-

lects the display range of the analyzer, which can be ± 20 , ± 15 , or ± 10 dB (with the 0-dB reference level at the center of the scale). For these ranges, the level change corresponding to one vertical "division" is 4, 3, or 2 dB, respectively. Intermediate levels can also be read, since when two lights are on simultaneously the actual value is midway between them. The amplitude-scale calibrations appear to the left of the frequency scales, with the selected range indicated by an illuminated LED at the bottom of its scale.

The display, appearing against a black background with clearly visible white markings on the plastic screen, occupies almost half the front panel. To its left are the power switch and an OSC LEVEL knob that adjusts the amplitude of the test signal appearing at the rear terminals. Across the upper right of the panel are level controls for the microphone and line inputs. Each consists of a seven-position rotary switch (10 dB per step) and a continuously variable vernier adjustment.

Below the level controls are the MIC jack and input selector (for MIC, LINE, and CAL). The line inputs can be either the left or right channel or their sum. The CAL position of the switch connects the test-oscillator signal to the analyzer input, giving a horizontal line of glowing LED's. When the LINE LEVEL switch is set to 0 dB, the CAL display is at the 0-dB mark (the center line).

Four lever switches complete the control lineup of the Model 830Z. The RANGE switch selects a display range of 20, 30, or 40 dB. In its FLAT center position the three-position

WEIGHT switch causes the analyzer to have a uniform response to all frequencies in its range. The other two positions provide the standard IEC A or C weighting curves for acoustic or noise measurements. A MODE switch selects either ANALYZER or SPL modes. In the latter, the spectrum-analyzer display is replaced by a single vertical scale display of the level of the total input signal. With the microphone input, the 0-dB SPL indication corresponds to the sound-pressure level (SPL) chosen by the MIC INPUT LEVEL switch (from 50 to 110 dB). The 40-dB amplitude scale provides SPL readings from 30 to 130 dB. A fourth two-position switch, LINE, selects either the HIGH or LOW inputs at the rear of the instrument. They are electrically identical, but HIGH uses insulated speaker-type terminals for connection to an amplifier's speaker outputs and LOW uses phono jacks for connection to tape-recorder or preamp outputs.

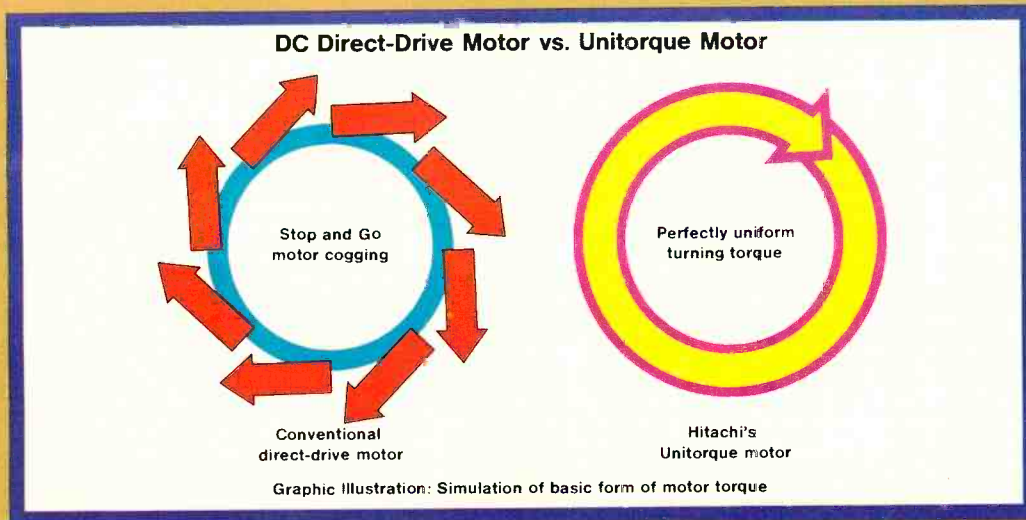
The inputs and outputs of the Model 830Z (except for the MIC input) are in the rear of the unit. A 7-inch, 33 $\frac{1}{3}$ -rpm record is supplied with the analyzer for record-player and phono-preamplifier testing. It provides all the test tones normally generated by the Model 830Z except that they are RIAA equalized and appear simultaneously. The Model 830Z is 17 inches wide, 5 $\frac{1}{4}$ inches high, and 14 $\frac{1}{4}$ inches deep, and it weighs about 10 pounds. Price: \$599. Rack-mounting adapters with handles are available for \$24.

● **Laboratory Measurements.** Our measurements of the Scott Model 830Z were limited to verifying its rated performance specifications. The center frequency of each filter was measured, and the frequency errors varied from 6.7 per cent at 32 Hz to 0.9 per cent at 16,000 Hz, well within the rated accuracy of ± 20 per cent. We checked the response at 32, 1,000, and 16,000 Hz on all three amplitude scales. The largest error was 2 dB; typical errors near the center of the scale were about 1 dB or less.

The outputs of the oscillator section were measured on our Hewlett-Packard spectrum analyzer. The maximum level variation among the ten tones was 1 dB (rated ± 1.2 dB). The sensitivity and display range of the LINE inputs was checked over the full range of the LEVEL switch. A 0-dB (center scale) indication could be obtained with inputs from 9 millivolts to 14.5 volts. The ± 20 -dB scale of

(Continued on page 40)

Absolutely even torque through a full 360°



Uinitorque direct-drive turntable

Hitachi's HT-463 Fully-Automatic Turntable is the epitome of accuracy. Its patented Uinitorque motor has two star-shaped stator coils arranged for precise balance, even torque distribution and low temperature rise. Brushless, coreless and slotless, it eliminates cogging and vibration. And this direct-drive marvel features quartz-locked control to keep platter speed free from deviation or drift, regardless of changes in load, temperature or line voltage.

Quartz is the most accurate frequency generating element known to man. Coupled with Uinitorque's inherent smoothness, it leads to extremely low wow and flutter and virtually unmeasurable turntable rumble. 0.03% WRMS and a S/N ratio of 73 dB (DIN B).

This impressive performer also has front-mounted controls for full operation with the dust cover down.
The Hitachi HT-463. It's the accurate choice.



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HOW IT WORKS

At the heart of the Scott Model 830Z is a 16,000-Hz voltage-controlled oscillator whose frequency is successively halved to generate signals at 8,000, 4,000, 2,000, 1,000, 500, 250, 125, 63, and 32 Hz as well. The square-wave output of each divider is filtered to approximate a sinusoidal shape. There are two more divisions of frequency, for use in the internal operation of the instrument. An 8-Hz component is fed back to the 16,000-Hz oscillator, frequency-modulating it to form a family of "warble-tone" signals in order to avoid activating room resonances during acoustic measurements. And the intermediate 16-Hz signal operates a multiplexing circuit that successively

connects each of the ten test signals to the rear output terminals, covering the audio band at the rate of sixteen times per second.

THE input to the Model 830Z is fed in parallel to ten octave-wide bandpass filters whose center frequencies are the same as the ten test frequencies. The outputs of the filters are individually processed by logarithmic amplifiers and then detected. The ten detector outputs are switched by the same 16-Hz frequency that controls the sequence of test-tone outputs, so the frequencies of the output signals and the input filters are always synchronized.

the amplitude display extends the visible display range from 0.9 millivolt to 145 volts, more than enough for any dynamic range that will be encountered in a home music system.

The frequency response of the Model 830Z was checked in the flat, A-weighted, and C-weighted modes, and in each case it agreed very closely with the curves shown in the instruction manual. We did not check the response of the microphone (rated from 30 to 16,000 Hz ± 3 dB), but the supplied calibration curve showed it to be well within those limits. Scott suggests that the microphone be gripped as far as possible from the actual element during acoustic measurements to prevent any effect on the response from handling noise or reflections from the hand. One simple way to accomplish this would be to tape the mike to one end of a pencil, holding the pencil's other end during acoustic-response measurements.

● **Comment.** Real-time spectrum analyzers, which display the amplitudes and frequencies of all components of a complex signal as they occur, are widely used in adjusting sound systems and equalizing auditoriums as well as in general acoustic analysis. As a rule, they are much too expensive and unnecessarily precise for casual home or hobby use. The Scott Model 830Z is the first such instrument we have seen that was specifically designed for home use.

When this analyzer is connected across the speaker outputs of an amplifier or receiver, it reveals in a dramatic and easily understood manner how the energy content of recorded music programs is distributed: most of the energy is in the middle of the audio spectrum, with little or none appearing at the lowest and highest frequencies. The LED's of the Scott 830Z respond fairly rapidly to signal transients (though not as fast as a good LED

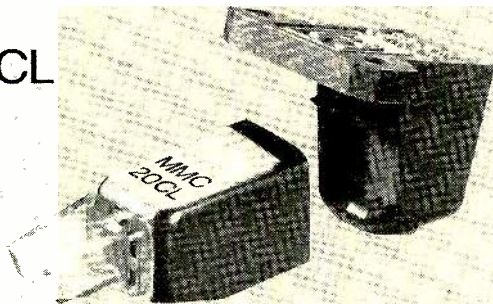
peak-level indicator), so the display is reasonably valid as an indicator of true maximum levels at different frequencies. There was an error of less than 1 dB for a 300-millisecond tone burst and about 4 dB for a 100-millisecond burst at 1,000 Hz. The display decays slowly, taking 1 to 2 seconds to die away after the signal disappears, and it therefore gives a more or less continuous picture of the amplitude and frequency of the program.

The test record included with the analyzer is a convenient way to check the complete response of a phono system (the disc is RIAA equalized and gives a "flat" response through a correctly equalized preamplifier, subject only to the variations introduced by the phono cartridge). Scott also suggests using the Model 830Z to check the response of a tape recorder including the effect of bias and equalization adjustments. By recording the oscillator test signal on tape and playing it back into the analyzer, the overall frequency response can be seen at a glance. With the aid of the Model 830Z, it takes but a moment to trim the bias of a three-head cassette recorder for the flattest frequency response with *any* tape. Using the microphone, you can measure the response of your listening room and speakers, and if an octave-band equalizer is available, it can be used together with the spectrum analyzer to equalize the room and speakers in a fraction of the time that would be required for conventional point-by-point adjustments.

All of this technical capability has been available in the past, but at a cost many times that of the Scott Model 830Z. We found this novel instrument to be most useful—perhaps the most valuable test and analysis accessory a technically oriented audiophile could have. In addition to its obvious value in making system adjustments and checks, it is a continuing audio education: watching the display while listening to different kinds of program material is most instructive.

Circle 140 on reader service card

B&O MMC 20CL Phono Cartridge



THE new MMC 20 series of stereo phono cartridges from Bang & Olufsen represents an evolutionary advance over the Danish manufacturer's preceding models (they

describe it as a "new generation" of cartridges). Like earlier B&O cartridges, the MMC 20 series is based on the moving-iron principle, with a symmetrical X-shaped arma-

ture attached to the stylus cantilever at one end. As the armature of a cartridge is deflected in use by stylus movement, it varies the flux distribution from a powerful fixed magnet to the four pole pieces. Surrounding each pole piece is a coil of wire (there are 2,500 turns in each coil), and the rate of flux change induces a proportional voltage in the coils, which are connected in pairs to provide the two-channel stereo output.

Cartridges in the MMC 20 series are also very similar in general appearance to older-model B&O cartridges, but there are some major differences. For example, instead of the usual metal stylus cantilever (normally aluminum or beryllium), the MMC 20 cartridges have cantilevers that are each formed from a single sapphire crystal.

The choice of such an exotic material was by no means arbitrary. It was dictated by the need for the stiffest possible cantilever structure. Since no cantilever is perfectly rigid,

(Continued on page 44)



The Panasonic 200-watt dash. Win it with a built-in graphic equalizer.

Last expanses of curved glass and valleys of vinyl all encased in steel. A less than ideal place to listen to music. But, unfortunately, a lot of us do. Because this is the interior of a car. It's here that Panasonic teams up two 100-watt amps with a built-in graphic equalizer to create the stereo system that can outrun the problems your car's interior creates.

Our built-in graphic equalizer has 5 bands. It divides the music into five parts, to give each part its own separate bass and treble control. So whether you're listening to the stereo tuner or the cassette player, you'll have excellent control over all your music.

And when some other car stereo amps may be gasping for power and limping with distortion, these Panasonic in-dash hi-fi components have 200 watts of power

with only 0.05% total harmonic distortion. That's plenty of power to take the most difficult passages in stride.

The Panasonic 200-watt dash gets off to a running start with the CQ-7600: An AM/FM stereo tuner, graphic equalizer, cassette player with Dolby and a bi-amp. The bi-amp further separates the music by routing most of the low notes through the rear speakers. And most of the high notes through the front speakers. The CQ-7600 runs in concert with a matched pair of CJ-5000 power amps. Each with 100 watts of total power (30- and 40-watt amps are also available). And to handle all that power, Panasonic has the Sound Pumps™ 100 speaker system.

100 speaker system.

Panasonic 200-watt dash is the stereo system that adds up to the sweet sound of victory in your car.

Dolby is a trademark of Dolby Laboratories, Inc.



Panasonic
just slightly ahead of our time.

CIRCLE NO. 65 ON READER SERVICE CARD

Philips Direct Control

Better than belt. Better than direct.

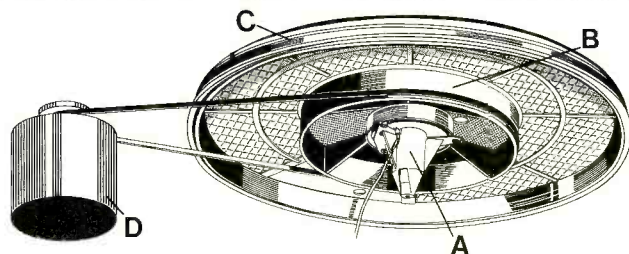
What's better than belt and direct drive? The best of both in one turntable. The specs of direct drive with the acoustic and mechanical isolation of a belt drive. Until now, unheard of. But now you can hear it all on Philips' exclusive, new Direct Control turntables.

How did Philips do it? The way you'd expect a worldwide leader in electronics to do it— with the world's best electronic technology.

PHILIPS' EXCLUSIVE DIRECT CONTROL ELECTRONIC DRIVE SYSTEM.

In all Philips Direct Control turntables a mini-computer at the driving disc constantly checks and re-checks the platter speed. Instantly correcting for any variations in line voltage, frequency, pressure on the platter, temperature — even belt slippage.

That's how all Philips Direct Control turntables keep the speed constant and accurate.



A 160 pole tachometer generator (A) at the driving disc (B) electronically monitors the platter's (C) rate of rotation. The tachometer's d.c. signal is continuously compared to a stable d.c. reference signal. Any variations (+ or -) and the tachometer (A) instantly accelerates or slows the separate d.c. motor (D). Direct Control actually puts the driving disc into the electronic feedback loop for excellent speed stability.

DIRECT CONTROL FREE-FLOATING SUBCHASSIS. Specially designed to give Philips Direct Control turntables superb acoustic and mechanical isolation. To cushion the platter, the tonearm — and protect your valuable records — from unexpected jolts, shocks and knocks. And to keep the rumble remarkably low.

DIRECT CONTROL = TOTAL TURN-TABLE DESIGN. But Philips doesn't stop there. For us Direct Control is more than an exclusive new drive and suspension system — it's a completely new concept in total turntable design. Direct Control is specially designed straight, low mass, tubular aluminum tonearms, with very low friction bearings. To track even your most warped records accurately.

DIRECT CONTROL ELECTRONIC FEATURES. Direct Control means reliable electronic touch switches for silent, vibration-free operation. Accurate electronic pitch controls. Digital and LED indicators to monitor platter speed and identify functions. And photo-electronic sensors to initiate the automatic tonearm return.

CIRCLE NO 52 ON READER SERVICE CARD

hi
fi

HIGH FIDELITY INTERNATIONAL

trol:

DIRECT CONTROL RECORD PROTECTION. Philips even built in an accurate stylus pressure gauge, to keep the pressure off your valuable record collection. Nobody ever thought of that before. But Philips thinks of everything.

ALL AT A PRICE THAT'S WELL UNDER CONTROL. Philips' exclusive Direct Control turntables – the new state-of-the-art – from \$160 to \$250. With Quartz Control, \$400.

By joining our European research facilities with our American know-how, Philips produces a full line of audio equipment high on performance and value. That's what sets us apart from the competition. Here and around the world.

**EVERYONE WHO KNOWS, KNOWS
PHILIPS**

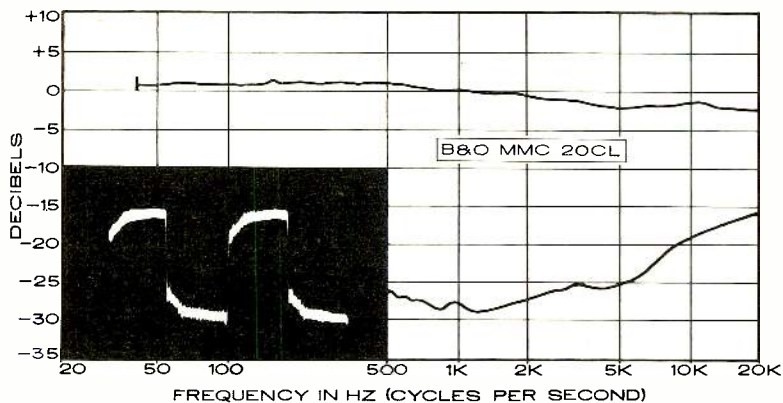
High Fidelity Laboratories, Ltd.

	WOW & FLUTTER	RUMBLE	PRICE
AF 977	0.025% (WRMS)	- 73dB (DIN B)	\$399.95*
AF 877	0.03% (WRMS)	- 70dB (DIN B)	\$249.95*
AF 867	0.05% (WRMS)	- 65dB (DIN B)	\$219.95*
AF 777	0.05% (WRMS)	- 65dB (DIN B)	\$189.95*
AF 677	0.05% (WRMS)	- 65dB (DIN B)	\$159.95*

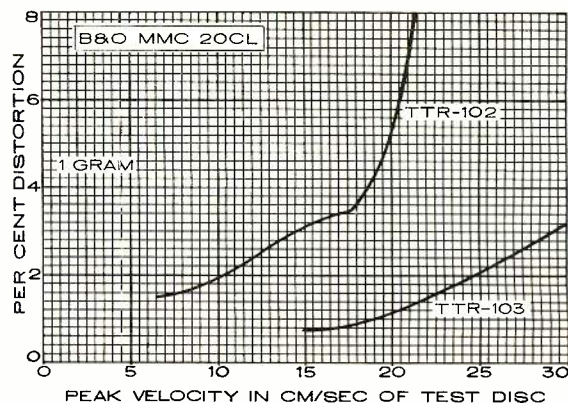
*Suggested retail prices optional with dealers.

QUARTZ PLL





In the graph at left, the upper curve represents the smoothed, averaged frequency response of the cartridge's right and left channels; the distance (calibrated in decibels) between it and the lower curve represents the separation between the two channels. The inset oscilloscope photo shows the cartridge's response to a recorded 1,000-Hz square wave (see text), which indicates resonances and overall frequency response. At right is the cartridge's response to the intermodulation-distortion (IM) and 10.8-kHz tone-burst test bands of the TTR-102 and



TTR-103 test records. These high velocities provide a severe test of a phono cartridge's performance. The intermodulation-distortion (IM) readings for any given cartridge can vary widely, depending on the particular IM test record used. The actual distortion figure measured is not as important as the maximum velocity the cartridge is able to track before a sudden and radical increase in distortion takes place. There are very few commercial phonograph discs that embody musical audio signals with average velocities much higher than about 15 cm/sec.

there is inevitably some flexing as the stylus moves in the groove, and consequently some cantilever resonance, usually somewhere in the upper two audible octaves. This resonance must be carefully damped in order to achieve a reasonably flat frequency response in the audio band, and this damping can affect the transient response of the cartridge.

Beryllium is relatively stiff compared with aluminum, the most common material used for stylus cantilevers, so a beryllium cantilever shifts the resonant frequency higher in the audio range, where its effects are less apparent. According to B&O, single-crystal sapphire is 40 per cent stiffer than beryllium and more than five times as stiff as aluminum. Moreover, its resonance is above 20,000 Hz, making a flat response in the audio range possible without large amounts of pivot damping. B&O also points out that the velocity of sound in sapphire is twice that in aluminum, thus reducing possible phase distortions at high frequencies as the vibrations propagate up the cantilever from the stylus to the generating armature.

The MMC 20 cartridges have tiny, nude-diamond styli bonded to the tips of their sapphire cantilevers. Depending on the particular model, the stylus may have a spherical, elliptical, or "line-contact" shape. The MMC 20CL, the model we tested, has a line-contact stylus, which tracks the groove more accurately and distributes the vertical tracking force over a larger area of the groove walls. The stylus is not user-replaceable.

Final testing of B&O MMC 20 cartridges is done by a sophisticated computer-controlled test system developed by B&O engineers. This thoroughly evaluates a cartridge's performance much more rapidly and accurately than would be possible with conventional means. An individual calibration card printed out and packed with each cartridge shows its output voltage, channel balance, midrange channel separation, and output at 16,000 Hz compared with the 1,000-Hz level. In addition, the top-of-the-line MMC 20CL comes with an individually calibrated frequency-response chart.

The MMC 20CL is a very small, lightweight cartridge. It is designed to plug directly into

the tone arms of B&O record players so as to minimize the total effective arm mass, but included with each cartridge is an adapter for installing it in any conventional tone arm with half-inch-spaced mounting centers (the adapter is shown separated from the cartridge in the photo on page 40). MMC 20CL cartridges also come with a stylus-force gauge, a stylus-cleaning brush, and a small screwdriver. Price: \$150.

● **Laboratory Measurements.** We installed the B&O MMC 20CL in the tone arm of a Denon DP-2500 record player. The cartridge is designed to track at 1 gram, and that force was used throughout our tests. The preliminary specifications and information accompanying our early production-sample cartridge did not mention a recommended load capacitance other than to indicate that the cartridge windings have a low inductance and are thus not critically dependent on any specific load capacitance. We used a typical cartridge load of 47,000 ohms in parallel with 220 picofarads (pF), and we later checked the effect of other capacitance values on the frequency response (it was very slight).

The frequency response of the MMC 20CL was notably smooth and linear (a characteristic of previous B&O cartridges we have tested). It sloped downward very slightly with increasing frequency but never deviated more than a fraction of a decibel from a straight-line response. With the CBS STR 100 test record, the output between 5,000 and 20,000 Hz was about 3 dB lower than at 500 Hz. With a JVC TRS-1007 record, the total variation was only ± 1 dB from 1,000 to 20,000 Hz. The channel separation averaged about 28 dB at 1,000 Hz, 15 to 20 dB at 10,000 Hz, and about 15 dB at 20,000 Hz.

The frequency response was affected only slightly by a very large change of load capacitance: increasing the capacitance from 70 to 420 pF raised the output by about 1.5 dB maximum in the 5,000- to 20,000-Hz range. With the higher capacitance value, the overall response with the CBS record was a very good ± 1.5 dB from 40 to 20,000 Hz. A square-wave test (with the CBS STR 112 record) showed no overshoot, a very rapid rise time on the

leading edge, and a somewhat unusual rounded top on the square wave. The output of the cartridge was about 3.1 millivolts per channel at a recorded velocity of 3.54 cm/sec, and the channel levels were matched within 0.4 dB. The vertical stylus angle was 22 degrees.


Tracking tests with several high-velocity test records showed the MMC 20CL to be satisfactory in this respect. With the Shure "Audio Obstacle Course" records there was usually some indication of incipient mistracking, such as a hardness or roughness in the sound, on level four. On level five of most sections the mistracking was unmistakable. Note, however, that this is a recorded velocity far higher than is usually found on commercial music records.

At the 1-gram tracking force we used there was moderate symmetrical clipping on the very high-velocity, 30-cm/sec, 1,000-Hz test tones of one of our records, but high-level 32-Hz tones were played without audible mistracking. Although there was no harsh distortion, we could hear the beginnings of mistracking on the 80-micron level of the 300-Hz tones of the German Hi Fi Institute record. In general, when the cartridge's tracking abilities were exceeded, the audible effects emerged gradually over a range of velocity levels rather than there being an abrupt change from perfectly clean sound to harsh distortion.

The MMC 20CL played the Shure TTR-102 intermodulation test record up to a velocity of about 18 cm/sec without serious distortion, but at higher levels it mistracked seriously. The 10.8-kHz tone bursts on the Shure TTR-103 record showed a smooth increase in repetition-rate distortion as the velocity increased from 15 to 30 cm/sec. Although the distortion was slightly greater than we have measured with some cartridges, it was certainly not excessive.

● **Comment.** Extended listening to music records using the B&O MMC 20CL left us with no doubt that it ranks with the finest cartridges on the market today. Any concern that its tracking ability might be inadequate for playing high-level recordings was soon dispelled. Not only did we hear no indication

(Continued on page 48)

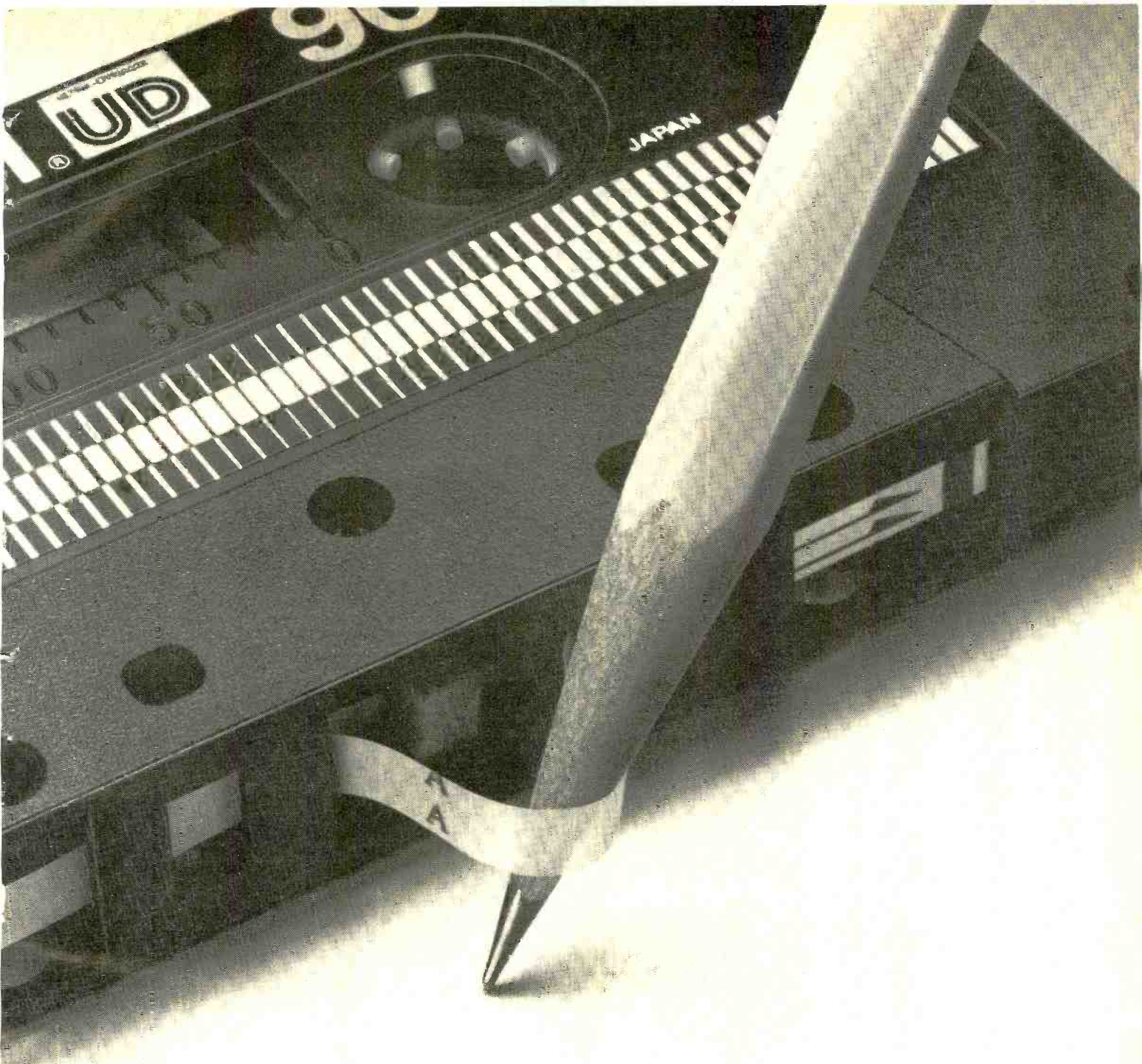


Right to the end, its Canadian spirit stands out from the crowd. What makes it such a popular choice? Super lightness. Superb taste. If that's what you've been searching for, set your course for Lord Calvert Canadian.

The unique spirit of Canada:
We bottled it.

There may be more
major innovations in this
camera than in any
35mm SLR you've ever seen.





We put more thought into our leader than most manufacturers put into their tape.

One of the reasons Maxell has such a great following is because of our leader.

It has a built-in non-abrasive head cleaner designed to remove the oxide residue other tapes leave behind, without damaging your tape heads.

It also points out what side of the tape you're on (A or B) as well as which direction the tape is traveling. So it's almost impossible to make a mistake.

It even gives you a five second cueing mark, so you can set your recording

levels without wasting tape. Or time.

Obviously, all the thought that went into our leader was designed to help you get more out of our tape.

So if you think our leader sounds impressive, wait till you hear what follows it.

maxell



CIRCLE NO. 38 ON READER SERVICE CARD

Maxell Corporation of America, 60 Oxford Drive, Moonachie, N.J. 07074

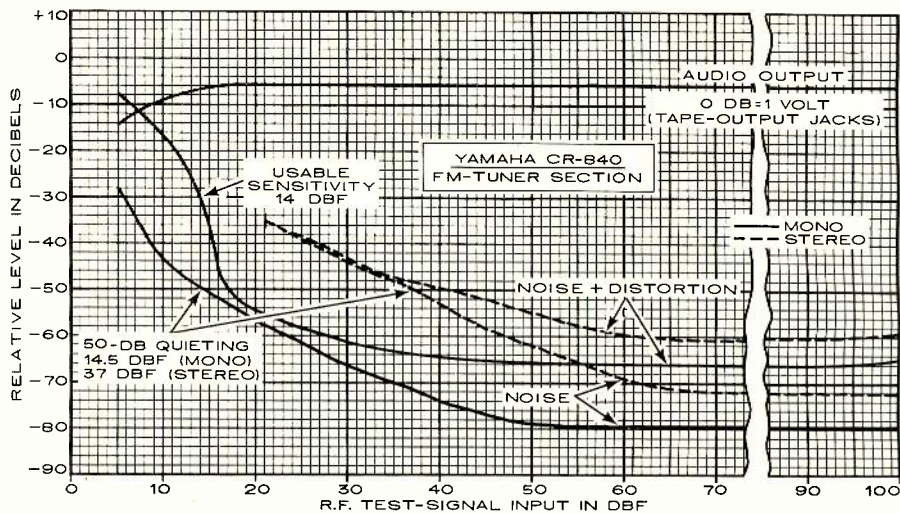
trol is initially set to the loudest that one expects to listen, with the **LOUDNESS** control at its flat, or maximum, setting. Then, turning **LOUDNESS** counterclockwise reduces the volume in ten steps and provides progressively greater amounts of bass and treble boost.

In the rear of the receiver are insulated spring-clip speaker connectors and binding posts for the AM and FM antenna inputs (plus a coaxial connector for a 75-ohm FM antenna). Standard phono jacks are used for the various signal inputs and outputs. Instead of the usual ferrite-rod AM antenna, the Yamaha CR-840 comes with a small shielded-loop antenna that is physically separate from the receiver and can be mounted on it or on some nearby surface with an adhesive pad. There are three a.c. convenience outlets, one of them switched.

The Yamaha CR-840 is supplied in a wooden cabinet that measures 20 inches wide, 6½ inches high, and 15¼ inches deep. It weighs about 30 pounds. Price: \$510.

● **Laboratory Measurements.** The Yamaha CR-840 is a rather large and heavy receiver for its power rating, and this was reflected in the ease with which it withstood the FTC-mandated one-hour preconditioning at one-third rated power. The ventilating grille became only moderately warm over the output-transistor heat sinks, and elsewhere the receiver was just barely warm to the touch.

With both channels driving 8-ohm loads at 1,000 Hz, the outputs clipped at 80.7 watts per channel. The clipping power at 4 and 16 ohms was 108 and 51.5 watts, respectively. The IHF clipping headroom was 1.29 dB, and the dynamic headroom was 1.65 dB. The harmonic distortion of the CR-840 was so low that without the most advanced test instruments it would have been impossible to measure it (and, in any case, it was not easy!). At 1,000 Hz the total harmonic distortion (THD) was under 0.001 per cent at 0.1 watt output, rising to 0.0012 per cent at 10 watts, 0.0036 per cent at the rated 60 watts, and 0.015 per cent at 80 watts, just at the onset of clipping. The intermodulation distortion was about 0.005 per cent from 10 to 40 watts output, reaching 0.008 per cent at 60 watts and 0.011 per cent at 90 watts. It also rose at very low power levels, reaching 0.05 per cent at 0.1 watt. This low distortion was maintained over the full audio-frequency range. At rated power the THD was 0.005 to 0.006 per cent from 20 to beyond 10,000 Hz, rising to 0.0075 per cent at 20,000 Hz. At reduced power levels the distortion



was even lower, typically well under 0.0025 per cent.

The amplifiers of the CR-840 had a slew rate of 12 volts per microsecond, and the IHF slew factor was 3.1. They could be driven to a reference output of 1 watt by an input of only 15 millivolts (mV) at the aux input or 0.27 mV at the phono input. The corresponding A-weighted signal-to-noise ratios (S/N), referred to 1 watt, were 85 and 81.4 dB (exceptionally good S/N performance). The phono input overloaded at 190 mV at 1,000 Hz, but when the overload was measured at 20,000 Hz and converted to its equivalent value at 1,000 Hz it was 105 mV. This is not seriously low, but it is below the signal-handling abilities of many of today's amplifiers and receivers. The measured input termination of the phono pre-amplifier was 48,000 ohms in parallel with a rather high capacitance of 550 picofarads.

The bass and treble tone controls had conventional characteristics. The **PRESENCE** control action was centered between 3,000 and 4,000 Hz instead of at the lower frequency typical of most midrange tone controls. Yamaha's nomenclature is appropriate, since the control principally affects the sense of presence in the program rather than its overall frequency balance. The **LOUDNESS** contours were as claimed, with a very mild boost action over most of the control range and a much stronger effect in the last couple of steps. The low-frequency filter had a 12-dB-per-octave slope (its measured response was down about

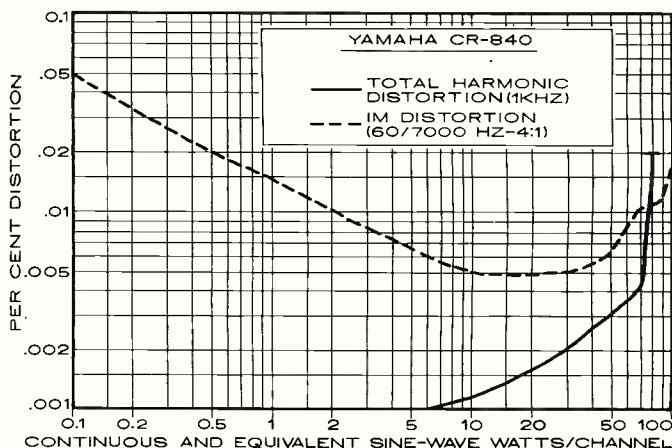
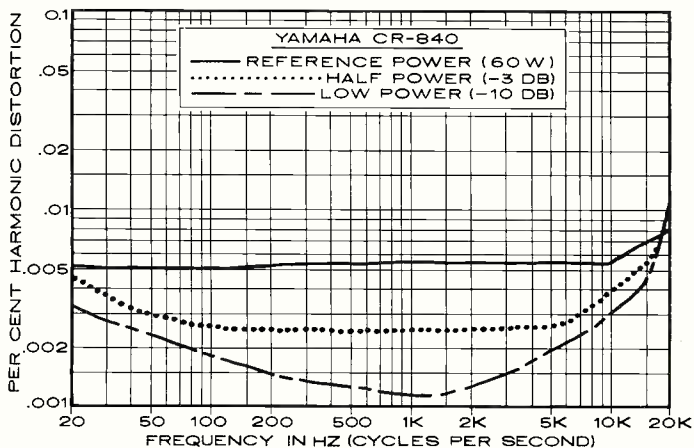
2 or 3 dB at 20 Hz), and it functioned as an effective infrasonic filter. The high-frequency filter, on the other hand, had an ineffectual 6-dB-per-octave slope starting at 6,500 Hz.

The RIAA phono equalization was extremely accurate, with the response varying only 0.5 dB overall from 30 to 20,000 Hz and down 1 dB at 20 Hz. When the phono response was measured through the inductance of typical phono cartridges, there was a broad, slight rise in output over most of the upper midrange and treble, reaching a maximum of about 1 dB at 15,000 Hz before returning to the reference level at 20,000 Hz.

The FM-tuner section had an excellent 50-dB quieting sensitivity of 14.5 dBf (2.9 μV) in mono and 37 dBf (39 μV) in stereo. The IHF sensitivity in mono was almost the same as its quieting sensitivity, 14 dBf (2.7 μV). For weak-signal reception, the CR-840 has excellent properties, with the "distortion" consisting mostly of actual third-harmonic distortion. This provides more listenable reception of very weak signals than in the more usual situation where the weak-signal "distortion" consists mostly of hiss (which is much more audible than harmonic distortion under these conditions).

The ultimate S/N at 65 dBf (1,000 μV) was an excellent 79.2 dB in mono and 71.3 dB in stereo. The distortion at that signal level was only 0.054 per cent in mono and 0.093 per cent in stereo (in the wide i.f.-bandwidth or LOCAL

(Continued on page 52)



The New ADS L810-II

“radical improvements
wouldn't have been possible ...”*



(ADS 810s shown with optional stands F800.)

ADS' Series II speakers are subtly improved over the original versions — radical improvements wouldn't have been possible considering the high quality of the originals. The 810 was highly respected for its extreme clarity, and for the natural, tight bass response it exhibited. The Series II continues to offer these attributes, will handle more power and have better high end dispersion. A fine speaker has been made better, and we recommend it highly.”

**As quoted from the May 1979 Complete Buyer's Guide To Stereo/Hi-Fi Equipment.*

ADS has indeed spared nothing in the quest for perfection.

Less than \$375 apiece, the ADS L810 is accurate enough for the professional recording engineer and affordable enough for the lover of good music at home.

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receiving mode). These figures are close to the residual distortion levels of our signal generator. They were obtained with the OTS/MUTING disabled; with it on, the typical mono distortion ranged between 0.06 and 0.09 per cent, depending on the accuracy of the initial tuning when the knob was released. The stereo threshold was 21 dBf (6 μ V), and the muting threshold was 17.3 dBf (4 μ V).

The stereo-FM frequency response was almost ruler-flat, rising slightly at high frequencies to +0.7 dB at 15,000 Hz. The CR-840 does not use a low-pass or notch filter to remove the 19-kHz pilot carrier components from the audio. Instead, a pilot-signal-canceller circuit is built into the multiplex integrated circuit, and its effectiveness was demonstrated by the -65-dB level of the 19-kHz pilot carrier in the audio (the 38-kHz component was undetectable, less than -90 dB). The stereo channel separation was also impressive—better than 46.5 dB from 30 to 2,500 Hz (and exceeding 50 dB between 100 and 2,000 Hz) before falling smoothly to 32 dB at 15,000 Hz. When the BLEND circuit operates, the separation is reduced to about 7 to 9 dB at all frequencies.

Other FM-tuner performance characteristics included: capture ratio 1.9 dB at 45 dBf (100 μ V) and 1.53 dB at 65 dBf (1,000 μ V), AM rejection 68 and 70 dB, respectively, at the same signal levels, and image rejection 73.5 dB. In the DX (narrow-i.f.) mode, the

alternate- and adjacent-channel selectivity measurements were respectively 79.1 and 25.6 dB (the latter is extraordinarily high, by far the best we have ever measured on an FM tuner). In the LOCAL (wide-band) mode, which is the usual operating condition of the CR-840 in our area, the selectivity figures were 50.3 and 9.4 dB, respectively, still very adequate. The tuner's hum level was 68 dB below 100 per cent modulation. The frequency response of the AM-tuner section was typical: down 3 dB at 20 Hz and 6 dB at 2,800 Hz.

● **Comment.** Our test results on the Yamaha CR-840 receiver not only confirmed its very impressive specifications in all important respects (and surpassed them in many), but they strongly suggested that it is an outstanding product on any absolute scale of measurement without regard to price.

The controls and general tuning and handling "feel" of the CR-840 were up to Yamaha standards, which are among the highest in the industry. To us, the dual program selector (for listening and taping) and the separate loudness compensator (one of the very few truly usable loudness systems) are desirable features that set Yamaha receivers apart from their competitors, and we were happy to see both retained in the components that are part of the 1979 product line.

Judging from what we heard on the AM band, the Yamaha shielded-loop antenna is no

more or less effective than the usual ferrite rod. The rather high phono-input capacitance of the CR-840 suggests that it should be used with cartridges that operate best with higher values of shunt capacitance.

The muting and OTS systems operated flawlessly. No sound whatever is heard from the speakers until a second or so after a station has been tuned in correctly. Then the sound comes up softly, with no trace of a click or thump. The effect when tuning off a station is just as smooth. The OTS makes it perfectly feasible to tune with the SIGNAL QUALITY meter alone for a rough maximum reading (even though no sound is heard). Releasing the tuning knob will then let the receiver tune itself in slowly until the channel-center meter pointer nears the center of its range. Only at that point will the receiver unmute, and the final tuning point, according to our measurements, will provide very nearly the lowest possible distortion—lower, in any case, than one is likely to obtain by conventional manual tuning.

We have not touched upon Yamaha's many novel and interesting circuit and design features, which are referred to in their literature. Suffice it to say that they make it possible for a moderate-price receiver to provide performance that would have been unimaginable only a short time ago.

Circle 142 on reader service card



KEF Model 105 Speaker System

DURING the past year or two, we have read much about the KEF Model 105 speaker system, principally in the British hi-fi press. Without exception, the subjective comments have been most enthusiastic, and as we learned more about this unusual product we looked forward to putting it through its paces in a familiar environment. We have now had

the opportunity to make such an evaluation.

It is a little hard to know where to start when describing the Model 105. Its appearance with its grille removed is distinctive: a two-tier superstructure atop a moderately large floor-standing bass section. The system was designed to minimize time-delay distortions, and one result of this effort is its unusu-

al shape (it has been remarked that without its grille the Model 105 looks like a pregnant robot). The midrange and high-frequency drivers of the three-way system are individually housed in molded, fully sealed enclosures whose rounded corners and edges are said to reduce diffraction effects that could disturb the phase coherence of its total output. The two drivers form a separate "head" that is adjustable over an angle of ± 30 degrees in azimuth and ± 7 degrees in elevation.

The midrange frequencies are radiated by a small driver whose Bextrene cone measures about 4½ inches in diameter. At 2,500 Hz there is a crossover to a 2-inch Mylar-dome tweeter, and the crossover from woofer to midrange takes place at 400 Hz. The bass frequencies are radiated from a 12-inch Bextrene-cone woofer housed in a 2.5-cubic-foot fully sealed enclosure. The driver levels are factory set, and the Model 105 has no user-adjustable balance controls. The entire speaker system, which weighs about 80 pounds, is mounted on ball casters that simplify moving it about.

The purpose of the rotatable and tiltable mid/high-range driver head is to ensure a uniform frequency response throughout a specific listening area (which KEF calls the "listening window") and thus provide a stable stereo image as one moves about. This adjustment is facilitated by LED's installed in a recess in each head so that their light is visible (through a narrow "window") only to someone in a position to hear the full range of fre-

(Continued on page 54)



Next best will cost you \$5.00

The demand for Micro-Acoustics cartridge clinics is so great, we simply can't keep up.

So we've done the next best thing.

But a word about the best thing first. If you've ever been to a Micro-Acoustics Clinic in your dealer's showroom, you know that it involves the most comprehensive examination of a cartridge ever devised. When you leave, you clearly understand what your cartridge is doing, and, alas, what it is not. You become aware, for example, not only how faithfully your cartridge is tracking the groove, but how it performs in many critical areas such as square wave and transient ability, IM distortion and capacitance effects.

The next best thing is our special test record. It's like none you've ever heard before. The record is specifically designed to test *both* tracking *and* transient ability. One side contains a remarkable series of electronic and musical tests, while the other side is pure music, for sheer enjoyment.

Of course, we, and your dealer, will do everything we can to let you know when there's a clinic scheduled in your area. In the meantime, we suggest that this unique record is almost like attending a Micro-Acoustics Clinic — every

time you decide to use it.

Just one friendly note of warning. Knowing the results of a diagnosis is sometimes a painful experience. But only when there's nothing you can do about it. Fortunately, in this instance, you can do something. Like listening to one of our Micro-Acoustics direct-coupled cartridges, which are equal to the challenge of any clinic of any kind.

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Enclosed is \$5.00 each for _____
Micro-Acoustics TT-2002
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Micro-Acoustics
Because good tracking isn't enough.

quencies being radiated by the drivers. To orient the speakers, a knob in the rear of each head is set to LISTENING WINDOW and a steady signal (such as interstation hiss from an FM tuner) is applied to both speakers. If necessary, the heads are rotated and tilted so that both LED's can be seen from all portions of the room where listeners are expected to be. Then the knobs can be set to OFF or one of their power-indicator positions. These latter correspond to peak-power levels into the speaker (actually, into an 8-ohm load) of 40, 50, 60, 80, 125, 150, and 200 watts (the last is the maximum power rating of the speaker). The flashing of one of the LED's is easily visible anywhere in the chosen listening area (even a very brief overload will cause the light to glow long enough to be seen) and indicates that the previously selected power level has been exceeded.

In the rear of the adjustable head are fuses for the midrange and high-frequency drivers, plus a spare for each, and the knob for adjusting the vertical tilt of the head. A black grille cloth on a wooden frame hides both the superstructure and the woofer cone from view. The exposed portions of the enclosure are covered with walnut veneer. The KEF Model 105 is 38 inches high, 18 inches wide, and 16¾ inches deep. The speakers are sold only in matched pairs. Price: \$1,900 per pair.

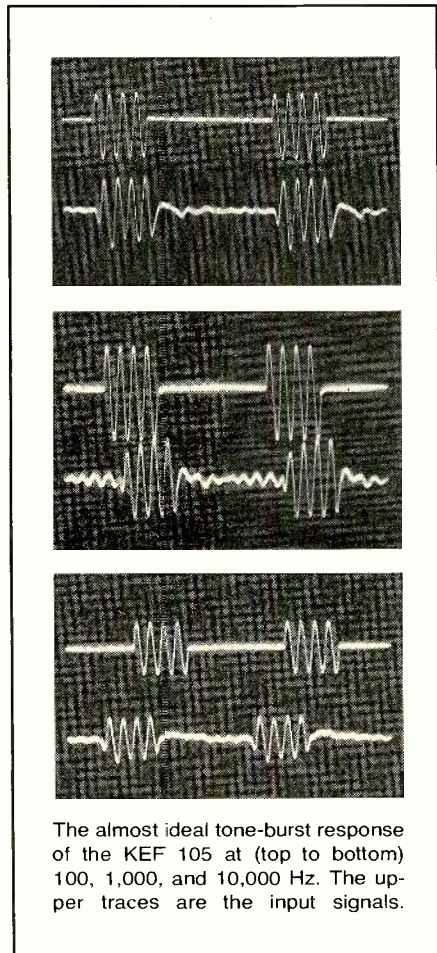
● **Laboratory Measurements.** The midrange and high-frequency response of the KEF Model 105 in the reverberant field of our listening room was measured first with each speaker's head oriented toward the microphone (which was in our usual listening position) and again with the heads facing directly forward. The only difference between the two sets of curves was in the spread, or difference, between the high-frequency outputs from the two speakers, one of which was placed about 30 degrees off the axis of the microphone. The integrated output, corrected for the room response, was identical in both cases, as it should have been since our test method essentially measures the total acoustical power radiated by the speakers. Our curves showed that the tweeter dispersion was only moderately wide. This is not surprising in view of its relatively large dome diameter and KEF's controlled-dispersion design approach. However, when the driver heads were positioned correctly, the pair of KEF Model 105's distributed all frequencies evenly throughout the listening area.

The woofer response, when measured separately, was very strong in the low bass but rolled off gently above 100 Hz. At the nominal 400-Hz crossover frequency it was about 13 dB below the average level in the 40- to 100-Hz range (the woofer output varied only ± 1 dB from 37 to 130 Hz). But since the reverberant-field measurement showed no sign of an output drop in the crossover region (in fact, there was a slight increase at about 250 Hz), we assume that the matching of the drivers and the properties of the crossover network compensate for this apparent anomaly.

The response of the KEF Model 105, including all the "bumps" and "dips" that are usually associated with room/speaker interaction, was within ± 2.5 dB from 35 to 20,000 Hz. Furthermore, it was almost perfectly flat in the uppermost octave, varying no more than ± 0.2 dB from 8,000 to 20,000 Hz; no doubt it extended well above 20,000 Hz, but our room calibration ends there and we do not

attempt to extend acoustic measurements beyond the audible range.

The Model 105 would be noteworthy for its wide, smooth, uniform frequency response, but in some ways we were even more impressed by the low distortion of its woofer response. Many of the distortion readings we obtained were not much higher than one measures with amplifiers. The distortion was



The almost ideal tone-burst response of the KEF 105 at (top to bottom) 100, 1,000, and 10,000 Hz. The upper traces are the input signals.

typically from 0.2 to 0.3 per cent in the 80- to 100-Hz range with either 1 or 10 watts input. With 1 watt the distortion was still a mere 2 per cent or so at 30 Hz, and with 10 watts it measured 5.6 per cent at that frequency.

The measurements we had made up to this point left us in no doubt that the KEF Model 105 is an outstandingly fine speaker. But what were the specific results of its unusual physical configuration and the rather extraordinary effort to optimize its transient-response characteristics? Tone bursts were reproduced in the almost-perfect manner we have come to associate with speakers that are really free of major time-delay distortions (as opposed, of course, to those that merely claim to be). The bursts were almost ideal at all frequencies and with the microphone in any position in front of the speaker. It was not necessary to search for a few special frequencies and microphone positions in order to obtain recognizable tone-burst photos (the usual procedure with most speakers). The pictures we made at arbitrarily selected frequencies and microphone loca-

tions were almost identical in character to the bursts we saw at every other frequency and position we tried.

The sensitivity of the Model 105 was exactly as rated: it delivered an 86-dB sound-pressure level at a 1-meter distance when driven by 2.83 volts of random noise in the octave centered at 1,000 Hz (corresponding to 1 watt into 8 ohms). Its impedance curve showed a number of up and down variations, but they were within fairly narrow limits. The maximum was about 25 ohms at 2,700 Hz, and minima of 6 to 7 ohms were observed at 100 and 600 Hz. In our view, the speaker's nominal 8-ohm rating is well justified.

● **Comment.** Our subjective judgment of the sound of the KEF Model 105 was, most of all, that it was very smooth, with strikingly less coloration in any part of the audio range than we are accustomed to hearing from speakers of any kind. It has been likened to the sound of a good full-range electrostatic speaker, but not having one of that type on hand for a side-by-side listening test, we can only say from memory that the comparison is not an unreasonable one.

KEF claims, and we verified, that one can move around these speakers, and even between them, with remarkably little subjective shift of the sound pattern. In this respect they resemble some omnidirectional speakers, although they are certainly not omnidirectional, nor do they sound like any omnis we have ever heard. Compared with our regular acoustic-suspension systems, the Model 105's are somewhat "airier" and less heavy-sounding, although their deep-bass response is not very different from that of our usual speakers. The KEF Model 105 seems to us to incorporate the best qualities of dynamic drivers with an absolute minimum of their weaknesses.

KEF's literature describes the highly sophisticated computer-assisted design and testing methods that went into the creation of the Model 105 (and are still used regularly in production testing). By use of "Fast Fourier Analysis" of the speaker's response to an impulse, the full amplitude and phase response of the system is derived. In production, every driver is measured individually, and its characteristics are computer-matched to those of the other drivers and the crossover components that make up a matched pair of systems. Just as Rolls-Royce is reputed to keep data on the individual hides and wood veneers that go into their cars, KEF has the complete data on all parts of every one of their speaker systems stored in their computer files. Thus, if a replacement driver is needed in the future, a unit can be supplied that will exactly match the performance of the original one and therefore "harmonize" with the rest of one's existing system.

A brief report such as this cannot cover all the fascinating details of this system, but it is worth mentioning that every pair of Model 105's is given a critical listening test in a suitable environment, using music and other program material, before being shipped out. This is in addition to the myriad of more technical tests. One reaction to the KEF Model 105 can best be expressed by saying that it is one of the few speaker systems we have tested that we would unreservedly enjoy owning.

Circle 143 on reader service card

(Test reports continued on page 56)

Restore the impact of "live" ...easy as 1-2-3.



No matter how accurate your stereo system is, it's only as good as the records and tapes you play on it—and they leave much to be desired. The recording process does some terrible things to live music, and one of the worst is robbing it of dynamic range, the key element which gives music its impact.

Fortunately dbx has developed a whole line of linear dynamic range expanders which can restore lost dynamic range.

1BX. The 1BX is the most sophisticated one-band expander on the market. Its RMS level detector incorporates an infrasonic filter to prevent mistracking caused by turntable rumble and record warp.

2BX. The 2BX divides the frequency spectrum into two bands and expands each separately. It doesn't allow the bass to influence the vocals or midrange instruments, and in strongly percussive music, that's important.

3BX. The 3BX is the state-of-the-art, but with the introduction of the 3BX-R Remote Control option, it's more flexible and more fun than ever. The 3BX divides music into three frequency bands. Low bass will not influence the midrange. And midrange crescendi will not boost low level highs, so operation is virtually inaudible. For complex musical material, the 3BX is the best way to restore dynamic range.

All dbx expanders have design features in common. All utilize true RMS level detection. All feature a program-dependent release time, for natural, life-like sound. All are true stereo expanders that maintain rock-solid stereo imaging. And all dbx linear expanders have a pleasant benefit—up to 20 dB of noise reduction.

The 3BX is still the standard. But now there is a family of dbx expanders designed to bring any system one step closer to "live."

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CIRCLE NO. 12 ON READER SERVICE CARD



Soundcraftsmen SP4002 Preamplifier

THE Soundcraftsmen SP4002 "Signal Processor/Preamplifier" is a very versatile control center combining a high-quality phono preamplifier and a ten-octave graphic equalizer. The separate groups of equalizer slide controls for the two channels provide a nominal ± 15 -dB range in bands centered at 30, 60, 120, 240, 480, 960, 1,920, 3,840, 7,680, and 15,360 Hz. Level-adjustment controls compensate for the overall gain shifts that can occur when several equalizer slide controls are used simultaneously.

The SP4002 is actually more than a graphic octave-band equalizer. It is a fully flexible tape-recording control center with tape-monitoring and cross-dubbing connections selectable by pushbutton switches. A pair of front-panel jacks parallels the rear tape-recorder connections for one machine. Two EXT LOOP circuits, controlled by front-panel pushbuttons, connect various accessories (such as Dolby, dbx, or other external signal processors) into the signal path.

Four pushbuttons provide a choice between PHONO 1, PHONO 2, TUNER, and AUX program inputs. The signal-processor controls are a group of buttons at the lower center of the panel. Two control the EXT LOOP circuits, one (EQ) inserts the graphic equalizer, which is otherwise completely bypassed, into the normal signal path, and another inserts the equalizer in the signal path going to the tape recorders. A MONO button parallels the two channels, and another inserts a SUBSONIC FILTER into the signal path. The two headphone jacks on the front panel have a separate amplifier capable of driving phones of from 8 to 2,000 ohms impedance. Plugging phones into JACK 1 shuts off the preamp feed to the power amp.

The only knobs on the front panel of the Soundcraftsmen SP4002 are for the VOLUME and BALANCE controls. On the rear apron are the various signal input and output jacks plus a number of special features associated with the phono inputs. Near each phono input are two gain controls adjustable over a ± 20 -dB range. Normally, the detented center (0-dB) setting is used for typical moving-magnet cartridges. A very-high-output cartridge may require a reduced gain setting, and some moving-coil cartridges can be used when the gain is set to +20 dB. The paired controls permit separate gain adjustments for each channel of each phono input.

There are also two groups of tiny switches near the phono inputs on the rear apron of the

preamplifier. They resemble integrated circuits and are operated by pressing their small plastic actuators with the tip of a ballpoint pen. Each switch group is divided into two sections, one for the left and one for the right channel of that phono input. One switch changes the input resistance from the normal 47,000 ohms to 100 ohms (for moving-coil cartridges). The others add capacitance to the normal 50-picofarad (pF) input capacitance of each input, enabling the total cartridge-load capacitance (exclusive of the cables from the record player to the amplifier) to be adjusted from 50 to 800 pF in 50-pF steps.

The Soundcraftsmen SP4002 can switch the a.c. power to a high-power amplifier, since its four switched a.c. outlets can handle a total of 1,000 watts. There are also two unswitched outlets. The SP4002 is finished in flat black with accents of silver on the front panel, and it has a pair of sturdy handles. (The wood side panels can be removed for standard rack installation.) The unit is 19 inches wide, 7 inches high, and 11 inches deep; it weighs 28 pounds. Price: \$699.

● **Laboratory Measurements.** With the IHF standard load of 10,000 ohms in parallel with 1,000 pF, the outputs of the SP4002 clipped at 11.8 volts rms at frequencies from 20 to 1,000 Hz. At 20,000 Hz the maximum output was about 5.5 volts, which should be more than adequate under any circumstances. The total harmonic distortion at a 1-volt output was 0.006 per cent at 20 Hz, 0.0018 per cent at 1,000 Hz, and 0.01 per cent at 20,000 Hz. Intermodulation distortion was 0.002 per cent at 1 volt and 0.003 per cent at 10 volts.

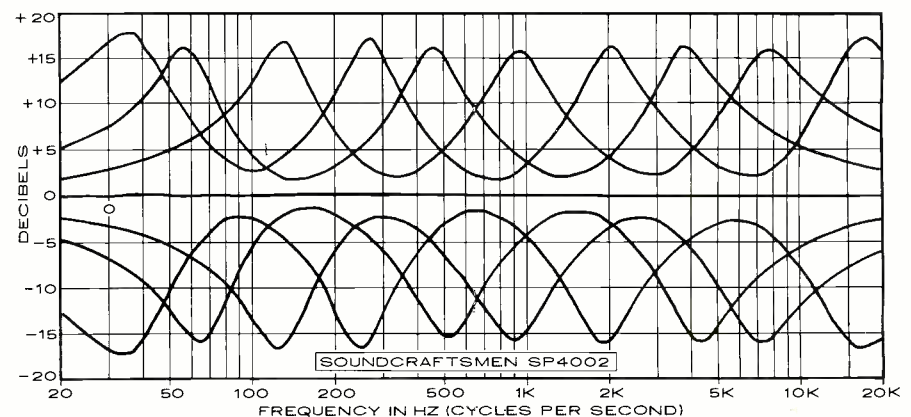
For a reference output of 0.5 volt, the high-level (TUNER or AUX) sensitivity was 85 millivolts (mV). The phono sensitivity was adjustable from 0.096 to 10 mV. The A-weighted noise output was unmeasurable (less than 100 microvolts, or -74 dB referenced to 0.5 volt) through both the AUX input and the phono input when the phono gain was set to 0 or -20 dB. At the maximum phono-gain setting (which would be used for a moving-coil cartridge), the output noise was -63 dB referenced to 0.5 volt.

The phono-overload levels were 115 mV at a 0-dB (normal) setting and 95 mV at the seldom-required minimum gain of -20 dB. At maximum gain (the moving-coil setting), overload occurred at a 15-mV input. The phono-input resistance was 47,000 ohms (100 ohms when set for moving-coil cartridges), and the capacitance introduced by the input switches was within 20 per cent of the indicated values. The RIAA phono equalization was within $+0.5$, -1 dB of ideal from 20 to 20,000 Hz. It was affected hardly at all by the inductance of a phono cartridge at the input, which made less than a 0.5-dB change at any frequency. The infrasonic filter began to roll off the response below 30 Hz, and it was down about 4 dB at 20 Hz. The equalizer controls are capable of providing a nearly infinite number of response curves. With the controls centered, the response is ruler flat even when the EQ button is engaged.

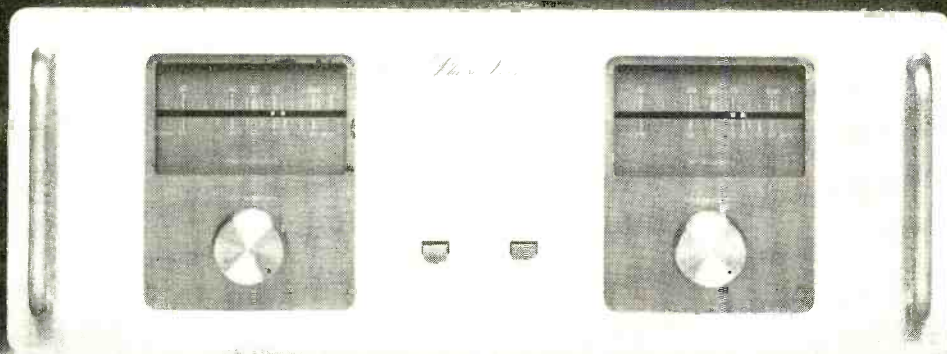
● **Comment.** The equalizer section aside, the Soundcraftsmen SP4002 is obviously a highly versatile control center whose performance and sound quality should satisfy the most critical listener. We obtained fine results using several different phono cartridges—including a high-output moving-coil unit. It should be noted that Soundcraftsmen recommends the SP4002 only for use with moving-coil cartridges that deliver at least 0.28-mV output.

The greatest appeal of the Soundcraftsmen SP4002 will probably be to people who have definite ideas about the octave-to-octave balance they want to hear from their music systems and are willing to trust their ears in setting the equalizer controls. Without question, the SP4002 is at least as good as any comparable equalizer we have seen (barring those with more than ten bands, which are usually more expensive and harder to adjust). In our view, a good octave-band equalizer and a high-quality, very flexible control preamplifier with above-average tape-recording facilities make a fine combination, and the Soundcraftsmen SP4002 is the proof.

Circle 144 on reader service card



ONE OF THE WORLD'S GREAT POWERS.



THE PHASE LINEAR 700 SERIES TWO.

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

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

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

GREATER POWER RESERVES MEAN GREATER HEADROOM

The Phase 700 Series Two is rated at 360 watts per channel,

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

INCREASED ACCURACY AND PROVEN RELIABILITY

The original Phase 700 was designed for home use, but it rapidly won the approval of the pros. Its proven dependability on the road made the 700 a favorite touring amp for super groups and sound reinforcement companies.

The Phase 700 Series Two retains this legendary reliability, and improves sonic accuracy by utilizing an advanced BI-FET input stage. This integrated circuit keeps the output virtually identical to the input. Beautiful music in, beautiful music out.

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

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

SPECIFICATIONS:

Output Power: 360 WATTS, MIN. RMS PER CHANNEL 20Hz-20kHz INTO 8 OHMS, WITH NO MORE THAN 0.09% TOTAL HARMONIC DISTORTION.

Continuous Power Per Channel At 1000Hz With No More Than 0.09% Total Harmonic Distortion: 8 OHMS-450 WATTS, 4 OHMS-550 WATTS.

Intermodulation Distortion: 0.09% Max (60Hz: 7kHz-4:1).

Damping Factor: 1000:1 Min..

Residual Noise: 120uV (IHF "A").

Signal To Noise Ratio: 110dB (IHF "A").

Weight: 45 lbs. (20 kgs).

Dimensions: 19"x7"x10"
(48.3cm x 17.8cm x 25.4cm).

Optional Accessories: Solid Oak or Walnut side panels. E.I.A. standard rack mount configuration.

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Power!

That's the Jensen Car Stereo Triax® II. That's the thrill of being there.

Power is right! 100 watts! Now, all the energy and intensity that went into the original performance comes through the Jensen Triax II 3-way speaker.

This incredible 100 watt capability gives the Triax II an unparalleled clarity of sound throughout the entire spectrum.

What gives the Triax II its great power handling and sound reproduction? For starters, the piezoelectric solid state tweeter with low mass and incredible power handling capabilities. It starts reproducing crystal clear high frequency signals at 6,000 Hz... and keeps going well past the range of human audibility.

The 6" x 9" woofer of the Triax II boasts a new large diameter barium ferrite 20 oz. magnet. Which means better heat dissipation and more efficiency for clearer, truer sound at higher listening levels.

A new high power 1½" voice coil on the Triax II translates into less distortion and the ability to achieve higher sound pressure levels.

The midrange unit of this remarkable speaker produces smoother sound with better transient response, less distortion and higher power handling... thanks to its large 2.3 magnet structure.

And the Triax II is fully compatible with the advanced bi-amplified power sources for outstanding clarity and separation.

So go to the concert. Hear the Jensen Triax II. That's the thrill of being there.

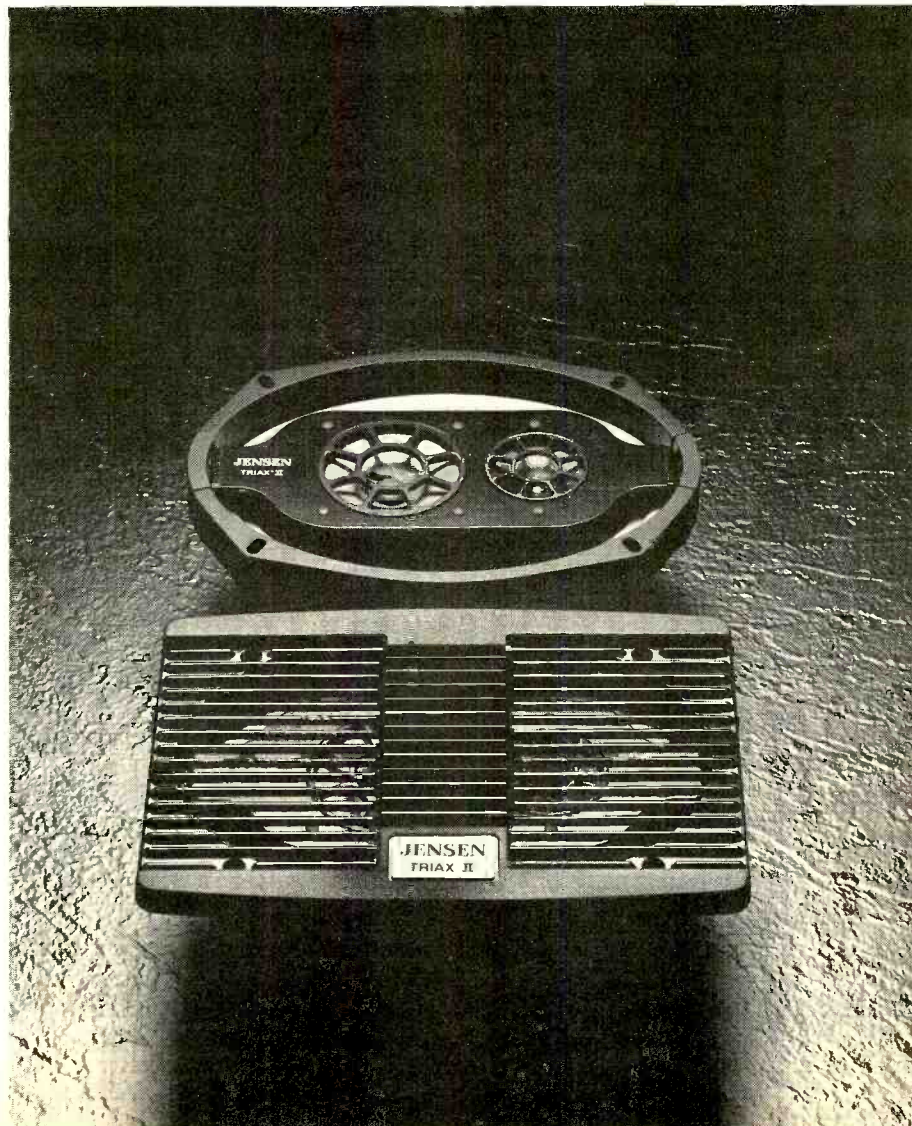
JENSEN

The thrill of being there.

For more information, write Jensen Sound Laboratories,
4136 N. United Parkway, Schiller Park, Illinois 60176.

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CIRCLE NO. 34 ON READER SERVICE CARD



Going on Record

By James Goodfriend



KREMERSPIEGEL

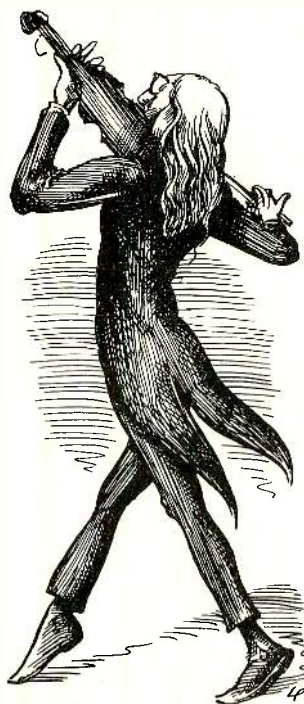
ACCORDING to Herbert von Karajan, Gidon Kremer is the greatest violinist in the world. A signed statement to that effect appeared on Kremer's first American record release, the Brahms Violin Concerto (with Karajan and the Berlin Philharmonic), Angel 37226Q. If Karajan is in the habit of tossing around encomiums like this, I certainly had never been aware of it before. That is one hell of a remark to make about a thirty-one-year-old violinist whom most people on this side of the Atlantic had never heard of.

The world is not lacking in outstanding violinists today, young or old. Ten or so years ago the situation was different, and though we had our Oistrakhs, Sterns, Menuhins, Grumiauxs, and others, there seemed to be no large crop of rookies from which the *future* Oistrakhs, Sterns, *et al.* would spring. Perhaps they were merely overshadowed by the incredible horde of brilliant young pianists, but somehow I doubt it. Consider the scene today, though: Perlman, Zukerman, Chung, Belkin, Fodor, Spivakov, Kim, Oliveira, Milanova (the list is by no means complete), and . . . Kremer. All, to my knowledge, are in their twenties or thirties, and ten years ago only one of them (Perlman) was in the record catalog at all, and that with what I believe was his first record. The Milsteins and Sterns are still with us too. So, to call Kremer the greatest violinist in the world today is hardly to say that there is but one swan in the current flock of geese, but to leave yourself open to the most acerbic kind of disagreement that boils down to a comparison of great, great, and great. Nevertheless, Karajan said it, and the result (on my part, at least) was not only an overwhelming curiosity to hear Kremer but also a desire to try to determine what it is about him that might inspire Karajan to such verbal extravagance.

I have now heard Kremer's recording of the Brahms concerto, heard his recording of the Mozart G Major Concerto and the *Concertone* (Vanguard 71227), heard, courtesy of the German News Company, some of his European recordings of Italian sonatas and other works, and, two nights ago, attended the Carnegie Hall recital he gave with his wife, Elena Kremer, as accompanist. I am reasonably sure I know now what Karajan was talking about.

Kremer is unquestionably unique. He doesn't play like anyone else today, and he certainly doesn't look like anyone else. He is a thin, gangly man who, on stage at least, seems far taller than he really is. He has long blond hair and wears glasses and he seems to drip musicality all over the stage. He was born in 1947 in Riga, Latvia. According to the brief program biography, he comes from a highly musical family, but one doesn't need to be told that in words: the sight and sound of him alone tell you that music is unquestionably his native language.

Kremer plays a Guaragnini violin that he inherited from his grandfather, and the tone he produces from it is extraordinary. It is not the expected fat, luscious Russian sound, nor does he use a wide vibrato. It is a far more silvery sound which carries beautifully at all dynamic levels and which is remarkably unabrasive. There is almost no audible evidence that



something is being pulled across something else, but rather the feeling that there is at least a half-inch of air between the bow and the string at all times, rather like a violinistic equivalent of Debussy's ideal "piano without hammers."

But beautiful sounds alone are not what Kremer is about. Consider his recital program: Stravinsky's *Duo Concertant*, Prokofiev's Sonata for Unaccompanied Violin, Tchaikovsky's *Sérénade Mélancolique* and *Valse Scherzo*, Stockhausen's (!) Six Melodies from "Zodiac," and Schubert's Fantasy in C Major. The encores were Ravel's *Berceuse*, a backbreaking movement from one of Ysaÿe's works for unaccompanied violin, and a funny little piece by a composer named Kupkovich (?) in which the piano harmonically misdirects the violin and the violin keeps bringing in the theme from unexpected notes. I know of no violinist today who programs this way, nor do I know of one who could have gotten so much out of such a variety of material.

Kremer gave each piece its stylistic due while remaining at all time recognizably Gidon Kremer. The Stravinsky, for example, while never taken beyond the bounds of neo-Classicism, emerged with a greater range of expression and of fantasy than I ever knew was in the piece. The Tchaikovsky was soulful enough, but somehow very dignified as well. The Stockhausen was lyrical (within its means) and the Schubert breathtakingly (there were places where *everybody* stopped breathing) lovely and poised on the knife edge between Classical and Romantic. The Ravel was exquisite and the Ysaÿe the purest bravura—just to show that he could do it. And the Kupkovich was genuinely funny.

Throughout the recital Kremer's style remained inviolate; not the Russian heroic style, but lyrical-intellectual, cool or warm as the occasion demands, the same style as on his records. Throughout the recital too his technique and intonation were extraordinary (he had a fielding average of about .998, which is fine for a left fielder, not to mention a violinist). Kremer also provided a visual element, for he is the danciest violinist I have seen in years. While never vulgar about it, he does much to make the music *visible* with a pointing of the toe, a flexing of the knees, or a twist of the trunk. The whole dance is oddly and wonderfully natural; there's not a hint of the prepared act about it, but it conjures up a historical vision and makes manifest still another characteristic of the man and his playing.

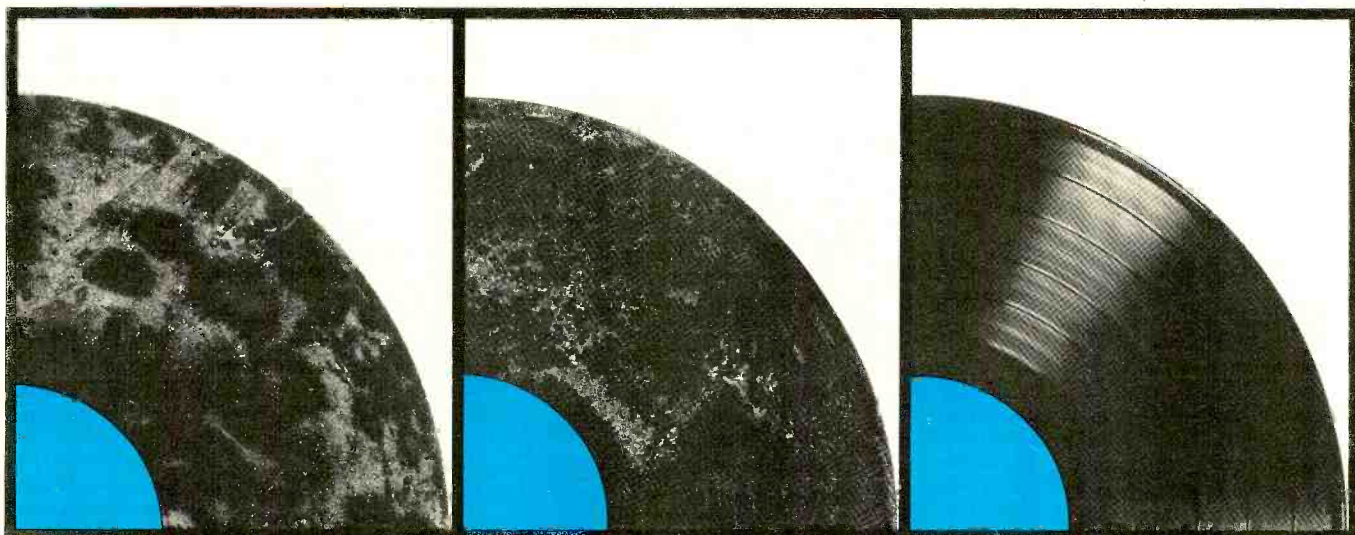
FOR perhaps the final fascination of Kremer is that he is in himself—unconsciously so and in the best sense of the term—"theater." As he produces the music he does, as he goes through the steps of his interpretive dance, he is not only a great violinist but the *symbol* of a great violinist, an *Urfigur*, the stuff of myths. His gaunt frame seems to echo every musical soul who played and danced his way through now-vanished towns and hamlets, carrying in him this age-old, peculiar, human condition of musicality, of communication in tones translatable into no other human language. He is a mirror not only of the past but of all human time. Someone should write an opera around him, giving the words to others and to him only the violin and the movement. It should have a mythic title, simply *Paganini* or *Kreiser*—or *Kremer*. □

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CIRCLE NO. 44 ON READER SERVICE CARD



The Pop Beat

By Paulette Weiss

Disco jockey Richie Rivera (right) and producer Joe Long during the final mix of "Gershwin '79" at Sigma Sound Studios in New York.



DISCO GOES LEGIT

THIS may well be remembered as the year boogie fever swept Broadway and hit mainland China, the year Rod Stewart and George Gershwin went disco, the year light-in-the-dark disco shoes sold for \$100 a pair in the better department stores. In short, in 1979 disco is going legit.

Nobody can pinpoint the exact moment when disco music was born, but it had already been around for a couple of years when *STEREO REVIEW* published its first article on the subject in September 1976. Clifford Terry, who wrote the article, prophesied then that disco would be with us for some time. To give you an idea of how far things have gone since, Terry is now the manager of a just-opened New York disco called Fifth Avenue.

At Disco Forum V, a recent four-day convention sponsored by the music-trade magazine *Billboard*, the message I got repeatedly was that not only is disco officially joining the musical mainstream in 1979, but this year it may outstrip rock as the dominant form of American popular music. At the convention, 1,300 music-industry representatives from fifty states and sixteen foreign countries gathered in New York to discuss the pursuit of the disco dollar. The Forum's discussion panels and exhibits spotlighted several trends that indicate just how heavy the commercial action will become.

It is estimated, for example, that the disco "industry" will gross more than six billion dollars this year. The big record companies that took a wait-and-see attitude when the disco fad began are now moving fast to cash in on it. RCA has for some time had distribution deals with a number of successful little disco labels, and Capitol, Elektra/Asylum, Mercury, and the others are in various stages of raising their disco consciousness. Only Columbia seems still to be sleeping—its only strong move into disco so far is a production arrangement with Sam Records, a hot little newcomer that features Gary's Gang.

Beside the golden arches of shopping-mall McDonalds and elsewhere along America's highways there may soon be enormous gilt disco shoes proclaiming the presence of a local branch of some international chain of discothèques. The 2001 chain has already franchised two dozen outlets in this country, all computerized and designed to process danc-

ers through an evening's entertainment like living Big Macs. Another chain, Club 747, has a patented decor that looks like the inside of a jumbo jet.

Disco, like rock before it, has crashed through many cultural, political, and linguistic barriers and is still spreading. In Moscow last December, scalpers ran out of tickets at 150 rubles (\$225) each for concerts by the disco group Boney M, and this year China's new Pepsi generation can dance off extra calories in that country's first discothèque. If all goes



well when the club opens in Shanghai, more will follow. (How do you say "shake your booty" in Chinese?)

A sure sign that disco has become respectable is its appearance this year in Broadway's legitimate theater. Four disco musicals have been announced so far. *Gottu Go Disco* is scheduled for early May, and *Discotheque*,

Holy Moses and the Top Ten, and *Phantom of the Disco* will follow soon after.

Television, the great (if clumsily tardy) disseminator of pop culture, will increase its coverage of disco with the coming fall season. According to the National Association of TV Program Executives, a show called *Disco Magic* looks to be the *second* hottest property for fall (the *Muppet Show* is first). Other disco programs are expected to be popular, but if Muppeteer Jim Henson could just persuade Kermit the Frog to put on a three-piece white suit and do the Freak, he'd probably make Nielsen-rating history.

Last year radio station WKTU-FM in New York switched from a mellow rock format to all-disco and surprised many broadcast-industry experts by getting ratings that knocked the nation's undisputed Number One, WABC-AM, down to second place. Since then, stations across the United States have been feverishly reprogramming for disco.

The Down with Disco shirts have disappeared into rock fans' closets as one famous rock star after another has "gone disco." Rod Stewart's *Da Ya Think I'm Sexy?* topped the disco charts earlier this year, and, one by one, Blondie, the Doobie Brothers (!), the Beach Boys (!!), and even the Kinks (!!!) have succumbed. For anyone who requires further evidence of disco's legitimacy, I submit the fact that a pure disco album has just been recorded for A&M by the first lady of the American musical theater, Ethel Merman. Made up of new interpretations of her greatest Berlin, Porter, and Gershwin hits, including *There's No Business Like Show Business*, *Anything Goes*, and *I Got Rhythm*, the album is called "Anything Still Goes."

Sound and lighting-equipment systems are now available that can turn a living room into a disco. New clubs of all kinds—kiddie discos and roller discos as well as the standard discothèques—will be opening all this year, and a new breed of pop artist has stepped forward to create and play the music they run on. One of the best of them is Richie Rivera (see cover) who is not only the disc jockey at the Flamingo disco in New York but is also responsible for recording some of the very records he plays. He did the mixing for the hot "Midnight Rhythm" album reviewed here last month, and at Sigma Studios I recently observed him in action assisting producer Joe Long with tracks for a forthcoming record. A lot of disco may sound simple and monotonous, but mixing it is a complicated, even ticklish process. In addition to a knowledge of electronics, a good disco producer must have a keen sense of timing in order to get maximum psychological (physiological?) impact out of all the sound he juggles.

ONE of the best measures of any dance mania worthy of the name is its ubiquity, and if it has anything, disco has that. For example, the U.S. Navy is said to have considered the Village People's hit *In the Navy* for a 1979 recruitment campaign. And I am planning to get married shortly in the first wedding-on-wheels ever in a Brooklyn roller disco. Even for rock fans not amused by the seemingly ruthless disco takeover, there is hope in another new trend I've noticed: New York now has at least three discos that play nothing but *rock*. This may be the year when somebody in your town opens a place you can go to in your light-in-the-dark shoes and boogie to the music of—Southside Johnny. □

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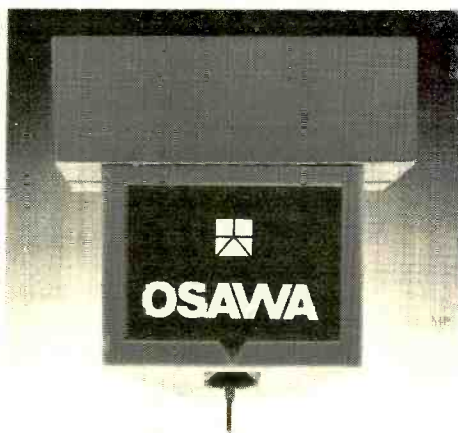
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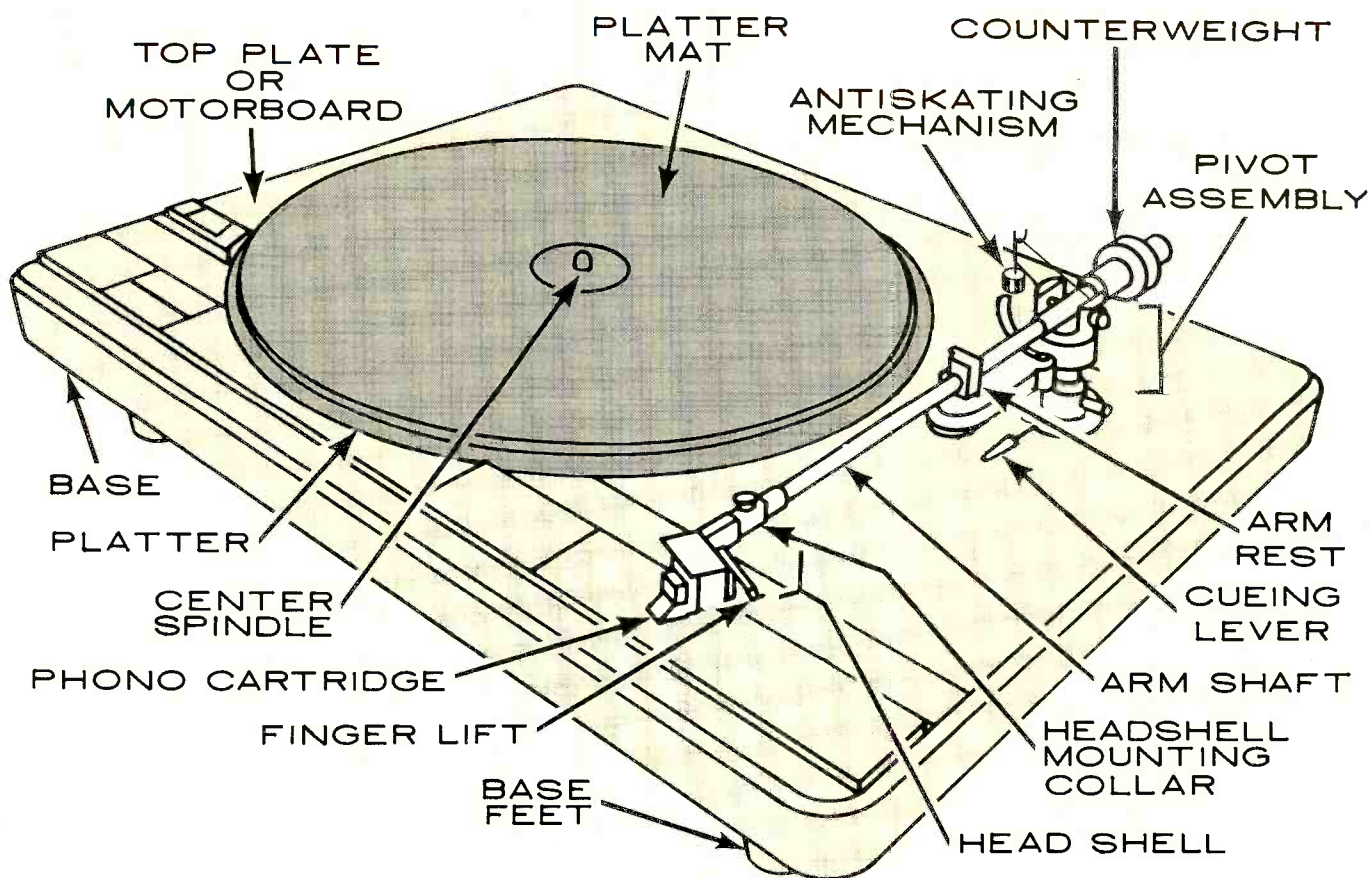
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CIRCLE NO. 48 ON READER SERVICE CARD



A TURNTABLE PRIMER

By Gary Stock

LIKE Gaul, all turntables are divided into three parts—a platter/motor assembly, a tone-arm assembly, and a base that supports both and isolates them from external shock and vibration. The responsibilities of each of these elements would appear to be

quite straightforward, and if all went perfectly, platters would rotate silently at precisely the correct speed, arms would permit styli to move freely along the record's spiral groove, and bases would support these two components with the imperturbable solidity of a

marble bust of Caesar. Alas, as with all human endeavors, some degree of imperfection is inevitable, even in turntables. To see where the problems arise and what measures are used by design engineers to combat them, let's examine each of the elements individually.

Platter and Motor

The platter/motor system is comprised of a large disc, or "platter," on which the record rests, and an electric motor. The platter is usually supported at its center by a single main bearing, and an electric motor rotates it either directly or by means of some sort of drive linkage. As shown in Figure 1(A), the platter may be driven by an idler wheel, a small rubbery disc that transmits the rotational force from the motor shaft to the platter. It is possible to transmit a great deal of torque from the motor to platter by this means, and for that reason it has been used extensively on record changers, which at one time required the substantial torque, or rotational energy, provided by an idler-wheel system to operate cycling and shutoff mechanisms. Unfortunately, in addition to turning the platter, idler wheels tend to transfer some of the vibration of the motor to the platter, the record, and finally to the playback stylus. This vibration turns up in the musical signal as rumble, a low-pitched "distant thunder" background noise.

Consequently, most turntable manufacturers, including changer makers, have in the past few years converted to another classic torque-transfer method: belt-drive, an arrangement in which a continuous belt forms a loop around both the motor shaft and the platter or its special inner rim—see Figure 1(B). Because the transfer of torque occurs through a highly flexible, more or less loosely coupled medium, very little motor vibration is transferred to the platter. Belt-drive turntables as a class have relatively low rumble levels, although the loose coupling between platter and motor also reduces the available torque.

The third, most recent type of system, direct-drive, shown in Figure 1(C), has the motor mounted directly beneath the center of the platter, with an extension of the motor's shaft serving as the spindle shaft of the platter as well. Although motor and platter are in intimate contact on direct-drive turntables, the very low rotational speed of the motor effectively avoids many of the vibration-related problems that a higher-speed motor would exhibit, thus enabling direct-drive units to achieve rumble figures in the same range as those of belt-drive tables, and usually far below audibility. Because they do not depend on the friction of a rubber belt or wheel for coupling, many direct-drive units apply very high torque to the

platter and are commonly used not only in home systems but also in radio stations and discos where the turntable's ability to come up to operating speed rapidly is important.

Most contemporary turntables use one of three methods to establish and maintain accurate speed. The simplest motor type, the so-called induction motor, has its speed determined by the 60-cycles-per-second alternation of the nominal 120-volt a.c. house current; it is subject to speed variations caused by momentary changes in the line voltage and by the effects of both tone-arm and record-cleaner drag. More sophisticated synchronous motors also use the tightly regulated 60-Hz frequency of house current as a reference to insure speed accuracy, but their internal structure provides a tighter "lock" onto the 60-Hz line, making them less subject to speed variations resulting from voltage shifts. This method, however, cannot compensate for external *mechanical* causes of speed irregularities. The most advanced type, the servo-controlled speed system, monitors the speed of the motor or platter continuously, comparing it to some reference such as a regulated voltage or an internally generated frequency (often controlled by a quartz crystal), thus constantly correcting any speed error.

Servo-control systems of some type are invariably used on direct-drive turntables, and a number of belt-drive machines have adopted them as well, but with important differences. Some detect the speed error at the motor shaft and hence cannot correct for speed variations at the platter that may result from belt slippage when the turntable is under load. The more sophisticated systems "read" the platter's rotational speed directly; any deviation from the selected speed produces a prompt corrective effect.

Other parts of the platter/motor system can also influence the character of the sound heard. The composition of the platter and main bearing material may themselves cause problems. A main bearing with loose tolerances or rough contact surfaces will tend to "grind" or wobble on a microscopic scale, adding to whatever rumble is produced by motor vibration; most manufacturers of high-performance turntables therefore polish and fit main bearings to very close tolerances. Some creators of all-out designs go even further, constructing bearings of dissimilar materials such as oil-filled plastic and tempered steel, or suspending the platter on a "cushion" of magnetic repulsion or even

compressed air, in an effort to reduce further the rumble produced by the platter-support system.

Some designers consider it important that most platters are metal castings or stampings which, if undamped, can "ring" much like a bell. Although the degree of ringing caused by, say, a jarring of the turntable or a loud bass note cannot be heard if unamplified, some engineers believe that it may be transmitted from the platter to the record and stylus to be eventually heard through the loudspeakers as a vaguely unnatural boominess or echoing quality in the bass and midrange. The platter mat is therefore thought by some to be an important element, for it deadens ringing and vibration in both the platter and the record in much the same way that a percussionist silences cymbals by pressing them against his body.

The weight of the platter may have an effect on performance too. A massive platter will have much greater inertia than a lightweight one, and it will therefore come up to operating speed less rapidly (though this is rarely a problem in home systems). Once in motion, however, it will remain relatively immune to *momentary* variations in drag or motor speed because of its flywheel-like characteristics. Today, however, turntables that regulate speed by electronic means rather than mechanical inertia are increasingly common, and a turntable with a massive platter casting is not now necessarily superior to a unit with a lighter one.

The Tone Arm

The term "tone arm" has been carried down from the early days of sound reproduction, when arms actually transmitted sound from a diaphragm in the "head shell" down along their length to a horn that projected it at modest volume into the room. Modern arms, of course, are specifically designed *not* to transmit sound acoustically; instead, their function is simply to hold the phono cartridge in a proper relationship to the record groove while exerting as little influence of their own as possible. In practice, the accomplishment of this goal faces an awesome array of obstacles, large and small, most imposed by what might be called the "minor sins" of the various parts of the arm.

A primary responsibility of the arm is to allow the cartridge to follow the groove both

TURNTABLES...

"The simplest solution to the problem of arm-cartridge resonance would be warp-free records, but technology is nowhere close to that goal."

laterally, as it spirals inward, and vertically, as it pursues its course over warps and other surface irregularities. Theoretically, the arm should present no resistance to this movement whatever, but in practice all arms have both *inertia* (a concept to be discussed below), and *friction* in their bearings (see *Bearing Type* in the Glossary on page 69).

Another responsibility of the arm is that of imparting a controlled amount of downward force (called *vertical tracking force*) to the cartridge to keep the stylus from losing contact with the groove. Vertical tracking force can be applied in a number of ways. The simplest employs a main counterweight placed behind the pivot to counterbalance the mass of the arm and cartridge. Tracking force is then set by moving a section of the counterweight until an imbalance equal to the desired downward force is achieved. Alternatively, a second small weight is used to apply the actual force after the large weight has balanced the arm. Counterweights and springs are also often used in combination, a counterweight being adjusted initially to balance the arm and a spring in front of (or around) the pivots to apply a downward force. (See Figure 2.)

In recent years, steps taken to reduce the tracking-force requirements of phono cartridges have in turn demanded low-mass tone-arm designs. The problem to be dealt with is the arm/cartridge resonance produced by the interaction of arm, cartridge, and record surface. [To diverge for a moment, we might say that all objects tend to vibrate when mechanically excited, and the frequency at which an object prefers to vibrate is its resonance frequency. The classic analogy used in most physics textbooks to describe resonance is that of a weight and spring, as shown in Figure 3. When the weight is moved or excited by some outside force, either directly or via the spring, it will begin to bob up and down at a certain rate, that rate being the resonance frequency of the spring-and-weight system. This frequency will be determined by two factors: the *mass* of the weight and the "looseness," or *compliance*, of the spring. A heavier weight or a looser spring will reduce the resonance frequency (make the weight bob more slowly); a slighter weight or stiffer spring will increase it.]

A tone arm and cartridge in combination have a resonance frequency that is determined by the effective mass (weight) of the tone arm plus cartridge body and the compliance (springiness) of the stylus assembly. When a record warp excites this resonance, the arm-cartridge combination reacts in

much the same way as the weight-and-spring pair, bobbing up and down at the resonance frequency. The stylus interprets this bobbing as a powerful sub-bass signal which, though too low to be heard, can overload the amplifier and drive the speakers so hard that they exhibit substantial amounts of distortion. Even if these infrasonic signals are filtered out before they reach the power amplifier and speakers, the uncontrolled motion of the tone arm can contribute to mistracking and produce flutter effects in the reproduced sound—or, in extreme cases, bounce the stylus completely out of the groove.

The simplest solution to the problem of arm-cartridge resonance would be absolutely flat, warp-free records, but present technology is nowhere close to that goal. Rather, record-player designers must assume that most records will not be absolutely flat and devise solutions with that fact in mind. The solutions generally fall into two categories: tuning (shifting) the resonance frequency to minimize its effect and/or reducing its amplitude by damping.

Resonance tuning relies on the fact that if the arm-cartridge resonance can be made to occur in a certain range of frequencies—say, between 10 and 15 Hz—then the arm will be less susceptible to excitation by either record warps or the deep-bass passages of the music, since neither generally has any substantial amount of energy in the 10- to 15-Hz range. In most cases this means either using a cartridge with a stiffer stylus suspension or a tone arm with a lower effective mass. *Effective* mass actually depends less on the total physical weight of the tone arm than on how the mass is distributed along its length. Concentrations of mass near the pivot assembly contribute little to it, whereas mass near the head shell (or at the other extremity, near the counterweight) results in an arm with high effective mass.

Today's better arms reflect these facts; they are often sleek, stripped-down affairs without any unnecessary mass in the head-shell area. Engineers use aerospace materials (carbon fiber and exotic metal alloys) for head shells and arm shafts, or they rely on specially fabricated conventional materials. Some manufacturers move the head-shell mounting collar back to the pivot assembly. The other means of raising the resonance, a stiffer stylus assembly, may reduce the bass-region tracking ability of a cartridge or alter its frequency response. Some designers are achieving reasonable compromises between these conflicting demands, however, and the trend at present seems to be toward slightly *less* compliant cartridges.

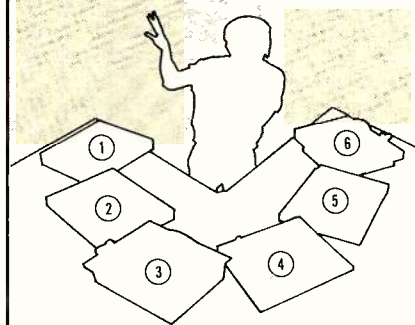
Damping, the alternative approach to the arm-cartridge resonance problem, can also be effective if the symptoms are not too severe. The procedure analogous to damping with our weight-and-spring example would be to immerse the entire affair in a bucket of water and thus slow its bobbing motion. With tone arms, this is done indirectly by packing the pivots with jelly-like substances, immersing paddles attached to the arm in reservoirs of viscous fluid, or attaching "shock-absorber" devices that ride over the surface of the record adjacent to the stylus. Another type of resonance-damping arrangement has the counterweight attached

to the arm by compliant mountings, creating a sort of "vibration parasite"—roughly tuned to the arm-cartridge resonance—that absorbs much of the energy that would otherwise cause the arm to bob. A recent turntable design enables the user to tune the anti-resonant counterweight to the tone-arm resonance precisely. These devices are helpful in stabilizing the arm and quashing any tendency for it to bob or bounce, but many of them still leave it up to the stylus to absorb any abrupt warps.

The fundamental job of the tone arm is to serve as a neutral support for the phono cartridge, maintaining the closest possible approximation to ideally "correct" record-playing geometry. An important consideration in this is keeping the stylus assembly in line with the direction of the groove. Since the groove is curved, this means that the stylus assembly should ideally form a perfect tangent to that curve throughout an entire record side (see Figure 4)—a difficult trick with a pivoted tone arm that sweeps out on a curve of its own in its transit across the record surface.

Early tone arms were simple straight bars, and the angular relationship between stylus and groove was consequently quite oblique through most of the record's playing time, resulting in substantial quantities of a characteristic type of distortion arising from "lateral-tracking-angle error." A study of the geometry of record-playing suggested a way to reduce this distortion: the offset-head configuration, an arrangement in which the cartridge is mounted at a specific angle (determined by arm length) relative to the arm shaft. If this and other aspects of the geometry are properly worked out, the stylus maintains a much more consistently tangential relationship to the groove, generally within a couple of degrees of perfect tangen-

THIS MONTH'S COVER



Richie Rivera, disc jockey at New York's SoHo discothèque Flamingo, grooves to the beat as he spins a few hot platters on (1) a Pioneer PL-610, (2) a Kenwood KD 550, (3) an Empire 698, (4) a Dual CS721, (5) a Technics SL 1500 Mk II, and (6) a Sansui SR-838. The disc with the eye-boggling spiral is Chic's "Le Freak."

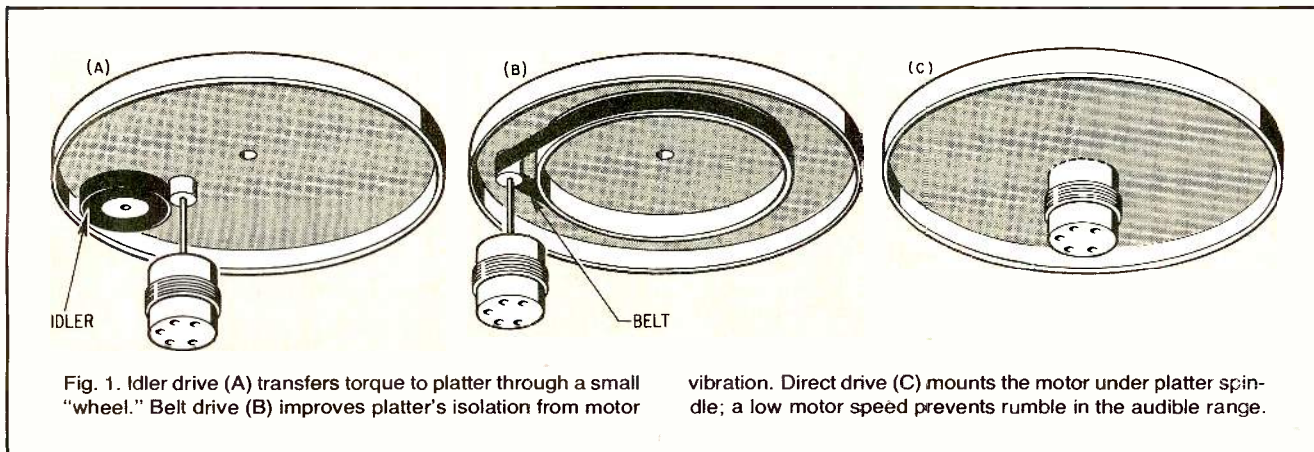


Fig. 1. Idler drive (A) transfers torque to platter through a small "wheel." Belt drive (B) improves platter's isolation from motor

vibration. Direct drive (C) mounts the motor under platter spindle; a low motor speed prevents rumble in the audible range.

cy at any point along the playing radius.

This offset causes the stylus to exert greater lateral pressure on the groove's inner wall than on the outer one. If uncorrected, this imbalance, called *skating force*, results in uneven stylus and record wear. A complementary opposing force (called *antiskating force* because it opposes the tendency of the arm to "skate" inward toward the platter spindle) is used to counteract this imbalance, and some means of applying it is incorporated in the majority of arms available today. There are several methods of applying antiskating force, such as a coiled spring, the repulsive force of two magnets, or a weight-and-pulley arrangement acting sideways on the arm shaft. These mechanisms are usually coupled to the arm near the pivot assembly, and all exert a more or less steady outward "pull" on the arm.

Another, more comprehensive response to these two problems—tracking error and skating force—has engendered a whole separate category of tone arm: the straight-line-tracking arm (also called the tangential, radial, or linear-tracking arm). This type of tone arm moves in a straight line across the record surface and maintains an almost perfect tangential relationship to the groove. By its very nature it requires no skating compensation. Most straight-line-tracking arms operate using servomechanisms that monitor the angular position of the arm shaft and maintain tangency by continuously "nudging" the entire arm assembly inward in tiny increments, although a number of variations on this scheme have also been marketed.

Of late, increasingly close attention has been given to the materials and structural configuration of tone arms. Theoretically,

neither the head shell nor the cartridge body should move independently of the arm while the stylus is playing the record. Rather, they should act as an infinitely rigid platform for the stylus as it reacts to the modulations of the groove. No substance, though, is *infinitely* rigid, and investigators have established that minor vibration and bending in the tone-arm shaft and head shell may in fact "color" the sound of a tone arm. Rigid head shells—constructed of cast aluminum, magnesium alloys, or synthetic materials—and integral felt or rubber cartridge dampers have become popular in higher-price turntables. Materials such as titanium, carbon-fiber composites, and fiber-reinforced stainless steel have become increasingly common in arm shafts. Some manufacturers prefer straight arm shafts, claiming they have the virtue of rigidity and resistance to

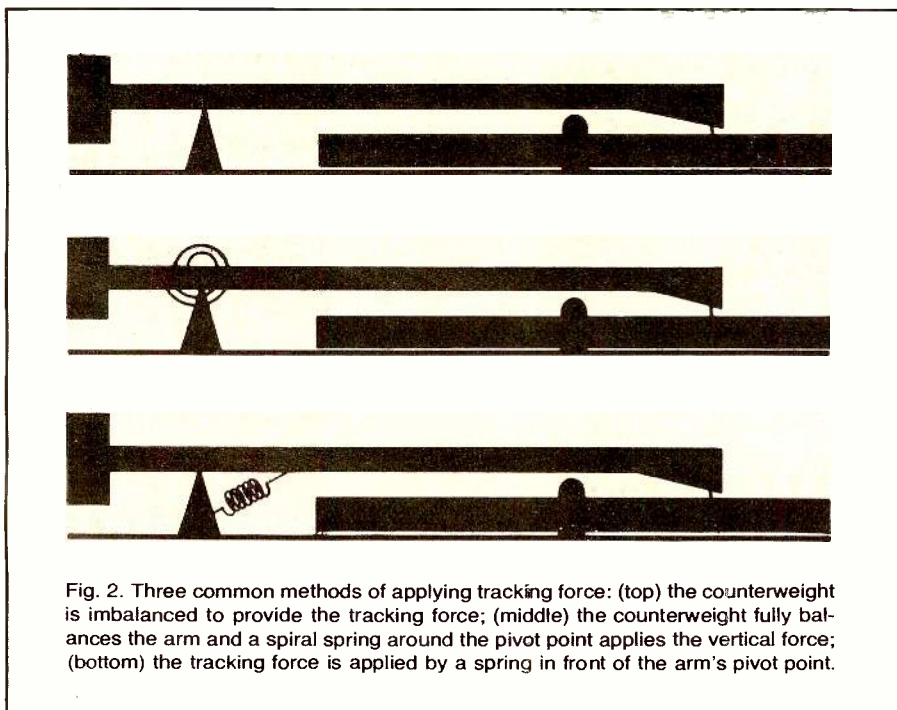


Fig. 2. Three common methods of applying tracking force: (top) the counterweight is imbalanced to provide the tracking force; (middle) the counterweight fully balances the arm and a spiral spring around the pivot point applies the vertical force; (bottom) the tracking force is applied by a spring in front of the arm's pivot point.

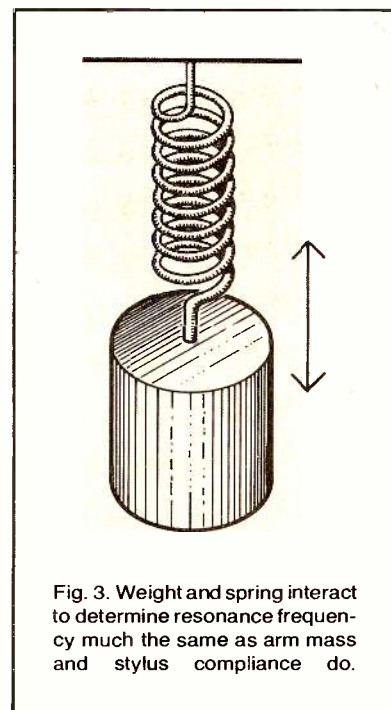


Fig. 3. Weight and spring interact to determine resonance frequency much the same as arm mass and stylus compliance do.

TURNTABLES ...

“... try to set aside any preconceptions you may have about one turntable type's having superior listening quality.”

flexure, while others stand by curved J- or S-shaped arms, noting that the bends in the shaft reduce some types of vibration. Relatively little evidence is available either in support of or in opposition to claims about the audibility of structural vibration in tone arms, although it seems clear that such effects are unlikely to have any major impact on the sound of a music system.

The Turntable Base

Constructing a proper turntable base would appear to be the simplest assignment among the three basic elements that go to make up a record player. For one thing, the base need not move at all; in fact, its primary responsibility is to *resist* motion, and in particular to resist imparting any motion or vibration to the tone arm or the platter/motor assembly. Two types of vibration can affect the audible performance of a turntable: structure-borne vibration, which is transmitted to the turntable base through floor, walls, and furniture, and air-borne or acoustical vibration, which travels through the air to act directly on the tone arm and/or the record. These types of vibration have, in turn, two sources: they may originate in the loudspeaker as it reproduces the music, or they may be the product of various and sundry jolts, shocks, slammed doors, footfalls, or even heavy outside traffic. In either case, the base design attempts to isolate the rec-

ord-playing elements from the vibration by making them part of a system whose resonance is low enough to “decouple” it from most of the impinging energy. This is the same principle as that in the weight-and-spring resonant system we discussed relative to tone arms. In this case, the weight is made up of the platter/motor system, the tone arm, and the plate on which they are mounted, while the spring is the turntable's *suspension*—a term for that part of the base that isolates the two other elements by suspending them in some resilient fashion from the remainder of the base. If the resonance has a low enough frequency and is suitably damped, it can be very effective in ignoring the existence of most outside disturbances.

The suspension may take the form of a number of coiled springs, rubber or foam blocks or straps, or even lunar-module-style compliant “feet” interposed between the record-playing elements and the base. (A variation on this arrangement is used on many direct-drive turntables: the entire turntable, including the record-playing components and the base, rests on compliant feet.)

One other characteristic of our weight-and-spring (or any other) resonant system becomes important here: the weight will not be substantially affected by any vibration or motion that occurs at a faster rate than the rate (the resonant frequency) at which the weight bobs up and down. This is easily seen if we imagine ourselves holding the upper end of the spring; a repeated rapid jerking on the spring will have much less effect on the bobbing motion of the weight than a single slow pull. And, since the rate at which the weight normally bobs is controlled by its mass and the looseness of the spring, we can see that a very loose spring and a very heavy weight will render the whole weight-and-spring system relatively immune to all but the slowest and most powerful of resonant influences.

The same principle applies to a turntable: a more massive base and/or a more compliant suspension will more effectively decouple the record-playing elements from most types of vibration because most vibration

occurs at a rate much higher than the rate (the resonance frequency) at which the turntable suspension normally moves. This fact is responsible for the recent popularization of turntables with massive bases constructed of concrete or heavy composite materials. It has also given rise to a new category of accessories: sub-bases and accessory suspension feet that improve the isolation of a turntable by replacing or supplementing its integral suspension with a second, extremely heavy and/or highly compliant one.

How to Buy

Armed with all this information on the internal workings of turntables, let us now confront the question of how to choose one. The first step should be to resolve what you want your turntable to *do* aside from rotating and playing the record. The simplest turntable type, the full manual, requires the user to perform all the operations related to its use: positioning and cueing the arm, turning the turntable motor on and off, and lifting the arm from the record at the end of each side. Semi-automatic units perform some of these operations for the user: they may lift the arm at the disc's end, shut the motor off, or both. Fully automatic units perform these functions and also place the arm on the disc, but they do not automatically play more than a single record in sequence. That requires a multiplay turntable, or changer.

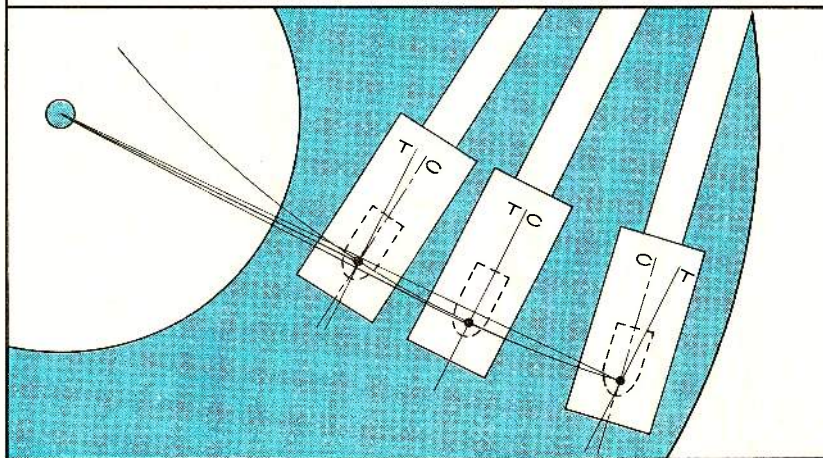
For the tape enthusiast, who uses a turntable only for transcribing discs to tape, a fully manual unit is adequate. Others interested primarily in a constant flow of background music obviously will benefit from a multiplay turntable. Most of us, however, fall into an intermediate category, normally using our turntables in the single-play mode but occasionally requiring some automatic functions for parties and the like. Mentally review your present listening habits to determine which type will be most suitable to your needs, basing your decision either on those operating capabilities you feel you “miss” (or never use) in your present system or (if you are buying a first system) those capabilities you believe will most closely correspond to your musical tastes and frequency of listening.

Try to set aside any preconceptions you may have about one turntable type's having superior listening quality. The performance of multiplay, automatic, and semiautomatic turntables has improved so in the past few years that any one of them is now very nearly the equal—when properly set up and equipped with an appropriate cartridge—of a fully manual unit. The very fine sonic distinctions that still do exist are likely to be audible only in systems approaching the state of the art.

As part of this first “qualifying” stage, be candid with yourself and make a mental note of any price-related, cosmetic, or dimensional requirements you may have. If the turntable must cost less than \$200, have a matte-black finish to match other components, or fit on a shelf of particular dimensions, include these criteria in your thinking at the outset. Also note any “whizbang”

(Continued on page 70)

Fig. 4. Tracking error occurs because pivoted arms move inward along an arc, thus preventing constant perpendicularity between the stylus axis and record groove.



TECHNICAL specifications, like foreign languages, can be difficult to understand without a bit of interpretation, so the following glossary of the most common turntable specifications includes information on how the more important measurements are made and how the resulting numbers can sometimes be used to compare turntable and tone-arm performance.

● **Arm Friction** describes the resistance of a tone arm to being moved either vertically or horizontally, primarily because of the inherent friction of the bearings in the arm's pivot assembly. A large amount of friction can have a significant effect on record and stylus wear. Pivot friction less than 10 per cent of the tracking force (for example, an arm-cartridge combination tracking at 1 gram having no more than 100 milligrams—0.1 gram—of friction in either the vertical or horizontal plane) was formerly thought to be acceptable, but some engineers in recent years have concluded that much smaller amounts of arm friction can, under certain circumstances, affect listening quality and record wear. Most high-performance turntables now have arm-friction specifications of 50 milligrams or less in both planes of motion.

● **Bearing Type** defines the mechanical characteristics of the bearings that permit the arm to pivot while tracking the record. There are many different types of bearings, all designed to reduce arm friction to a minimum yet be reasonably rugged. The tone-arm friction specification, rather than the bearing type, should be used to evaluate the efficacy of a given arm's bearing assembly, however, even though it tells you little about durability.

● **Cable Capacitance** is an electrical property of the cables connecting the turntable to the receiver or amplifier. Many phono cartridges are greatly affected by the electrical "load" presented by the preamplifier input and connecting cables, with the result that the midrange and high-frequency response of the cartridge may be altered. Proper match of the cartridge with the cables and the preamp input requires knowing what capacitance the cartridge requires and what capacitance the preamp and cables provide. The best starting point for adjusting these load conditions is to select a turntable having cables with relatively low capacitance—preferably under 100 picofarads. More capacitance, if needed, can be added with an accessory component or an additional length of cable. If you have selected a cartridge already and know what capacitance it requires (some are noncritical), then the two variables are the preamp and the cables. Many late-model components

GLOSSARY OF RECORD-PLAYER SPECIFICATIONS

have a switch-selected choice of input capacitance/resistance available. A knowledgeable dealer will be able to guide you through the fine points of cartridge/cable/preamp interfacing.

● **Effective Arm Mass** is the term for the portion of the arm's mass that affects the arm-cartridge resonance. A large part of this mass is contributed by the head shell (and the cartridge it holds), although the arm tube and counterweight contribute as well. For purposes of comparing specifications, it can be said that the lower of two effective arm masses is superior (for reasons explained in the text). Good contemporary turntables should have effective arm masses (excluding cartridge) no higher than 20 grams; state-of-the-art arms using exotic materials may have masses as low as 5 grams.

● **Maximum Tracking Error** defines the extent to which the tone arm causes the stylus to deviate from true tangency to the record groove. Measured in degrees per inch of record radius, it is determined by arm length and geometry as well as by the degree of precision of cartridge mounting and setup. Although whether moderate tracking-error distortion is audible is a controversial point, high-performance tone arms usually have maximum tracking errors no greater than 0.5 degree per inch.

● **Rumble** is the generic term for a variety of low-frequency noises generated in the turntable by the motor (or, occasionally, the platter's center bearing). Modern high-performance turntables rarely produce *audible* rumbling noises, but the infrasonic frequencies that are part of the rumble often have an indirect impact on the sound of a system in that they tax the signal-handling capabilities of both the amplifier and the speaker, driving one or both into distortion.

Turntable rumble is measured in a number of ways. "Weighted" rumble measurements, which discount infrasonic rumble frequencies, are less revealing of the performance limitations of a turntable than "unweighted" figures, which measure the level of both infrasonic and higher-frequency types of rumble. The various types of weighted measurements are customarily identified on specification sheets by abbreviations (DIN A, DIN B, ARLL, JIS, etc.) that indicate the organization that promulgated the meas-

urement method. Just remember that these methods differ, and the figures they produce can be used for purposes of comparison *only within the same measurement system*. Contemporary medium-price turntables should have DIN, ARLL, or JIS weighted rumble specifications of -50 dB or better (better meaning numerically larger: -50 is larger than -45) and unweighted figures of -30 dB or more. Rumble figures of -60 dB weighted and -40 dB unweighted are commonly found in state-of-the-art players.

● **Range of Speed Adjustment** describes the amount by which the rotational speed of the turntable platter (and therefore the pitch of the recorded music) can be slowed down or speeded up. Since the most common reason for a speed-adjustment control is to permit a recording to be matched in key signature or tempo to music being performed by the listener (or lately, in disco, to a second musical selection), the degree of adjustment required will be largely determined by individual needs. For those who don't anticipate any such musical or transcription activity, the presence or absence of this feature can be disregarded—unless you happen to have perfect pitch.

● **Stylus-to-pivot Distance** describes the effective length of the tone arm and is related to the minimum amount of tracking error an arm will have. Theoretically, a longer tone arm will have lower tracking error—but also higher effective mass. Most manufacturers have found that balancing these conflicting requirements to obtain a low-mass arm with low tracking error yields a stylus-to-pivot distance of 8½ to 9 inches (216 to 229 millimeters). Arms with less than about 8 inches (203 millimeters) of stylus-to-pivot distance will have higher tracking error unless they are straight-line-tracking types.

● **Wow and Flutter** are two names for cyclic variations in pitch, generally caused in turntables by small changes in the rotational speed of the turntable platter. Wow introduces a slow, recurrent slurring of musical and vocal phrases, while flutter adds a rapid wavering quality, not unlike a singer's vibrato, to instruments and voice. Like rumble, wow and flutter can be measured in several ways (denoted by the initials of the various standards organizations). Again, if specifications are to be compared, they must have been measured in the same way. Wow and flutter figures for high-performance turntables generally range no higher than 0.08 per cent (when measured using the common DIN measurement standard), but other measurement standards will yield smaller numbers.

TURNTABLES ...

“... rely as much on your own ‘hands-on’ evaluation of a turntable as you do on its specifications.”

sort of controls you would like, such as remote control or front-plate mounted switches, as well as any preferences related to the turntable's country of manufacture or the proximity of service facilities.

With these considerations noted and the field of possibilities that much diminished, make up a list of those turntables you know of that meet all your requirements, whether you've encountered them in test reports, annual buyer's guides, or in friends' systems. Follow this with a visit to a number of audio dealers, setting forth your requirements fully and firmly to the salespeople and noting what *their* recommendations are. From these sources, develop a second, combined list of a half-dozen or so units that meet your criteria in all respects.

THE second step in choosing a turntable involves a set of brief in-store experiments to be performed on each of the turntables you're considering. Each experiment should give you information on a specific part of a turntable's performance. If possible, try to complete these experiments on all of the turntables you're considering within a span of one or two days so that your recollection of the “feel” and sonic performance of each will be fresh in your mind.

1. To check the cueing and control smoothness, operate all the controls of the unit several times while a record is playing, checking to see if any extraordinary degree of loving tenderness is needed to keep the

arm from being jarred; a turntable that requires the delicate touch of a neurosurgeon to prevent the arm from skipping is obviously to be avoided. Cue the arm up and down several times with the amplifier's volume control set fairly high. Any loud crash (distinct from the music) as the stylus rises from or touches the surface of the record suggests that the cueing device might harm your record collection in extended use.

2. Take a strobe disc (available at most electronics hobby stores) with you to check the effects of putting an accessory record-cleaning arm, a second record, or some other additional element of weight or drag on the rotating platter. If any of these devices has the effect of altering the speed for more than a moment when put on the platter, and the turntable's vernier speed control can't compensate for it, you will not be able to use them on the turntable in question. (A turntable's built-in strobe will serve as well as a separate strobe disc.)

3. To evaluate the suspension characteristics of the turntable in the showroom, sharply rap the shelf surface on which the turntable rests while the unit is playing the silent lead-out end groove of a record. Don't rap *too* hard, and listen, with the amplifier volume set fairly high, for a corresponding thump from the loudspeakers. Repeat the rapping several times at different spots on the shelf, striking both the top and side of the shelf. If you are not sure that the thump you hear is in fact coming from the speakers, have a friend do the tapping while you listen directly in front of the speaker. Any reproduction of the thump suggests fairly serious shortcomings in the turntable's suspension and the distinct possibility that you will encounter acoustic-feedback problems in home use. Bear in mind, however, that an unusually rickety shelf (not completely unknown in audio shops) may invalidate the experiment because *it* will move or resonate when rapped, setting the whole turntable in motion. If several different brands all fail this test, then you are rapping too hard.

4. Both the rumble and the flutter performance of a turntable can be evaluated using a record designed for that purpose, such as STEREO REVIEW's SRT 14 test record, which comes with detailed instructions for use (available for \$7.98, plus applicable sales tax, from Test Record, Dept. 679, P.O. Box 278, Pratt Station, Brooklyn, N.Y. 11205). A rough evaluation of the rumble level of a turntable can also be made by playing the silent between-selection grooves of a normal record at high volume through a loudspeaker having extended bass response. An acoustic-suspension speaker (rather than a vented or passive-radiator design) is preferable for this experiment. A turntable with relatively high rumble will cause the woofer cones of the speakers to flutter wildly back and forth, whereas a unit with acceptable rumble should cause only barely detectable motion.

5. Cartridge selection is a topic complex enough to justify a whole separate discussion (the subject was last covered in the January 1977 issue of STEREO REVIEW) and is therefore beyond the scope of this article. However, when you have made a tentative cartridge selection (or accepted the recommendation of a dealer), it might be useful as a final check on arm-cartridge compatibility to perform one final experiment. The Shure TTR 115 test record (\$5.50 from a Shure dealer or from Shure Brothers, Inc., 222 Hartrey Avenue, Dept. 67, Evanston, Ill. 60204) contains a track that permits an observer to determine the arm/cartridge resonance of a turntable by watching the motion of the arm as this track is played; instructions enclosed with the record explain the procedure in greater detail. Note that a tone arm and cartridge with a combined resonance in the wrong range of values are not always hopelessly incompatible. A lighter head shell or the removal of extraneous mass in the head-shell region may solve moderate problems. In most cases, however, the solution will of necessity be either a cartridge having lower compliance or some type of add-on damping device.

The Bottom Line

Having downgraded or eliminated some of the turntables on your list as a result of these tests, compare their published specifications and note any substantial differences. In most cases, the degree of difference between two specifications will not be a vast one, nor is it likely that a unit with really poor specifications will have done well in the series of experiments you've performed. Differences of less than 5 dB in the rumble figure, 0.01 per cent in wow-and-flutter, or half an inch in arm length are unlikely to have any impact on the sound quality of one turntable relative to another, but a difference in, say, cueing smoothness will reveal itself every time you use the turntable. Remember also, relative to specifications, that the cutting lathes used to make records have definite, fairly well-defined limits of rumble, wow-and-flutter, and speed stability. Rumble figures better than about 45 dB unweighted and wow-and-flutter specifications in the 0.025 per cent range represent

about the best performance to be found in record-making machinery, so the benefits of a record-playing machine with far superior specifications are debatable. In cases where a number of turntables have done equivalently well in your handling and experiments, either superior specifications or a significant advantage in price can serve as a “tie-breaker” in helping you to make a final choice, but rely as much on your own “hands-on” evaluation of a turntable as you do on its specifications.

Certain other factors will (and should) influence a final choice: how much you trust your dealer and the package price of the turntable, cartridge, and any other components involved are two obvious points to take into account. When evaluating a package price, by the way, beware of a cartridge the dealer throws in either at no charge or for a nominal price. The cartridges supplied in such deals are usually budget units suitable enough for a turntable under \$150 or so;

but for a better turntable insist on a known (and higher-price) cartridge brand.

Using these criteria, it should be possible to choose a turntable—and to have confidence in the accuracy of your decision—without too much head- or heartache. One final caution is in order, though: try to avoid any extended quest for the Holy Grail, a fabled turntable in a given price range that will be Superior in Every Respect to its competition. By and large, such turntables do not exist (if they did, this job of discussing the buying process would be enormously simplified). Today's audio industry is global in scale and highly competitive in nature, and the best current technology is generally available to a large number of manufacturers simultaneously. Inevitably, several turntables in a given price range will provide equally good performance and value per dollar, and any one of them will be fully suitable for a given type of use. Good luck and good hunting. □



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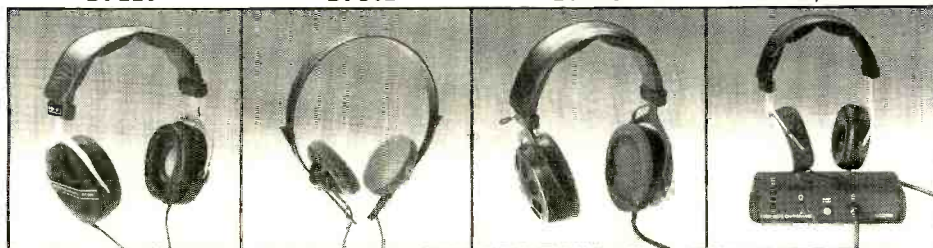
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The Passionate Collector

VICTOR M-235 is a 78-rpm album of J. S. Bach's Sonata No. 3, in E Major, for Violin and Keyboard that probably does not exist. That is to say, it was recorded by Adolph Busch and Rudolf Serkin and it was listed in a 1934 artists' catalog issued by Victor, but, as far as we know, no one has ever seen the records and the overwhelming probability is that the album was never released. Nevertheless, Thomas Clear is looking for it. In fact, it is number one on his wanted list. He has looked for it in Newark, New Jersey, and in Tokyo, Japan, and practically every place in between.

One day another collector, Gene Bruck, was driving through Kentucky when the highway traffic got so heavy he decided to turn off on a side road and stop at some nearby town until things eased up. Pulling into the center of a small town he had never seen or heard of before, he noticed an old Victor sign in the window of one of the stores. He got out of his car, went into the store, and began to poke around in some piles of old 78-rpm records. The clerk so persistently asked if he was looking for anything special that Bruck finally snapped that he was looking for Victor album M-235. "Oh," said the clerk, "You're a friend of Tom Clear's."

Why do people collect "rare" recordings? What sort of people are they? What are the pitfalls that lie in wait for prospective customers? When does accumulating albums stop being a

hobby and start turning into an obsession? Where do collectors go to get the stuff that crowds their shelves? And, above all, what kind of prices do they pay, what are all those rarities really worth on the collectors' market? I decided to look into the subject and soon found myself drifting through a strange twilight world and bumping into its elusive and sometimes legendary denizens. In fact, almost before I knew what I was doing, I became a collector of record collectors.

I FOUND out that, just as with acquirers of stamps or butterflies or rare coins, once the appetite to build a collection grows keen it can result in personal bankruptcy, a broken marriage, or a mental breakdown. The disease takes a number of forms. There are people who specialize in classical piano discs, old 78's of certain orchestra conductors, or poetry readings in Sanskrit. There are individuals who will assure you with a straight face (collectors, even collectors of comedy records, have some of the straightest faces in the world) that since, say, Siegmund von Hausegger died in Germany there has been nobody, but nobody, who could properly conduct a Bruckner symphony. There's a television producer in Greenwich Village (his name is Michael Levin) who owns 70,000 LP's, 5,000 cassettes, 2,000 ten-and-a-half-inch and 1,000 seven-inch reels of tape. There's a record-company executive in Manhattan whose apartment is so

crowded with records that he can't get through the room to his own record player to play one of them.

A friend of mine who deals in rare recordings and is also a recording engineer with a deep interest in the history of the industry believes that many people who collect records do so to reinforce their own identity. Sometimes it is a matter of nostalgia—buying up old 45-rpm singles, for example, because that is the musical material they were imprinted with when they were growing up. But he has also run across collectors with what he calls "Collyer Brothers mentalities." One man, for example, a former Victor Record Company employee, not only held onto copies of every Victor record he could lay his hands on, but also kept obscure company publications, such as a catalog of movie music suitable for playing with silent films, company letterheads, business papers, and other artifacts, until his home became a kind of duplicate of the old Victor headquarters in Camden, New Jersey.

My own experiences in this realm had long been confined to simple attempts to obtain certain out-of-print items I hankered after for the naïve purpose of playing them once in a while. This is chicken feed, however, compared to the expensive (in time and/or money) preoccupations and quests of *real* collectors—or to those of tracking the collectors themselves down. My attempts to connect up with the fabled Thomas Clear, for example,

Paul Kresh explores Discomania, that little-known area of human frailty lying somewhere beyond the (comparatively) well-traveled land of Discophilia



Lincoln Perry

Collector...

"On the rare-record market, at least, today's original-cast flop can turn into tomorrow's hit."

entailed such preparations as might have been worth a chapter in a book like *The Spy Who Came In from the Cold*. Mr. Clear was known to be a shy spirit who did not seek publicity. He had no telephone at home and was to be found, through the proper intermediary, only at a certain bar he frequented in midtown Manhattan at hours that could not be predicted with any certainty.

Finally, late one night, my messages drew a telephoned response from the gentleman in question, and one spring evening he arrived at my apartment in Greenwich Village wearing an oversize black raincoat and a somewhat battered hat and carrying a shopping bag containing, among other things, a limited-edition LP of the "Augmented History of the Violin on Records," Volumes Seven and Eight: the violin concertos of Wolf-Ferrari and Nussio played by Guila Bustabo. For Clear not only collects records but, in a quasi-amateur capacity, sells copies of certain items from his collection to favored purchasers. It was in his role as a collector, though, that I had been advised to see this man, who has the look of the seasoned seaman he is (he served for many years in the Navy and later the Merchant Marine). Grey-haired now and in his late fifties, Clear was born in Philadelphia and says he started getting interested in records when he was about four.

"My father had a small collection of old acoustic records by Caruso, Stokowski, and so forth. He used to play them for me and read stories from the *Victor Book of the Opera* and it sort of caught my interest. . . ."

A familiar pattern, I was to learn, in case histories of severe record-collection addiction. Clear was all right, though, until World War Two came along and he was serving as an officer on an aircraft carrier in the Pacific. During the invasion of Okinawa in 1945 he was hit in his right knee with a piece of shrapnel, which relegated him to the sick list for more than a month. And then it happened: "The ship's warden had a library of records which somebody had given them in San Francisco. One of the items in the library was Bruckner's Ninth with the Munich

Philharmonic under Siegmund von Hausegger. The work had such a spiritual effect on me that I actually think it helped my recovery."

Clear has traveled all over the world searching for additions to his library. In Tokyo he used to confer with the late Fukio Fujita, head of the Japanese Gramophone Society and one of the foremost collectors in Japan. (Clear and other collectors complain that with the yen worth so much these days the Japanese are cornering the entire rare-record market.) When he left the Navy as a regular line officer he joined the Merchant Marine. He would work in the engine room, patiently waiting for a port where he could forage in record stores for rarities.

Like many other collectors, Clear is a man of strong and unshakeable opinions. He despises most contemporary music and thinks stereophonic sound was a setback in the progress of musical reproduction. The word quadra-



phonic can send him reaching for his hat and his shopping bag. He thinks orchestra conductors have grown progressively worse, recorded performances sloppier through the years. He plays his own records on a time-honored turntable through a mono amplifier and one big speaker. He likes best to play his old 78's.

"When I have to get up every four minutes to change the side, then I feel I am participating. With an LP I can't concentrate on it as much. I begin to dream of other things and my mind wanders, and soon I'm *doing* other things—like writing letters. But I never read when I play records. It's either one or the other."

Teri Towe, a thirty-year-old collector who returned my next call, invited me to see his collection, admire the

sturdy metal shelves he keeps it on (there must be more than 10,000 discs), and talk about the subject. The son of Kenneth C. Towe, president of American Cyanamid, Towe grew up in Greenwich, Connecticut, studied art history at Princeton, where he won the Frederick Barnard White prize for the best thesis on the history of architecture, and is today a partner in the law firm of Barkhorn, Ganz, and Towe, where he deals in trusts and estates as well as in cases involving the entertainment industry. He also writes—liner notes for RCA and the Musical Heritage Society—and ghost-writes articles, including a recent one for a "girlie" magazine.

Towe started with children's records, but by the age of five he was already into the classics. He likes Baroque music best. "I've always had a passion for Bach, if you'll pardon the pun." The subject became something of an obsession in the days when he was going to prep school in Deerfield, Massachusetts. "The world is divided," Towe says he learned, "between those who collect and those who don't. I know a woman who collects friends. I collect music."

Towe, like Tom Clear, has never paid more than \$100 for a record. He doesn't see why he should go out "and spend \$75 for an original Caruso when I can get the complete Caruso on the Murray Hill reprint label for \$29.95." Towe is quick—as are most collectors—to dispel the popular myth about the alleged value of those old Caruso records in your grandmother's attic. The more copies of a record pressed, the less valuable it is likely to be; Caruso records particularly were turned out like pancakes.

From Mozart's *Jupiter Symphony* (Victor M30, with Albert Coates conducting) Towe's collection grew over the years to include Bach fugues, Scarlatti sonatas, organ recitals, violin recitals by Albert Spalding (he considers the violinist much underrated) and Yehudi Menuhin, and piano records by Alfred Cortot. Later he added records of music by Stravinsky, Roger Sessions, Ned Rorem—even Milton Babbitt. His opinions are strong: "I do not like Tchaikovsky, I think his music is *ghastly* . . . Toscanini was a great conductor. I just don't particularly care for the way he did things . . . the music *does not breathe* . . ."

One of the rarest items in Towe's collection is a private recording of the Schubert C Major String Quintet performed by Pablo Casals and the Budapest String Quartet. He saw it at David Rockefeller's one evening in 1960 when

he was at a party there and managed to acquire it. Cost: \$100.

So who is paying all the alleged high prices for rare recordings? A company in Lacey, Wales, called Ticket to Ryde, Ltd., which specializes in Beatles records (they stock 1,700 Beatles records from thirty countries), recently sold an extremely rare item for \$1,500, but the company has never gotten more on any individual sale. Some dealers, of course, operate on the whatever-the-traffic-will-bear principle, but it is only once in a long while that any record actually goes for over three figures.

What makes a record valuable? Rarity is a factor, of course, but rarity by itself isn't enough. There are certain records whose prices go up because at some point the bidding for them becomes strongly competitive. The price of one old 45-rpm single soared to \$3,800 when two rivals tried to outbid one another for it. Morbid curiosity makes certain issues "desirable" and expensive, as was the case with a vocal release featuring the voice of murderer Charles Manson. Original format counts: an early Victor show album with a green label will fetch more than a later release with a black label. The original RCA pressings of *Two's Company* was bringing in about \$75 up to the time it was reissued in Australia, but even after that the American original was still worth more than \$50 (the price went down again last year when RCA reissued the album here). But supply and demand is the main operating principle. A recording put on the market in small quantities in the first place will soar in price when and if it becomes an item sought out by collectors. On the rare-record market, at least, today's original-cast flop can turn into tomorrow's hit.

SAM HOLMAN is an accountant who collects show albums and spends as much of his time trying to keep his collection down to size as adding to it. He has about 1,200 records but no room in his apartment for more. He has eliminated all the bulky 78's from his shelves. He too doesn't believe in spending "huge sums" on his hobby. The most he ever paid was an average of \$25 each for three original-cast recordings—*Arms and the Girl*, *This Is the Army*, and *Texas L'il Darlin'*. And he is more interested in the contents of a record than in how it sounds. At the moment, he is trying to get hold of several old British show albums, including one called *Chrysanthemums*. His wife has no interest in his hobby, prefers the radio to records, and keeps pretty much out of this side of his life. Recently, when she was out of town, he

played through his entire collection of Ray Noble records of Thirties dance music.

Tom Morgan, who lives in a spacious townhouse on New York's Upper East Side, specializes in collecting the vocal classics. He is a stout, comfortable man and looks happy in his big living room surrounded by ceiling-high shelves containing his acquisitions. "Collectors," says Morgan, "are a rather nutty lot who just have a fanatical desire to get things that are hard to get." He admires those who go after what they enjoy hearing rather than after rarities. "So many of them squabble among themselves about the price of this or that and *bargain*—you give me two records for this and I'll give you three records for that." He suggested that if I wanted to find out more about how collectors bid for auctioned material I ought to go to one of the monthly meetings of the Vocal Record Collector's Society.



The following Friday I turned up at the next meeting of the society ("America's oldest and largest vocal classical record society," it says on their stationery) at Freedom House on West 40th Street in New York City. In a spacious, brightly lit, air-conditioned room that July evening, members were gathering for the program: an auction of items from the rare records accumulated by dealer/collector William Violi, followed by a concert of vintage vocal recordings he had brought.

The meeting was called to order by a man named Joe Pearce. Then Violi, grey-haired and pink-cheeked, started the auction going: "A very nice copy of the Victor catalog for 1929 . . . any bid for this 1929 Victor catalog, practically mint condition? One dollar . . . two dollars . . . two dollars once

. . . twice . . ." It was Teri Towe who walked off the with catalog for two dollars.

"Now we get to this ten-inch record. A 78. Dino Borgioli and Gino Vaneli . . . a pre-war English Columbia. . . One dollar . . . two dollars . . . three dollars . . . once, twice, thrice. . . A. Vesselowsky, tenor . . . beautiful Fonotopia Series repressing . . . excellent surfaces. . . Seventy-eight rendition of the *Night in Carnegie Hall* movie with Pinza, Stevens . . . any interest in this particular set? One dollar for three records? Two dollars? Three dollars? Ah! Thank you, Miss Green."

I LEFT the meeting with a list of hundreds of items available for auction to the members. Later I received a letter from Mr. Pearce stating that the realized bids on these records had brought in over \$1,000. "There's no end," he wrote, "to what a collector will pay to insure lifelong poverty." During that meeting, Teri Towe had introduced me to his friend Donald Hodgeman who was in from California and whom Towe characterized as "the greatest collector in the world," but Hodgeman didn't want to talk to anybody.

Such reticence is especially characteristic of collectors who work within the record industry. I spoke to several record-company executives, however, who did agree to talk about collecting if I would withhold their names. One of them told me he still has the first record he ever bought—a version of *The Blue Danube* with the Berlin State Opera Orchestra on Decca. He got that in 1949. Then his mother took him to a concert of the Philadelphia Orchestra with Stokowski. They played the prelude to the third act of *Lohengrin* and he thought it was so great he went out and bought that the next day. Today he owns some 20,000 records and nearly a thousand tapes.

He specializes in early orchestral material, but he goes after vocal records too when the singer is of particular interest to him. This collector has first-rate equipment and when he can, especially during vacations, will listen to records from morning to night. His fondest wish is to have "a complete run of all the Beecham records," but he has despaired of getting certain of the acoustic ones from the years 1911 to 1917. This fifty-one-year-old executive thinks most collectors are too quick to dismiss the technical advances of recent years. He prefers a good performance to a good recording in sonic terms, but "I certainly wish Caruso had recorded in quad." The most he ever paid for an item was \$750 for three

Collector...

"... one man wanted a recording of an opera he called 'Mr. Rosen and the Cavalier.'"

unissued Maggie Teyte recordings. The least was fifty cents for seven Beecham acoustic recordings. He got those at a tag sale near Pound Ridge, New York, which he had gone to, reluctantly, with his wife. On tapes he has never spent anything—just takes the stuff off the air.

One record-company executive who specializes in vintage jazz has six phonographs in his Long Island home and can never remember which ones he turned off before he went to bed. "I have a 78 room and an LP room. Last night I was listening to 78's in one room and then I turned the machine off and went to the living room and listened to some LP's there, and turned off half the machine. Then I had to go back to the 78's and turned the machine on, then turned off only half of that one. When I was upstairs and about to fall asleep I said to myself, 'I didn't turn the machine off,' and I was too tired to go back down, and so this morning the machine was still on. . . ."

This fellow does a lot of traveling. One time he bought a huge collection of jazz and blues 78's in London. His son, who is twenty, was with him, and together they tried to lug six boxes containing six hundred 78's past the airport gate to the plane. An airport worker stopped them: "You're not allowed to have more than one handbag per person, and it must be a certain size to fit under the seat. All these exceed the dimensions." The records would still be in London except that an airport supervisor intervened at that point and allowed father and son to board the craft with their boxes. There would have been trouble on the plane too, but the purser on the flight turned out to be a knowledgeable record collector himself and saw to it that everything was stowed safely. "He's probably the *only* purser flying on an international airline who collects 78's, and I had the luck to meet him on my flight."

Music Masters is a store where collectors can go not only to obtain unusual and rare recordings but to relax in a living-room atmosphere. On some mornings they even serve coffee to shoppers. The shop, in the West Forties in Manhattan, is presided over by Will Lerner, the owner, assisted by manager Steve Hockstein and two other employees. Lerner says he will get for a customer "anything that was on 78's or on LP" and put it on a cassette. He tells tales of collectors so furtive

and afraid of wifely criticism that, years ago, in the days of 78's, "there was one guy who used to have us deliver stuff to him on his roof. He would wait for his wife to go out shopping and then bring the records down. It seemed to the wife that their shelves were bulging more all the time, but she never did see her husband walking into the place with an album."

ONE of Lerner's customers was nicknamed "What's New" because he'd always be poking his head in the door to ask what had turned up since his last visit. "Now he's moved to California, but he calls me and asks me over long distance, 'What's new?'" Customers at Music Masters include such celebrities as Peter Ustinov, Lee Strasberg, and Joanne Woodward. The store will go to considerable lengths to keep the good will of its regular patrons. One of them was looking for "rehearsal recordings" with Toscanini. Lerner simply picked up the phone and called Munich to locate some for him.

"I love some of the people who come in here," Lerner says, "a lot of them progeny of that lady in *The School for Scandal*. Recently one man wanted a recording of an opera he called 'Mr. Rosen and the Cavalier.' Couldn't find it anywhere! Another wanted to get hold of the 'Symphony on a French Mountain Horn.' He's probably still trying." □

ADVICE FOR PROSPECTIVE COLLECTORS



- *Don't* let collecting records become addictive, or a substitute for all other interests. • *Don't* let the fever to fill up your shelves spoil your marriage, alienate your friends, or make you reluctant to part with money that should be spent on other things.
- *Don't* allow your job to become merely a means to fuel your collecting habit. • *Don't* let your collection become a mere shrine, a stack of shellac and vinyl objects to be counted, catalogued, and admired but never enjoyed as music. • *Don't*, in short, let collecting recordings become the only reason for your existence. Let it enrich your life, not run it. • *Don't* spend beyond your means.

- *Do* build a "skeletal" foundation for your collection first, centering around some area of particular interest to you. • *Do* learn as much as you can about what is available. • *Do* go to dealers rather than waste time at secondhand stores. • *Do* examine each item of merchandise carefully. • *Do* talk to other collectors

whenever you can; get to know them by joining the various societies to which they belong. And *never* try to collect absolutely everything, even in your chosen category; you never will. • *Do* know what your financial limitations are.

WHO gets taken, and who does the taking, if any, in all this? As in any other field, it's a matter of *caveat emptor*. New collectors are advised first to get hold of *The Record Collectors Price Guide* (\$7.95; 2218 E. Magnolia, Phoenix, Ariz. 85034). It's regarded as the Authorized Bible of record prices, the latest edition listing more than 28,000 titles. And STEREO REVIEW is making available a list of publications, clubs, and record dealers both for those interested in launching themselves as collectors and for those who merely think they have found a treasure in the attic. Simply write for *Collector's Guide*, STEREO REVIEW, 1 Park Avenue, New York, N.Y. 10016, enclosing a stamped, self-addressed envelope.

Cleaning your records is only half the battle.

What do you suppose happens when the hardest substance found in nature—diamond—is dragged through the soft, intricate vinyl canyons of a phonograph record at a force which produces acceleration that exceeds 1000 G's!

Friction and wear.

From the very first time you play a record, a process of decay takes place. The delicate high frequency sounds are the first to be impaired. Then the midrange. With every play details are lost and noise becomes more pronounced, eventually rising to a hailstorm often punctuated sharply by clicks and pops. And

the better your equipment, the more annoying the disturbance.

Regular cleaning of your records is important and necessary—to remove the dust and oily films that can further mar performance—but it's simply not enough. The best way to preserve the music on your records is Sound Guard® Record Preservative.

Sound Guard is a revolutionary dry lubricant that virtually eliminates record wear. It's so thin that it will not affect the sound of a new record. It's so effective that a treated record may be played 100 times with no audible degradation of per-

formance or increase in surface noise.* A built-in anti-static property helps keep dust off your records between cleanings.

It's true that it requires a little extra effort and expense to protect your records with Sound Guard. But when you add up the investment you've made in your stereo system and record collection, you really can't afford not to do it.

Sound Guard. Everything else is a lot of noise.



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*We have the test results to prove it—write us and we'll send them to you.

KEEPING IT CLEAN: RECORD HYGIENE

The incredible power of the scanning electron microscope provides some fascinating verifications – and contradictions – of conventional record-playing theory

By George Alexandrovich

The contact area of a typical stylus is no larger than a single lens of a butterfly's eye (though somewhat larger than its whiskers, right). All photos courtesy Stanton Magnetics.

It may come as a surprise to most people to learn that we really don't know much about phonograph records. Yes, we can manufacture them rather easily (though with varying degrees of quality), but we still lack data on exactly how they work, how we can best keep them clean and noise-free, and what can be expected of the average disc in terms of damage resistance and useful life. Part of the difficulty lies in determining precisely what is on a record to begin with. Playing it provides only tentative answers because record-playing systems are themselves imperfect. On the other hand, the fine details of a record groove are exceedingly small and an informative view of the groove requires a depth of field, degree of magnification, and resolution conventional optical microscopes can't provide.

The scanning electron microscope (SEM) is an instrument that makes it possible to photograph record grooves

for study. It yields startling resolution at enormous magnifications, but it is expensive and its use is time-consuming. A good day's work with it might result in the examination of only a quarter of a second of recorded information. Fortunately, there are investigators who are not deterred by this, among them the indefatigable George Alexandrovich of Stanton Magnetics, some of whose remarkable SEM photos (and interpretations thereof) appear in the following pages. Although much of what he has to say is surprising and even controversial, Mr. Alexandrovich assures us that it is not his intention to upset any applecarts. Rather, he has merely proceeded from the evidence before him to a series of educated guesses. There will almost certainly be those who will dispute his conclusions, but we think you'll agree that the evidence itself is certainly worth looking at.

—Ralph Hodges

We all tend to acquire bad habits in caring for our audio equipment—especially our records. We leave them on the turntable to gather dust, or we reinsert them in their jackets carelessly. We scratch them in handling or in playing, we neglect to clean them properly (or at all), and we stack them, even in their jackets, in ways that produce warps. Such bad habits can be changed, but there are other factors related to sound-reproduction quality that are either beyond our control or that we don't understand well enough to do anything about. The record material itself, stylus wear, groove wear, and the use of

cleaning and lubricating devices all affect not only sound quality but record life. Given so many possible influences, it is little wonder that few people are willing to state with assurance which causes of wear are most pernicious and which cleaning techniques are effective, which useless or worse.

At Stanton Magnetics, we are fortunate in having a uniquely useful piece of equipment, the scanning electron microscope. It enables us to look into the record groove, see things not many researchers have been able to see before, and subsequently correlate the results of this visual analysis with measurements on phono cartridges and rec-

ords. The SEM is capable of magnifying an object 160,000 times (for comparison, a magnification of only 10,000 times would produce an image at least fifty times larger than that seen with a good-quality optical microscope).

Using the SEM, we can easily demonstrate the effect of tone-arm skating force, for example. In Figure 1, note that the inner wall of a repeatedly played record groove is worn more than the outer one, definite indication of the kind of stylus-force imbalance that proper antiskating force could have corrected. Note further, in Figure 2, that the stylus that played this groove suffered wear on the left side as well, a predictable result of this kind of imbalance. Through close-up viewing and through measuring the area of contact between stylus and groove, we can calculate precisely the pressures involved. Earlier theoretical assumptions based on purely electrical measurements could not reveal the whole story, nor could they satisfactorily explain why records *sounded* the way they did.

To understand what happens when a record is played, imagine that you have shrunk to 1/100,000 of your normal size and find yourself standing at the bottom of a V-shaped phonograph groove looking along a slow curve whose tortuous contours are ever-varying in width, depth, and shape. The feeling would likely be akin to that experienced at the bottom of a canyon created by a prehistoric river. If you start moving along the bottom of this canyon-like groove, the first thing you encounter are large "boulders," dirt washed down from the walls by liquid cleaners and never completely removed afterward (see Figure 3). When the cleaning liquid evaporated, its surface tension brought particles of dust

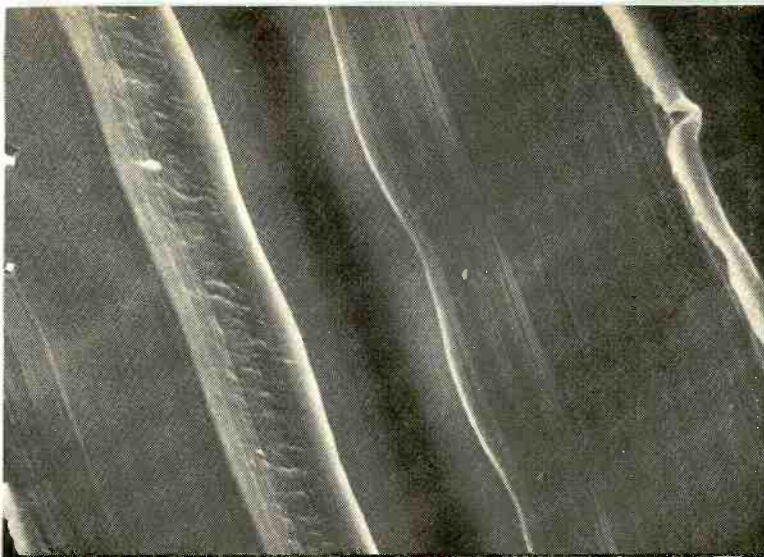


Fig. 1. Record groove played fifty times at 2 grams with no antiskating (magnification 1,500 \times).

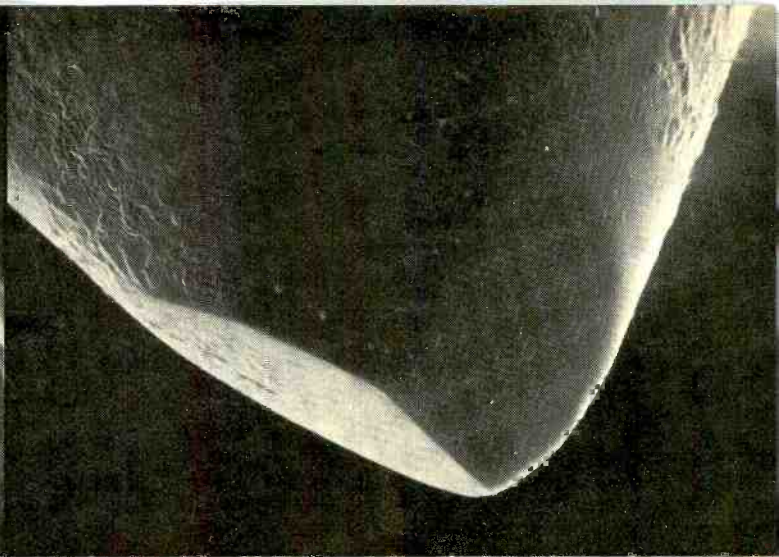


Fig. 2. Used stylus shows uneven wear owing to uncompensated skating force (2,000 \times).

together to form these agglomerations.

Look further down the groove and try to visualize a stylus traveling through it at the speed of 40 miles per second (144,000 miles per hour!) in a wild, careering race as it tries to maintain its contact with the groove walls through all the jarring twists and turns. If you look at the walls of the groove, you will find distinctly visible tracks about one third of the way up from the groove bottom. These are the marks of the stylus' previous passage. They do not reach entirely to the groove bottom because the stylus is designed to ride higher up in the groove, as shown in Figure 4, where it will not have to plow its way through the boulders. Although it doesn't look like it, the groove walls are being compressed by stylus pressures as high as 30,000 pounds per square inch.

Further along, you suddenly come upon a vertical crevice in the groove wall (see Figure 5—the white deposits are dry lubricant material that became trapped in the wall crevice). When the original master disc for the record was cut, the audio signal at this point caused the cutting stylus to execute a turn so tight that it ripped a gouge in the lacquer material. This came about because the overzealous cutting engineer, in trying to record as loud a signal as possible, exceeded the capabilities of the medium. The defect was replicated throughout the subsequent record-producing process, and here it is (almost) perfectly preserved in the final pressing. What will happen when the stylus tries to play this part of the groove? The result will probably be distortion, since the groove detail is far more tortuous than could be traced by even the thinnest-edge stylus.

The sides of the diamond stylus tip

should be smooth and rounded where they touch the groove walls, as illustrated in Figures 4 and 6. A stylus, when it becomes worn, develops *flat* spots instead of rounded contours where it touches the groove walls. It may seem logical to expect that the "curved" modulation of the groove would gently round a stylus, but instead the modulation acts pretty much like a straight file, polishing the sides flat (see Figure 2 again). Moreover, the edge of the flat gets sharper and sharper as wear increases, and at some point a badly worn stylus starts shaving vinyl off the groove walls. As can be seen under the scanning electron microscope, dust is attracted to the record, mixes with these vinyl shavings as well as deposits from oily fingers, liquid cleaners, and antistatic fluids, and ends up looking like slush in the thaw after a winter snow storm.

Disc Hygiene

What can be done about cleaning up this slush, which obviously contributes nothing positive to the playback qualities of the disc? Choosing between the many record-care products on the market is difficult. A few of them are good, most of them do the job only partially, and a good many of them are useless or worse. Take, for instance, the mechanical devices designed to clean records by picking up dust on the tacky surface of a roller (Figure 7). Although they are fine for cleaning the flat elevations between the grooves and for picking up the larger pieces of dirt from the grooves themselves, no matter how much pressure you apply, they cannot fully penetrate the groove.

The only way we have found to make a record groove at least *appear* clinical-

ly clean is to "launder" it in an ultrasonic bath. Special record brushes have to be used to remove the most stubborn particles. Brushes using nylon fibers with tapered ends seem to work best for us. Figure 8 shows another type of bristle that can be effective.

The question of record-cleaning substances is a sticky one (sometimes literally). I tend to be cautious about applying *anything* to my discs until I have at least some evidence that no harm will result. A simple test I use is to thoroughly clean a small area of a mirror with a tissue, and then apply the substance. If, after drying, it leaves any residue on the glass—perhaps in the form of a milky film or a tacky coating—I tend to be wary of it until I'm convinced it is totally safe. Of course, even a cleaning solution that passes this test is not necessarily free of possible *chemical* interactions with the record material; it may remove plasticizers, lubricants, and other beneficial additives from it.

Having done my best to establish that the product does no harm, I then start experimenting with it (on expendable discs) to see if it does any *good*. Quite often only *some* of the several claims made for a cleaner hold true, and I have to decide if I would be better off using ordinary water with a few drops of liquid detergent (still the best method I know of for cleaning old discs). I have used many dishwashing and household detergents, and all seem safe—as long as the records are rinsed completely. (The effect of this method on the record label, however, can be less benign.)

However concerned I may be about getting a disc clean and noise-free, I am *more* concerned about avoiding physical damage to its grooves. I don't, for

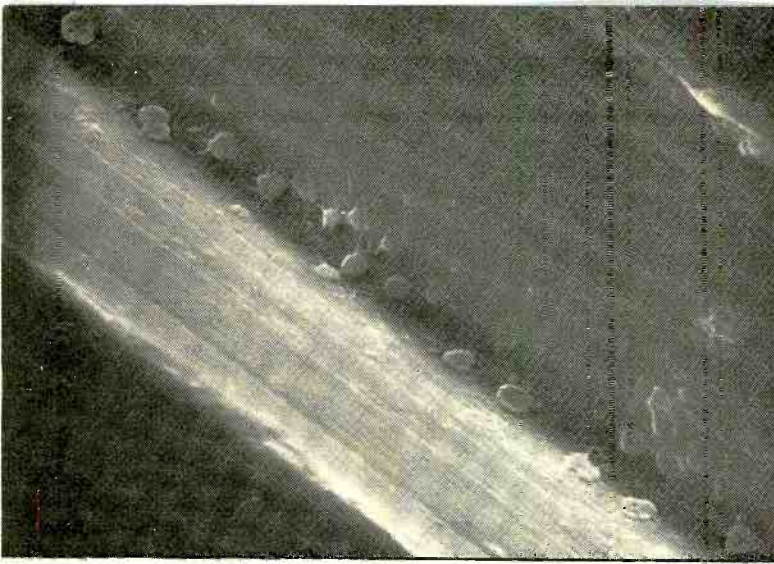


Fig. 3. Evaporating moisture pulls dust together to form blobs at groove bottom (1,000×).

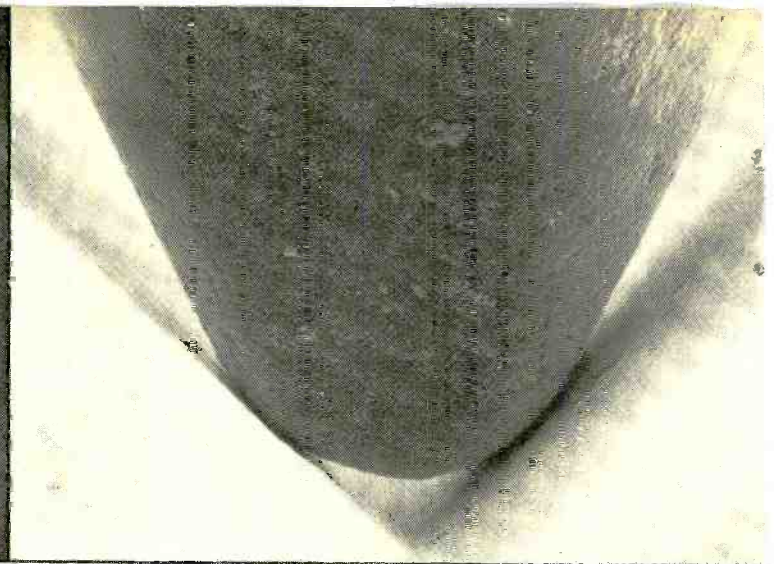


Fig. 4. Spherical stylus resting in record groove in playing position (10,000×).

example, play a record wet, as is recommended with at least one European record-cleaning system. In studying some SEM photos of records played wet, I have noticed unusual forms of wear on the surface of the groove walls (Figure 9). I suspect that, when a record is played normally (dry, that is), a microscopically thin—perhaps a couple of molecules thick—layer of vinyl *melts* because of the tremendous pressure (as high as 15 tons per square inch) the stylus exerts on the groove walls and because of the speed with which the stylus moves through the groove. This is analogous to the case with ice skating, in which one really skates not on ice but on a thin film of water which turns back into ice as soon as the blade passes over it. In the case of the phonograph disc, if liquid is present in the groove the vinyl does not melt (it takes almost 500° F to melt it) and the increased friction causes scouring as the stylus is dragged through the groove.

Presence of liquid in a groove may give the false impression that just because it is quieting some surface noise it is actually *cleaning* the groove. This is *partly* true, because the liquid dissolves many soluble dirt particles and keeps them in suspension during the playing of the record—until the liquid evaporates and the dirt cakes up on the groove bottom again (see Figure 9 again). On the other hand, I believe that the liquid overdamps the stylus, thus preventing it from following the groove undulations freely (try swishing the tip of a fishing rod rapidly through the water for some idea of how this might take place).

PLAYING records dry, however, presents us with another problem: the electrostatic attraction to the record surface of dust floating in the air. Quite a bit has been written about the harmful effects of electrostatic charges on disc playback. I consider the attraction

of dust to the surface of a record *the* most harmful effect, one that calls for the very best we can do with cleaning devices and de-staticizers. An electrostatic charge all by itself is not harmful, especially in the case of cartridges with truly grounded stylus assemblies that provide a direct path to earth ground through the system wiring. In cartridges with ungrounded styli, static charges accumulate on the tip of the cantilever and attract a good deal of dust which may interfere with tracking, especially at high frequencies. It is possible for this charge on the cantilever to arc over inside the cartridge to one of the grounded metal parts, thus creating a “snap” sound through the speakers.

Electrostatic charges have several sources. The first is friction of the record surface against molecules of air as the record rotates on an insulating mat. Another source is the friction of the record surface against the jacket or inner sleeve as it is being pulled out.

Fig. 7. “Sticky-roller” cleaner does not reach deep enough to clean groove bottoms (1,000×).



Fig. 8. Fibers of velvet record cleaner as they sweep the record grooves (1,000×).

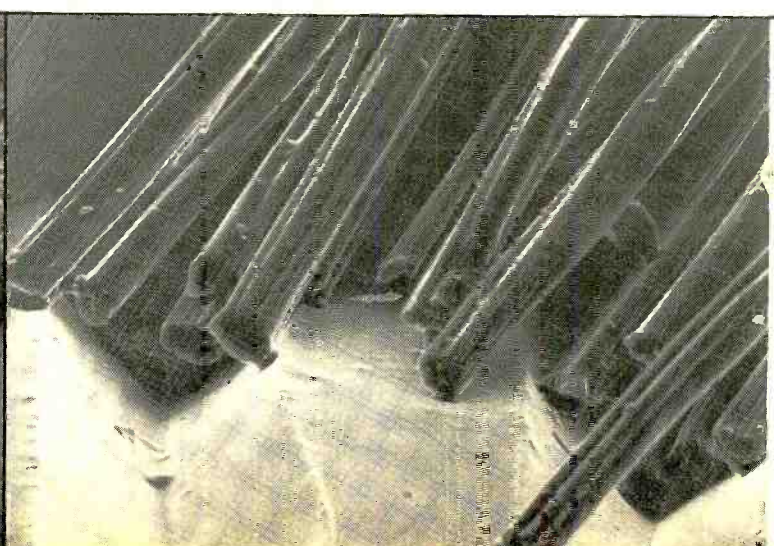




Fig. 5. Dry lubricants are trapped under the crest of an unplayable signal transient (10,000 \times).

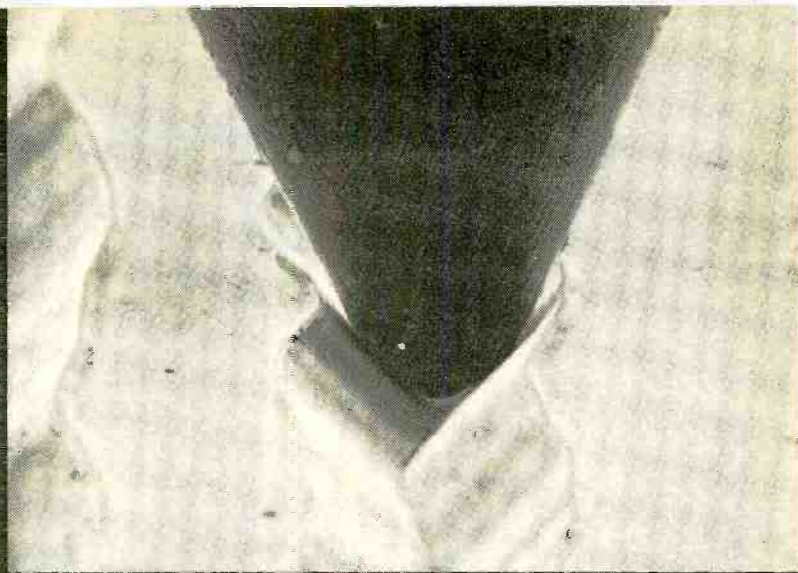


Fig. 6. Stereohedron stylus hugging the groove. Note groove "horns" typical of cheap records (1,000 \times).

Record Wear

Of continuing concern to audiophiles is the oft-heard admonition never to play a record—or a part of one—two or more times in succession. The theory is that the vinyl (which is inevitably deformed to some degree by the stylus pressure) requires a "rest period" to recover from the trauma of play. It is supposed that without such a rest period, permanent injury is added to the temporary insult. To check this, I took a walk downstairs to our quality-control station, where new cartridges coming off the production line get their final checkout on a test disc. Cartridges are tested at a rate exceeding one hundred per hour, and a lot of records are used up in the process. I took a test record that had just been discarded after being played one hundred times in succession and compared it to a brand-new copy. Except for a slight rolloff at high frequencies and a barely noticeable degra-

duction of channel separation, the record was still okay. Under the SEM (Figure 10), the groove-wear patterns appeared absolutely identical to those found on records receiving normal use.

Not long ago we were life-testing an automatic-turntable shutoff mechanism. The tone arm was set to play the last band of the record, lift, then return to the beginning of the last band and play it again, and again, etc. The turntable went through 80,000 cycles of this to prove the reliability of the tone-arm lift mechanism—and then we suddenly realized that we had just played part of a record 80,000 times in succession! We rushed to listen to it and, to our amazement, it actually sounded better than some of our less-played records.

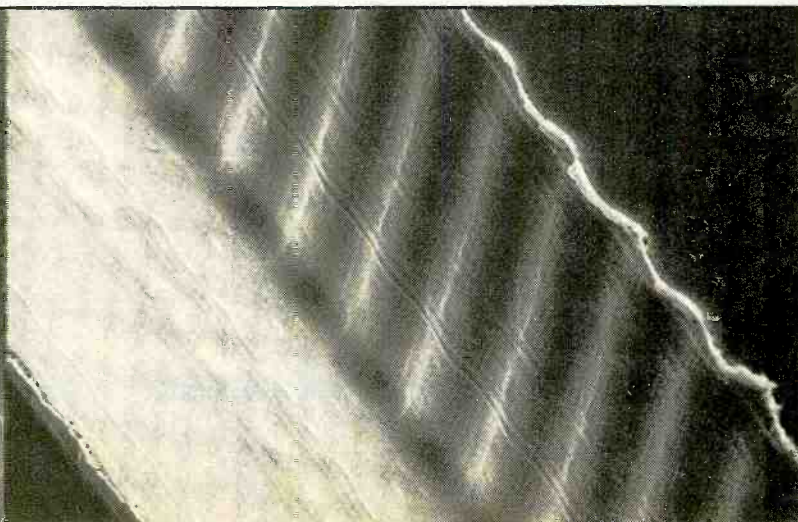
Looking at the groove under the SEM, we could see that the stylus had produced a "footprint" on the groove walls that conformed to the shape of the stylus tip, and it seemed that once a certain amount of wear had occurred,

no further damage to the groove took place. I estimate that the entire test was also equivalent to approximately 1,000 hours of playing time for the stylus, but there was hardly any wear visible on it although the tracking force was 1.5 grams. Note that there were no special precautions taken in running this test and no use of cleaning agents or groove lubricants. My conclusions from all this are that, with today's phono cartridges, record wear and sound quality are the same whether you play the disc repeatedly at one time or wait days between playings. Apparently, if you exercise reasonable care in regard to storage and hygiene, and if you are using a well-designed stylus assembly whose diamond tip is in good shape, your discs are not likely to be damaged by the playing process. Phonograph records, contrary to our fears, are unusually tough and durable; in general, they are the most "forgiving" sound-storage medium we know of. □

Fig. 9. Damaged groove surfaces and piled-up dirt globules in a wet-played groove (10,000 \times).



Fig. 10. Test record played one hundred times. Note 20 kHz modulation on right wall, none on left (10,000 \times).



STEREO REVIEW'S SELECTION OF RECORDINGS OF SPECIAL MERIT BEST OF THE MONTH



Barrios: A Brilliant Composer Rediscovered

Up until a few weeks ago, if anybody had asked me about Paraguayan music I would have rattled off a few top-of-the-head comments about the Trio los Paraguayos and what they owe to the Trio los Panchos, a short (very short) disquisition on Los Chiriguanos and what they owe to the Spanish colonial tradition, and concluded with a little rhapsody on that grandly compelling folk instrument known as the Guarani harp. All that has suddenly and irrevocably changed, however, with the release of a new Columbia recording by guitarist John Williams devoted to the music of Agustín Pío Barrios. From now on anyone who says "music" and "Paraguay" to me in the same breath is going to get "Barrios" right back.

Barrios was born in San Juan Bautista on May 20, 1885, and learned to play the guitar at an early age. He graduated from the Colegio Nacional with distinction in mathematics, philosophy, and literature, and beginning in 1910 he concertized extensively in Latin America. From 1934 to 1936 he toured in Europe, playing in Spain, Germany (on radio!), and Belgium, where critics compared him to Segovia as an interpreter, to Chopin as a composer, and to Paganini as a virtuoso.

Proud of his part-Indian ancestry, he adopted midway in his career the name Mitsuga Mangoré, the Mitsuga part being an inversion of his first name, Agustín, the Mangoré part the name of a legendary chief of the Timbúe tribe at the time of the Spanish conquest.* He was something of an eccentric, appearing in concert at times dressed in native costume ("half nude, with feathers"—cf. Los Indios Tabajaras), but he was also an extraordinarily accomplished musician. He spent the last five years of his life as professor of guitar at the Conservatorio Nacional de Música

in San Salvador, where he died in 1944 of a heart ailment.

Astonishingly, his name is not to be found in any standard musical reference, including the fearfully comprehensive *Music of Latin America* by Ni-



El Salvador Cultural Administration

colas Slonimsky. (The liner notes provide a sketchy biography, and a more detailed one was kindly supplied by the Cultural Affairs department of the Organization of American States—in

*Mangoré fell in love with Lucia Miranda, wife of one of the conquistadores, and was killed trying to abduct her. This was accomplished instead by his brother Siripo. Lucia's husband pursued, but was captured by the Timbúe. His life was spared when he agreed to marry an Indian woman and leave Lucia to Siripo. Husband and wife were later discovered together; she was burned alive, he (his name, naturally, was Sebastian) was shot with arrows. There is more than a bit of the fanciful in all this, but it provides something of a clue to Barrios' own romantic tendencies, which are easily traceable in his music.

Música y Músicos del Paraguay, by Dr. Juan Max Boettner). This neglect may be owing to the scholarly world's snobbish reluctance (up until recently, at least) to recognize the existence of the phonograph record. Barrios was apparently careless about manuscripts—in some cases there may not even have been any—but he did begin to record as early as 1909, reputedly the first classical guitarist to do so. A small underground of enthusiasts has for some time been busy gathering together a body of works that may number in the hundreds, many of them painstakingly transcribed from the only source available—old phonograph records. Williams' album is the most recent recorded result of all this labor (there is an earlier album containing three Barrios pieces on Nonesuch 71349), and he has clearly been inspired. A superb musician and what I would call a "responsible" performer, he has usually fallen short, for me, of that carefree, chance-taking rapture the guitar ought to release in its finest exponents. No chilly reserve here, however: he plays with such virtuosic abandon that he might well have written the pieces himself.

But what about the music? You are probably going to have some little difficulty, as I did, understanding how music of such quality can have been effectively hidden from the world for so long. Barrios knew the classics (a typical program, presented in Mexico, included Fernando Sor's variations on a theme from Mozart's *Magic Flute* as well as works of Beethoven, Chopin, and Albéniz) and knew what to do with such influences in his own works. *La Catedral*, the first piece on this new recording, demonstrates that he knew his Bach too, but not in any sense of mere imitation. In everything he did—and he did everything from the classic forms



Guitarist John Williams
(CBS photo by Sophie Baker, London)

to folk influences to popular song—there is an immediately recognizable, individual voice, inventive in its melodies, daring in its harmonies (some of them, indeed, verge on orchestration). The whole is filled with a canny, often playful, and even theatrical dramatic sense. In short, a COMPOSER.

I have not finished discovering new wonders in this sampling of Barrios' music, so I cannot yet point to any "favorites." This is a composer who re-pays not only listening but study; I fervently recommend that you do both. I also recommend that the Paraguayan government establish at once a Concurso Barrios to encourage other guitarists to play this music. With so many more works still to be recorded, Williams is going to need some help—Christopher Parkening, Angel Romero, and others take note. I look forward to the time when the Barrios entry will have expanded to as much as a half-page in Schwann, and I would like to find listed there soon an LP transfer (perhaps digitally cleaned up) of some of Barrios' own recordings. When you dream, dream big. —William Anderson

BARRIOS: John Williams Plays Music of Agustín Barrios Mangoré. John Williams (guitar). *La Catedral; Madrigal (Gavota); Minuet; Mazurka Appassionata; Estudio; Preludio; Sueño en la Floresta; Valse No. 3; Cueca; Aire de Zamba; Aconquija/Maxixa; Una Limosna el Amor de Dios; Choro de Saudade; Villancico de Navidad.* COLUMBIA M 35145 \$7.98, © MT 35145 \$7.98.

Grainger Plays Grieg: Fabulous Old-fashioned Piano Playing in Modern Stereo Sound

IF you want to experience yesteryear's grand romantic style of piano playing coupled with excellent orchestral execution, the whole in up-to-date stereo sound (I can't think of any reason why you wouldn't), you will simply have to get hold of RCA's new 1978 recording of the Grieg piano concerto with Percy Grainger as the soloist and the Sydney (Australia) Symphony Orchestra under John Hopkins. Grainger in 1978? But he died in 1961 at seventy-nine! What's more, he never made a commercial recording of the Grieg piano concerto, least of all with an orchestra from his

native Australia, right? Yes—and no. He never made one while he was alive, but he surely made one after he was dead, and this is it, stereophonic sound and all.

Yes, it's the piano roll again. Grainger made the rolls for the Duo-Art company and they were issued in 1921, incorporating a Grainger-edited piano version of the orchestral accompaniment to make the whole comprehensi-



Pvt. Percy Grainger of the U.S. Fifteenth Coast Artillery Band (1917)

ble as a solo performance. Ah, the wonder of piano rolls! Fifty-seven years after the fact you can go back and edit out the now-unwanted "orchestral" material. Two gentlemen named Denis Condon and Peter Philips did just that and built a new *Vorsetzer* mechanism (with eighty "fingers" and two "feet") to play the resulting solo roll (role?). John Hopkins and the orchestra studied it, rehearsed with it, and produced the most estimable of orchestral accompaniments to go with it. Perhaps never has a piano soloist received an accompaniment more precisely tailored to his express musical wishes than Grainger has here. (Sometimes it pays to be dead.)

Just in case you are unfamiliar with

the specifically *musical* background of all this, Percy Grainger was a *sensational* pianist and virtually the "official" interpreter of his friend Edvard Grieg's piano concerto. Listening to this recording, it is not hard to see why. He is all over the keyboard. Bravura is there in abundance. So is ravishing lyricism, and, from pianissimo to fortissimo, the tone—the sound that comes not from the way a note is struck, but from the way all the notes are connected—is just extraordinarily beautiful. The performance is idiosyncratic, no doubt, the more so in that it was conceived as a solo rendition, not as one with orchestra, and there are phrasings that no one but Grainger would have dared use. But oh, what style, what musicianship, what communication! The Sydney Symphony Orchestra (I have never had the pleasure of hearing them before) is no mean ensemble either, and Hopkins does an absolutely remarkable job of integrating the orchestral parts with the rubato-laden solo. Grainger desperately wanted to have his interpretation of the Grieg concerto realized on discs; perhaps this will give his shade peace.

There are other, noncommercial recordings of him in the work, three of them (two complete and one of the first-movement cadenza alone) available on a disc issued by the International Piano Archives (IPA 508) which you can get in exchange for a \$15 contribution to the Archives (P.O. Box 303, Ivor, Virginia 23866). The 1945 recording with Stokowski shows Grainger rather ill at ease and Stokowski anxious to get through the thing as quickly as possible, but a 1956 performance with the (I'm not kidding) Southeast Iowa Symphony orchestra is perhaps even more astonishing pianistically (Grainger was seventy-four and played like he was twenty-five) than the present disc, though the piece is beyond the orchestra's abilities. The RCA amalgam offers the best of the matter, though; you simply can't hear this kind of playing in this contemporary sound elsewhere.

As if the Grieg were not enough, RCA has given us on the second side the recordings made of Grainger's own music by Stokowski (Grainger as soloist in *Handel in the Strand*) and his orchestra, originally released in the early Fifties and long, long out of print. They are little treasures of light music, and I can think of no LP side I would rather have seen reissued. The recording, which is mono in this case, is perfectly acceptable. —James Goodfriend

GRIEG: Piano Concerto in A Minor, Op. 16. Percy Grainger (piano roll); Sydney Symphony Orchestra, John Hopkins cond.

GRAINGER: *Handel in the Strand; Irish Tune from County Derry; Country Gardens; Shepherd's Hey; Mock Morris; Molly on the Shore; Early One Morning.* Percy Grainger (piano); symphony orchestra, Leopold Stokowski cond. RCA ARL1-3059 \$7.98.

Jimmie Mack: Life Can Be A Little Lonely On the Corner

JIMMIE MACK is a veteran of various bar ensembles and a semi-successful recording and touring group, the Earl Slick Band. With that kind of background one wouldn't expect more from him than the usual rock howling and foaming—but stand back. Mack is special, and his second solo album more than fulfills the promise of his first, "Jimmie Mack" (Big Tree 76007), released last year. It's been a long time since I've heard such good pop/rock writing (Mack's own) propelled by vocals that are husky, subtle, and absolutely convincing. I must also commend the production by Elliot Scheiner, the string arrangements by Walter Raim, and the horn charts by Rob Mounsey. Together, these men have made a superb album.

Many of Mack's songs are about loneliness, but they differ from most songs of that genre and the way they are usually performed: there's not a trace of self-pity or hambone dramatics, either in the material or in the singing. With Mack, loneliness is a real condition, not just an excuse for a song. As with a broken arm, one deals with loneliness and lives with it until it heals; it is painful and even embarrassing, but it is not fatal.

I recommend the whole album because it is a complete, rounded artistic statement, but I must also cite a few outstanding performances: *Ain't Gonna Make It*, a cool recollection of a drunken night; *I'd Rather Be the One*, in which a man decides to put up with a woman's sometime love rather than have no love at all; and *On the Ice*, which takes on the question of identity and comes to the realization that it's going to take some time before the question gets answered.

Mack is successful as an artist because he doesn't strive self-consciously to be one. His vocals and the arrangements and production surround-

ing them are straight-ahead, no-nonsense pop, easily worth more than the last fifty albums by fifty sniveling superstars caroling of defeat in the back seat of a Rolls. With common sense and courage, Mack takes responsibility for himself, and that is most refreshing in these days of whining bathos.

—Joel Vance

JIMMIE MACK: *On the Corner.* Jimmie Mack (vocals, guitar); vocal and instrumental accompaniment. *Ain't Gonna Make It; On the Corner; I'd Rather Be the One; On the Ice; Give It Away; Lover; Pushin' Me; I Want the Night to Go On; Subway.* BIG TREE BT 76014 \$7.98, © TP 76014 \$7.98, © CS 76014 \$7.98.

Abravanel Leads Fine Performances of Two Appealing Works By Darius Milhaud

DARIUS MILHAUD's *Protée Suite*, known to many of us only from the Monteux recording we have for years been after RCA to reissue, is one of the most substantial and appealing of the composer's early works for orchestra. It was produced in 1919, when he was twenty-seven—the same year as the more familiar (and slighter) *Le Boeuf sur le Toit* and some four years before *La Création du Monde*. (The subtitle *Suite Symphonique No. 2*, by the way, does not identify the score as the second of two suites from *Protée*, but simply as the second work in Milhaud's cycle of symphonic suites, the only one he drew from his music for Claudel's play of that name.)

More puzzling than RCA's reluctance to recirculate a recording that, after all, originated on 78's is the neglect the suite has suffered in general. I have never encountered it on a concert program, and it is only now that its *second* recording makes its appearance. The handsome performance by Maurice Abravanel and the Utah Symphony Orchestra for Angel is even more welcome than the long-sought reissue might have been, and the coupling is a delightful surprise. Side two is something that might be regarded as a phonographic première, for the half-hour ballet suite *Les Songes* has been represented on discs heretofore only by the fragments recorded by Milhaud himself on two ten-inch Columbia 78's shortly

after this work's Paris premiere in 1933, and by Gold and Fizzdale's recording (a ten-inch Columbia LP) of the brief three-movement adaptation for two pianos.

Les Songes, in which Abravanel conducts the Utah Chamber Orchestra (the "core," one assumes, of the Utah Symphony), is of lighter texture, more intimately scored, and a bit less adventurous than the lustily extrovert *Protée*,



JIMMIE MACK: not a trace of self-pity or hambone dramatics

but again highly attractive in its melodic abundance, rhythmic contrasts, and intriguing colors. For most listeners, both works are likely to be "discoveries," and both are very happy ones indeed, especially as presented on this beautifully recorded disc. (There is some pre-echo on side two, but perhaps not enough to give concern.) There is probably no conductor alive who brings more authority and affection to the music of Milhaud than Maurice Abravanel, and by now we can stop remarking on the fine job he has done with the orchestra entrusted to him thirty-three years ago and simply accept the fact of the Utah Symphony's high level of competence in the broad repertoire chosen for recording.

(Continued overleaf)

Neither of these points, it seems to me, has previously been made quite so impressively as both are here. Whether this package was Abravanel's idea or that of producer George Sponhaltz, it was an inspired one, and both are to be congratulated for bringing it off so brilliantly. James Ringo must be commended, too, for his comprehensive notes on the background and content of the two unfamiliar works, just the sort of documentation so distinguished a release calls for. —Richard Freed

MILHAUD: *Protée, Suite Symphonique No. 2.* Utah Symphony Orchestra, Maurice Abravanel cond. ***Les Songes.*** Utah Chamber Orchestra, Abravanel cond. ANGEL S-37317 \$7.98, © 4XS-37317 \$7.98.



MAURICE ABRAVANEL: no better conductor for Milhaud

Utah Symphony

Herbie Mann: Disco So Good You Can Sit Down to It

SALES meetings at the major record companies must be rather fun these days, with vice presidents and producers trying to read sales reports and decide the fate of America's music by the reflected light of those slowly turning mirrored globes while secretaries hustle about in disco pants and Lucite shoes, the hush broken only by the creak of leather as the "gofer" returns with a pastrami on rye and an ounce of Colombian. More fun, surely, than it is around the turntable, where the average record buyer waits, breath bated, for the latest bad news from the nation's studios.

Purists and/or Puritans weep with moral outrage as one recording star after another is "forced to go disco" simply to get space on his company's release schedule, but it's not *all* downhill. Listen, for instance, to Herbie Mann's new "Super Mann," just out on Atlantic, and see how well art and commerce can get along—if the artist concerned stands tall enough. It's a disco album, that's for sure, but it's also most definitely a Herbie Mann album, which means musical excellence of the first order.

This isn't Mann's first venture into disco, though; his single *Hi-Jack* topped the charts a couple of years ago, and his work since has retained a strong disco flavor. Wisely, producer Patrick Adams (the producer today is

the key figure in any disco album, just as he was in the Hollywood film system of the Thirties and Forties) has tailored the music so that the disco sound is made to fit the Mann talents rather than the other way around. Since Adams wrote and arranged several of the tracks here (the best probably being the cool and elegant *Django*), he's kept firmly in mind that Herbie Mann is a jazz-flute virtuoso and doesn't seem to care in the least when the beat becomes subsidiary, as it often does, to Mann's sensational playing. The playful, relaxed, and sophisticated tone of the whole album is probably best summed up by the *Jisco Dazz* number, another Adams creation, in which Mann, the other musicians, and the singers seem to be having a wonderful time just playing, without engaging in any kind of no-holds-barred contest to out-freak each other.

"Super Mann" is one of the few disco albums I've ever been able to sit all the way through without getting bored. How good it is to dance to—well, that's

a question I'll sadly have to leave to others since neither the postman nor the Avon lady was in the mood. Shed no tears for Herbie Mann, however; he's doing his usual, excellent, own thing even in the midst of discomania. With even Vladimir Horowitz being seen hanging out at Studio 54 these days (a fact that must send cold shivers down the spine of Arthur Rubinstein), it seems impossible to predict where this madness will end. I, for one, don't much care—as long as it produces albums of the quality of "Super Mann."

—Peter Reilly

HERBIE MANN: *Super Mann.* Herbie Mann (flutes); Patrick Adams, Nate Adderly Jr., Thom Bridwell, Leroy Burgess, John Cooksey (keyboards); Clarence Burke, Stan Lucas, Ken Mazur (guitars); Norbert Sloley (Fender bass); Richard Taninbaum (drums); Eddie Colon, John Cooksey, Michael Lewis (percussion); vocal chorus. *Superman; Etagui; Jisco Dazz; Rock Freak; Stomp Your Feet; Body Oil; Django.* ATLANTIC SD 19221 \$7.98. © TP 19221 \$7.98, © CS 19221 \$7.98.

HERBIE MANN: demonstrating how art and commerce can get along



Atlantic Records

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Briefly, this Telarc recording uses Dr. Thomas Stockham's Soundstream digital recording system which converts the original electronic signal from the recording console into a series of digital numbers... a new number every 1/50,000 of a second! Each of these "samples" uses a 16-bit binary code to describe the signal more precisely than



you can hear it. These numbers are stored on tape, with quartz-locked accuracy, then recalled later without loss to make the master disc recording.

While digital techniques lower distortion, increase signal-to-noise ratio, and eliminate speed problems which limit most recording quality, it is just the first step to an outstanding disc. Half-speed mastering and the finest of European pressing also contribute to the high standards this disc achieves.

This impressive technology does more than simply reveal the impressive performance of Robert Shaw and the Atlanta Symphony Orchestra and Chorus. Uninhibited by artificial

restrictions of dynamics, the interpretation of the Firebird Suite is memorable. Borodin's Prince Igor is no less spirited.

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POPULAR DISCS AND TAPES

Reviewed by CHRIS ALBERTSON • EDWARD BUXBAUM • NOEL COPPAGE • PHYL GARLAND
PAUL KRESH • PETER REILLY • STEVE SIMELS • JOEL VANCE

RECORDING OF SPECIAL MERIT

AMAZING RHYTHM ACES. Amazing Rhythm Aces (vocals and instrumentals); Tracy Nelson, Lisa Gilkyson, Joan Baez (vocals). *Love and Happiness*; *Lipstick Traces (On a Cigarette)*; *Homestead in My Heart*; *Say You Lied*; *The Lonely One*; and four others. ABC AA-1123 \$7.98, © AA-1123 \$7.95, © AA-1123 \$7.95.

Performance: **Excellent**
Recording: **Excellent**

The Amazing Rhythm Aces, a crack outfit from the Muscle Shoals Studios in Alabama, seem to have succeeded in doing what Area Code 615 from Nashville and the Atlanta Rhythm Section couldn't: they've made the transition from studio back-up musicians to headliners. Area Code 615 was loaded with talent, but they couldn't find a lead vocalist and played in too many styles all at once; the Atlanta guys just play too cautiously. The Aces don't rely on a single vocalist, instead having several members of the group—on this disc Russell Smith, Butch McDade, and Duncan Cameron—sing together, and they're more concerned with a Southern sound than with whether the music is rock or pop or country. Maybe 615 played a little *too* Southern and Atlanta plays a trifle Northern, but the Aces strike a happy medium.

The Aces call on their personnel to provide

original material, and the outside songs—Al Green's *Love and Happiness*, Roy Clark's *If You Gotta Make a Fool of Somebody*, and *Lipstick Traces (On a Cigarette)*, which is credited to "Naomi Neville" but was in fact written by Allen Toussaint in 1962—are excellent choices. Their debut album is delightful all the way through, with Duncan Cameron's *Homestead in My Heart* and Russell Smith's *Say You Lied* also among the highlights. Smith wrote the closing cut, *Rodrigo, Rita and Elaine*, which for anticlimax rivals the ridiculous and surreal *Desert Blues* recorded by Jimmie Rodgers in the 1920's. I don't know who's kidding whom on *Rodrigo*, but the way it sounds I'm willing to be kidded. J.V.

ANGEL: *Sinful*. Angel (vocals and instrumentals). *Don't Take Your Love*; *L.A. Lady*; *You Can't Buy Love*; *Bad Time*; and six others. CASABLANCA NBLP 7127 \$8.98, © NBL8 7127 \$8.98, © NBL5 7127 \$8.98.

Performance: **Metal bubble gum**
Recording: **Likewise**

Angel is a unisex-and-Moog teenybopper organization, extremely loud with extremely amateurish lyrics. The thing the boys do best is grow hair, and the thing they give second highest priority, obviously, is wearing clothes. Somewhere fairly far down the list is making music, at which they are strictly run-of-the-mill conventional hard rock with practically nothing to distinguish them from your Sammy Hagars and your other latter-day Led Zeppelin imitators . . . except, as I say, their lyrics are a little dumber than average. Yech. N.C.

BADFINGER: *Airwaves*. Joey Molland, Tom Evans (vocals); instrumental accompaniment. *Look Out California*; *Love Is Gonna Come At Last*; *Lost Inside Your Love*; *The Winner*; *Sail Away*; and three others. ELEKTRA 6E-175 \$7.98, © ET8-175 \$7.98, © TC5-175 \$7.98.

Performance: **Good, but . . .**
Recording: **Good**

Two of the original members of Badfinger—Joey Molland and Tom Evans—are here

backed by studio musicians on what is less a comeback album than an attempt to capitalize on whatever value is left in the Badfinger name. The original Badfinger had such an arresting sound that for a time it was thought they might possibly be the new Beatles, not imitators but successors. They recorded for Apple and were produced by Mal Evans, once the Beatles' road manager; their debut single was *Come and Get It*, written by McCartney, but soon they were writing hits of their own, such as *No Matter What*, *Baby Blue*, and *Day After Day*. The collapse of Apple and the lawsuits and squabbles between the former Beatles and their managers hurt Badfinger a lot, and when Pete Ham died (he had been responsible for their material and sound) this very promising group disintegrated. "Airwaves" has some good material—Molland's *Love Is Gonna Come At Last* and Joe Tansin's *Sympathy*—and some good performances, but I think the name "Badfinger" ought to be permanently retired. While this is not entirely a case of false advertising, it is hardly in the best of taste. J.V.

BARCLAY JAMES HARVEST: *XII*. Barclay James Harvest (vocals and instrumentals). *In Search of England*; *Loving Is Easy*; *Berlin*; *A Tale of Two Sixties*; *The Closed Shop*; *Sip of Wine*; and five others. POLYDOR PD-1-6173 \$7.98, © 8T-1-6173 \$7.98, © CT-1-6173 \$7.98.

Performance: **Neo-Moodies**
Recording: **Very good**

This is a British rock group with an electronic-keyboard sweep behind it, and, as such things go, I really have only one complaint: the lyrics are stupid. Not as stupid as the lyrics of many of our American rock groups, mind you, but stupid enough. Being ambitious doesn't help them, either; the thing is divided up into Fantasy (*Loving Is Easy*), Classics, Fact, etc., and only the comment on labor (*The Closed Shop*) seems to know what the hell it's talking about. *The Streets of San Francisco*, an "evocation" of a female killer prowling Golden Gate Park, is a cut or two below Harry Chapin at this sort of thing, if you

Explanation of symbols:

- Ⓜ = reel-to-reel stereo tape
- Ⓢ = eight-track stereo cartridge
- ⓐ = stereo cassette
- Ⓛ = quadraphonic disc
- Ⓣ = digital-master recording
- Ⓛ = direct-to-disc recording

Monophonic recordings are indicated by the symbol Ⓜ

The first listing is the one reviewed; other formats, if available, follow it.

can imagine that, and *A Tale of Two Sixties*, which turns on name dropping, is even worse. Singing and playing, though, the group is okay. N.C.

SHANNON BOLIN AND MILTON KAYE: *To Alec Wilder and the World*. Shannon Bolin (vocals); Milton Kaye (piano). *Songs for Patricia; Four Children's Songs; The Plowman; Pied Beauty; The Rose on the Wind; Margaret; While We're Young*; and five others. GOLDEN CREST RE-7079 \$7.98.

Performance: **Careful and well-meant**
Recording: **Good**

This is a reverent homage to the work of Alec Wilder, probably best known to the general public as the composer of the wistfully lovely *While We're Young*. Wilder obviously goes to the best when he chooses his texts, since the settings here are of poems and occasional pieces by the likes of Carl Sandburg, Gerard Manley Hopkins, and James Thurber. But the hushed awe of Shannon Bolin's careful, well-meant vocals and Milton Kaye's almost sepulchral chording leads to an atmosphere so maternal and sacerdotal at the same time that I begin to have itchy, vague recollections of years-ago suffering at an Elisabeth Schwarzkopf concert when she was apparently determined to sing, in sequence, everything Hugo Wolf had ever written—including his letters to his publisher. Long before this recital (and this album is most definitely a Recital) tiptoed to its close, I yearned for some more active sport—such as bird-watching, or perhaps a snappy game of chess. Alec Wilder deserves less worshipful treatment than this. P.R.

RECORDING OF SPECIAL MERIT

CAMEL: *Breathless*. Camel (vocals and instrumentals). *Breathless; Echoes; Wing and a Prayer; Down on the Farm; Starlight Ride*; and four others. ARISTA AB 4206 \$7.98, © AT8 4206 \$7.98, © ATC 4206 \$7.98.

Performance: **Excellent**
Recording: **Very good**

Camel is a versatile British group that's been around for a while with shifting personnel. They have an eclectic style—mixing elements of rock, light classical, jazz, folk, operetta, even some disco—that is impressive and most enjoyable. I especially like the baroque arrangement on *Starlight Ride* and the very funny *Down on the Farm*, which has a melody line reminiscent of a Gilbert and Sullivan patter song and a vocal reminiscent of Noel Coward. *Breathless* and *Wing and a Prayer* are both fine examples of the best sort of British pop: straightforward vocals and careful orchestration applied to well-crafted songs that are designed to charm. They do. J.V.

KIM CARNES: *St. Vincent's Court*. Kim Carnes (vocals); instrumental accompaniment. *Jamaica Sunday Morning; Paris Without You; Lose in Love; Goodnight Moon; It Hurts So Bad*; and six others. EMI/AMERICA SW-17004 \$7.98.

Performance: **Imitative**
Recording: **Good**

I doubt that Kim Carnes could get any closer to being Carly Simon without being married to James Taylor. Not only does she sound remarkably like Simon, but her songs reflect the same sensibility—you know, the smart girl

trapped by her own cleverness but ready for lowdown love as soon as she can sublet the Paris apartment and put the finishing touches on her doctoral thesis. Carnes does enough groaning and panting in *It Hurts So Much* to convince you that it really just might. In *Take Me Home to Where My Heart Is* and *Goodnight Moon*, she seems quite at ease with the fine gothic-romance touch that Simon mas-

tered long ago. We're going to need a new label to fit the swarm of young women who have come to our attention on recordings in the past few years. How about Aspiring Lady Novelists on Records? Insulting, perhaps, but right now I can't think of anything else that fits quite as well. P.R.

(Continued overleaf)



The Eclectic Tin Huey

WELL, forget all the hype about Akron's being the new Liverpool. Devo, the Rubber City's most famous native android sons, have already revealed themselves as not much more than Kiss for college kids, and the adorable Rachel Sweet, although a lot of fun in person, is basically just a younger version of the early Tanya Tucker. Hardly a Renaissance. Tin Huey, on the other hand, although unlikely to alter the face of Western Culture, are considerably more substantial musical ambassadors than their better-known co-conspirators. In fact, they're about the most accessible non-mainstream rock band I've heard in a long time, combining a pop approach with occasionally topical lyrics and a musical style that manages to make more than a token nod toward the more outré of the British avant-gardists. They do the Monkees' *I'm a Believer* here, for example, but in a somewhat spacy version swiped from ex-Soft Machine drummer Robert Wyatt, pretty good indication of their collective intelligence.

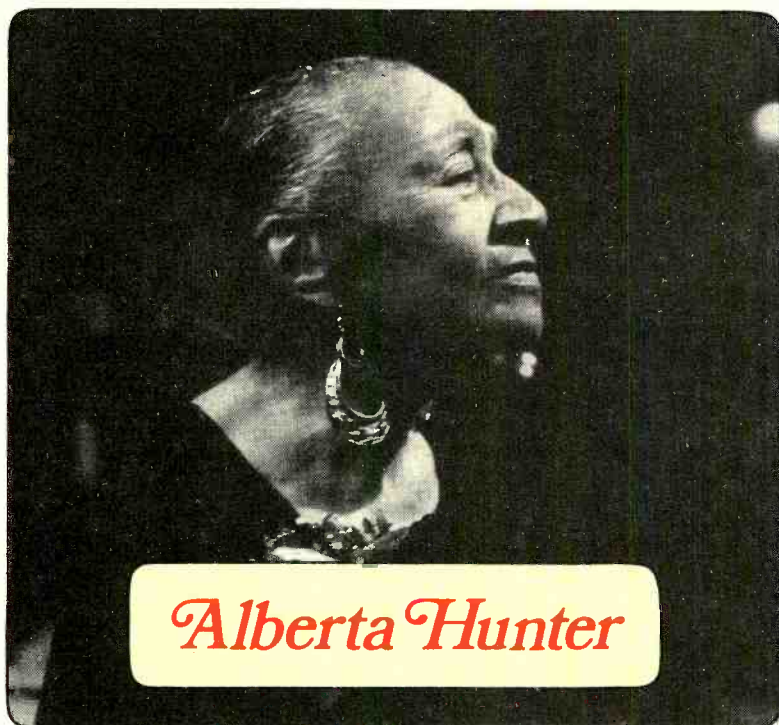
Their own *Hump Day* illustrates their wacky eclecticism particularly well: it starts and finishes as a sort of mutated Chicago blues tricked up with electronic sound effects and a brief instrumental bridge that flirts with free jazz, all the while taking an effective

swipe at the blue-collar, assembly-line mentality of their home town. Yet the whole thing still comes off sounding like a Top-10 single because of its oddly martial (though ironic) exhortations to "keep your mind on your work." There's some discrete synthesizer in the background, plus some very good sax stuff and a lot of rhythmic transitions that shouldn't work but somehow do, but for all the slightly modernistic decorative overlays, the sound is still pop. Which only proves, I guess, that Devo was right about at least one thing: today's noise is tomorrow's hootenany.

I've never really liked a band this self-consciously intellectual before, but these guys have charmed me. Highly recommended.

—Steve Simels

TIN HUEY: *Contents Dislodged During Shipping*. Tin Huey (vocals and instrumentals); other musicians. *I'm a Believer; The Revelations of Dr. Modesto; I Could Rule the World If I Could Only Get the Parts; Coronation; Slide; Hump Day; Pink Berets; Squirm You Worm; Chinese Circus; Puppet Wipes; New York's Finest Dining Experience*. WARNER EROS. BSK 3297 \$7.98, © M8 3297 \$7.98, © M5 3297 \$7.98.



Barney Josephson

Alberta Hunter

As one who counts an evening's exposure to the rough-hewn but radiant art of Alberta Hunter at Barney Josephson's Cookery on New York City's University Place among the richest musical experiences of a lifetime rich in such riches, I had some misgivings when I placed on my turntable a selection of previously unreleased recordings made by this singer at the peak of her career between 1935 and 1940.

She belongs, I suspect, to that type of artist whose communicative magic can be fully appreciated only within a radius of twenty yards or so of her physical presence. Mabel Mercer is the prototype; Sylvia Syms and even Peggy Lee are other good examples. So much is dependent upon, and identified with, the mock-severe frown, the sense of fun, the compassionate, omniscient smile, the knowing, insinuating, impudent wink, the arching of an eyebrow, the angling of the head, the throwaway gesture of a hand.

It's all there in the voice, too, of course: the warmth, the humor, the wisdom, expressed in an approach to phrasing dictated by a love and comprehension of the lyrical faculties of speech and especially its expressive rhythms. But, on a record, divorced from the physical presence and the illustrative auxiliaries of facial expression, posture, and gesture, a vital dimension is missing.

All this is true of Alberta Hunter, but still I found myself enjoying the record hugely. I could not help asking myself, however, whether I would have experienced the same delight had I not been able to evoke the mental image of Alberta Hunter at work one Saturday night at the Cookery last November. The answer was certainly "No"—which is not to say that there is no substantial reward here for the uninitiated. There is, but it is inevitably less than one gets "live."

My reaction to the first track, *You Can't Tell the Difference After Dark*, was surprise at how much the Alberta Hunter of 1935 or 1940 sounds like the Alberta Hunter of today—though obviously I should put it the other way around. Surprise was tempered as, track after track, the explanation became clear. The reason Alberta Hunter can pretty accurately duplicate at eighty-three what she did forty or fifty years ago is that she has never been—this is true also of Mabel Mercer—a singer in the sense of a vocalist sustaining a melody. Her art is more oratorical than lyrical. She is (and, as these tracks show, always has been) more *disease* than singer. But the art of the *disease* is the discovery and mastery of the *music of language*, and in this context Alberta Hunter is a great musician.

She is more of a jazz musician than Mabel Mercer, and on five of these tracks she is obviously rejoicing in the brilliantly inventive collaboration of Charlie Shavers on trumpet and Buster Bailey on clarinet. The backings elsewhere are less distinguished, but with Alberta Hunter the participation of a Shavers or a Bailey is simply a luxury bonus.

No credits are given, but the songs—an engaging potpourri of Tin Pan Alley, blues, and (very) soft porn—are all presumably hers.

—Henry Pleasants

ALBERTA HUNTER: *The Thirties*. Alberta Hunter (vocals); instrumental accompaniment. *Downhearted Blues; Send Me a Man; Fine and Mellow; Chirpin' the Blues; The Castle's Rockin'; Take Your Big Hands Off; You Can't Tell the Difference After Dark; Second Hand Man; I'll See You Go; Yelpin' the Blues; The Love I Have for You; Someday, Sweetheart; Boogie Woogie Swing; I Won't Let You Down; He's Got a Punch Like Joe Louis.* STASH ST-115 \$6.98.

CHEAP TRICK: *At Budokan*. Cheap Trick (vocals and instrumentals). *Hello There; Come On, Come On; Look Out; Big Eyes; Need Your Love;* and five others. EPIC FE 35795 \$7.98, ® FEA 35795 \$7.98, © FET 35795 \$7.98.

Performance: **Pleasant noise**
Recording: **Good remote**

Cheap Trick is one of the more likable of the wall-of-sound rock groups, possibly because it's so hard to dislike a lead guitar player who looks like Huntz Hall of the Bowery Boys, as Rick Nielsen does. Nielsen also writes most of the Trick's material, which ranges from songs that amount to practically nothing ("Would you like to do a number with me?" is the only thing that gets said in *Hello There*) to songs that wander off surrealistically in early Captain Beefheart style. *Surrender* starts out about the girl Mommy warned the singer/narrator about but ends up about Mommy and Daddy being a little weird, Mommy having been a WAC during the war, and so on. One suspects Nielsen's songs get this way by default, because he doesn't know enough or care enough to get them to stay on a point and make sense, but the more important thing may be that he realizes it doesn't make any difference. The subject deserves to be taken about as seriously as he takes it. The same attitude seems to infuse his guitar playing, which is everywhere; there's nothing very skilled going on, but one realizes it wouldn't make any difference if there were. In an era of throwaway rock-and-roll, Cheap Trick earns some points for being frankly and honestly cheap. And it does have a good beat. N.C.

JOE ELY: *Down on the Drag*. Joe Ely (vocals); instrumental accompaniment. *Fools Fall in Love; BBQ & Foam; Standin' at the Big Hotel; Crazy Lemon; Crawdad Train;* and five others. MCA MCA-3080 \$7.98, ® MCAT-3080 \$7.98, © MCAC-3080 \$7.98.

Performance: **Mediocre**
Recording: **Average**

I don't demand tremendous technique from singers, but I do want them to not let the damned pitch waver around at critical moments. Mostly I want them to be believable singing the song, whatever it is. Joe Ely here lets me down on both counts, coming up shorter on credibility than he does on technique. Sounds like a boy posing as a man, a middle-class kid posing as a cowboy, and so on. Some of the songs aren't too bad, actually (they have been on previous Ely albums I've heard), probably because four of them come from Butch Hancock, who has a certain flair for simplicity. And Ely's band plays pretty good back-up, about in the middle of the country-rock road. But I need more authority out of the main man, and less bluffing. N.C.

MICHAEL FRANKS: *Tiger in the Rain*. Michael Franks (vocals); instrumental accompaniment. *When It's Over; Living on the Inside; Hideaway; Underneath the Apple Tree; Satisfaction Guaranteed;* and four others. WARNER BROS. BSK 3294 \$7.98, ® M8 3294 \$7.98, © M5 3294 \$7.98.

Performance: **Not up to the songs**
Recording: **Very good**

I'll vote for Michael Franks as a songwriter but not as a singer. His lyrics are witty and
(Continued on page 92)

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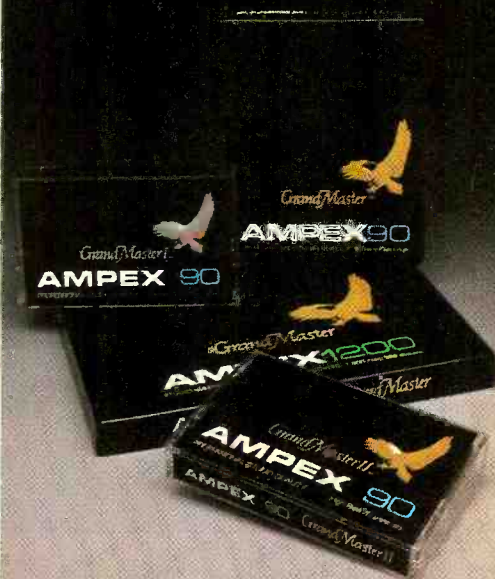
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cosmopolitan, his melodic and harmonic constructions agile and frisky (he writes in a largely jazz style), but his unisex vocals don't do the material justice. Although this album has excellent arrangements and production by John Simon and the back-up presence of such master musicians as bassist Ron Carter and guitarist Bucky Pizzarelli, Franks' voice is too thin and breathy and his vocal range too limited to give his songs the coloration they deserve.

But every Franks album I've ever heard has lyrics worth quoting. From this one's *Living on the Inside*: "I play the scales/And you protect the whales . . . Make love to me/Listening to Satie . . . We're so français/With lime and Perrier." *Satisfaction Guaranteed*

has this confession of sexual desire: "When I saw you there in your Danskin/Then the wolf jumped out of the lambskin." How can you dislike a fellow who writes like that? J.V.

STEVE GOODMAN: *High and Outside*. Steve Goodman (vocals, guitar); instrumental accompaniment. *Just Lucky I Guess; You Can Turn to Me; The One That Got Away; Luxury's Lap; One Bite of the Apple*; and five others. ASYLUM 6E-174 \$7.98, © ET8-174 \$7.98, © TC5-174 \$7.98.

Performance: **Low and inside**
Recording: **Very good**

This is the worst album Steve Goodman ever made. He sort of pointed toward it in the last

two, which showed him headed toward dryness and stylization and detachment, but there's nothing of a redeeming nature like *Banana Republics* this time. *Men Who Love Women Who Love Men* is an attempt to take things less seriously in the old-time Goodman fashion, but it comes off a pale and silly play on words. The verse Shel Silverstein contributed to *What Have You Done for Me Lately* is the best thing about the album, but it's the kind of joke you only need to hear once. Elsewhere the album falls flat when you stop listening to it because you owe Goodman something and just listen to it, period. It's more produced than anything else; all the production touches are there, brilliant segues from guitar to piano, harmonizing woodwinds, la-la voices in a Motown mode, and so forth, but "So what?" looms over every song. Goodman's been edging toward writing 1940's music and this time he just about has, managing to say practically nothing at least as moronically as Tin Pan Alley used to say nothing in the real Forties. And—except for *Luxury's Lap*—to couch it in less melody. I think he's been hanging around the middle of the road too long. N.C.

RECORDING OF SPECIAL MERIT

DOBIE GRAY: *Midnight Diamond*. Dobie Gray (vocals); other musicians. *You Can Do It; We've Got to Get It On Again; Weekend Friend; Miss You Nights; Sharing the Night Together*; and five others. INFINITY INF 9001 \$7.98, © INFT 9001 \$7.98, © INFC 9001 \$7.98.

Performance: **Exuberant**
Recording: **Good**

Dobie Gray has had a disproportionate share of downs in a career that got off to a promising start back in 1964 when he released the durable hit *The In Crowd*. In fact, there was one long period when Gray disappeared from music entirely and turned to acting.

He's been back in the musical mainstream since 1973 and now seems to have achieved professional stability. It's a good thing, too, for he has much to offer, including a warm, earthy voice and a fine sense of phrasing (both of which make him sound at times like a male Gladys Knight). He can take a rather simple r-&-b song or a country-flecked melody and make it swing by biting into its core and setting the juices to flowing, as is apparent here on the joyous number *We've Got to Get It On Again*. A wonderful exuberance pervades this album, which includes an amazingly fresh reworking of that worn-out reggae item, *I Can See Clearly Now*. There's no disco here, no "cute" capers, just plenty of plain old-fashioned good singing. P.G.

RECORDING OF SPECIAL MERIT

DAVID GRISMAN: *Hot Dawg*. David Grisman (mandolin, guitar); Richard Greene (violin); other musicians. *Dawg's Bull; Devlin's; Minor Swing; Dawgology; Neon Tetra*; and two others. HORIZON SP-731 \$7.98, © 8T-731 \$7.98, © CS-731 \$7.98.

Performance: **Sparkling**
Recording: **Very good**

David Grisman just doesn't think like other musicians, except maybe vaguely and superficially like some of the guys in Oregon. What
(Continued on page 96)

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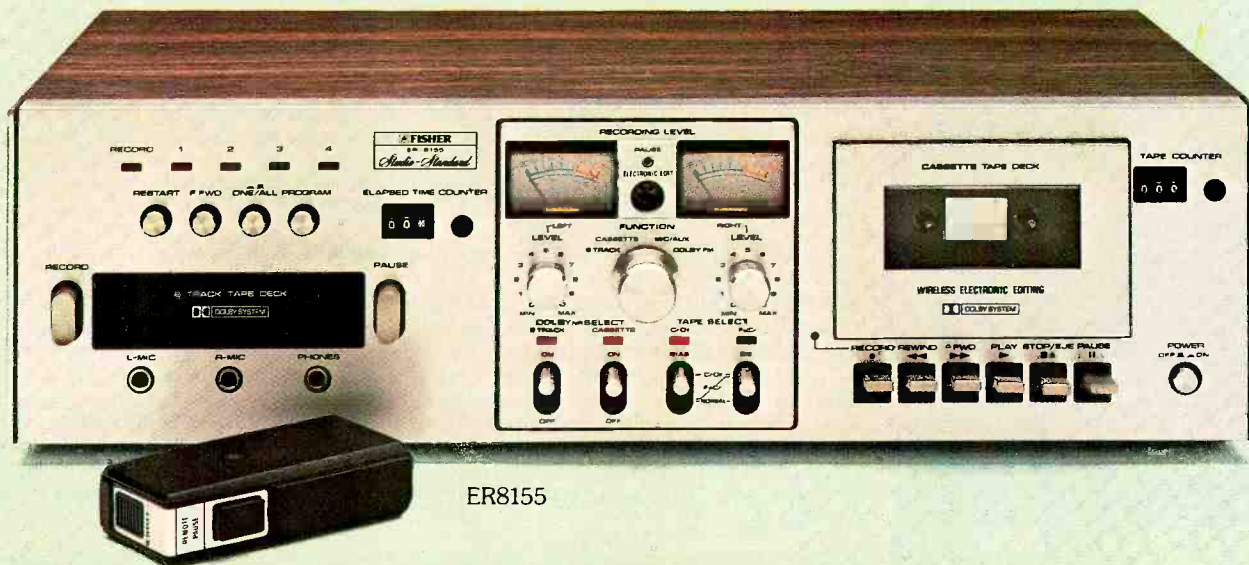
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Joseph Sia Photos

IN case you hadn't noticed, the Elvis Costello backlash is upon us, and it shouldn't come as any particular surprise, the recent brouhaha over his allegedly racist remarks about Ray Charles and James Brown quite aside. But it is an indication of just how fast things happen in pop music that the man who absolutely creamed the competition for Album of the Year in a January *Village Voice* critics' poll could get punched out by Bonnie Bramlett (whose stock with critics is about as low as Barry Manilow's) in March for being obnoxious, and yet it's Bramlett who comes off looking like the good guy.

But, like I said, no surprise. Costello is both a commercial success and a bona fide star now, and he's done for punk/New Wave what his namesake did for rock-and-roll: made it "respectable." So, given that none of his work up until now has exactly dripped with compassion for human frailty and that he's the B.M.O.C. of the whole scene, it's only natural that people should be gunning for him both critically and literally (there were 150 anonymous threats of violence the night of his recent appearance at New York's Palladium).

Unfortunately for the new King, his album "Armed Forces" comes out at roughly the same time as the Arista debut of Graham Parker (himself also—and already—the victim of an Elvis-derived backlash); viewed dispassionately, it looks distinctly second best in comparison. In pop music, timing is everything, and Parker (who has, superficially, things in common with Elvis—they're both short, intense, pub- and punk-influenced) made the mistake of coming to our initial attention mere months before Costello. He suffered for it commercially, and it was probably a question of focus. Elvis' first two albums immediately established an identifiable style, both musically and in terms of image-mongering; his lyrics were all revenge and guilt while his band sounded both pop and serious. Parker, on the other hand, had a tendency to wander stylistically—a Dylanesque diatribe here, an r-&-b raver there, and while I found his first two records generally as compelling as Elvis', there was no question that he came off a tad lightweight. A muddled third album and a second-rate live set released to fulfill a contractual commitment didn't help the situation much either.

"Squeezing Out Sparks," however, is not only the definitive Graham Parker but a watershed work that may one day be regarded as the first true Eighties record. Its theme, in the immortal words of P-Funk mastermind George Clinton, might be summarized as "Think! It ain't illegal yet," except that Parker wants to shake you up and make damn sure that you *feel*, too. This is a savage, furi-

ous indictment of the failure of nerve of the narcissistic Me Decade, and the aim is unerringly true. There are lethal snipes at all sorts of Seventies preoccupations, from the dismentality (*Saturday Night Is Dead*, and with this song is it *ever!*), to easy acceptance of the futility of relationships (*Discovering Japan*), to the idea that our salvation will come from some "outside" force, be it political white knights like Jerry Brown or Margaret Thatcher or *Close Encounters* aliens (*Waiting for the UFO's*). But there's no glib sloganeering; these are not Sixties protest songs. Rather, Jack Nitzche's pared-down production, the Rumour's whiplash guitar attack, and Parker's choked, soulful singing all combine, in the best rock tradition, to form an almost physical assault: the message comes across in the sheer intensity of the sound and the beat. You may not catch all the words, but nonetheless you'll know exactly what they mean the minute you hear them. Like all the greats, from Presley to Dylan to the Who to Springsteen to Phil Spector to the Clash, Parker's new music *sounds* like what it says.

ELVIS' new music does too, of course, but only in the sense that it sounds like what he's saying is that he's *unsure* of what he's saying. It's a holding action, but he gets away with it because his sense of craft is intact and because he's wisely jettisoned both the amphetamine rockabilly of the first album and the organ mysterioso of the second in favor of something more accessible. "Armed Forces" is actually a little pop tour de force, with the Attractions and producer Nick Lowe providing an irresistible sonic backdrop that generally allows you to overlook the fact that he's playing image games, being deliberately vague about what's bugging him. The give-away in that regard is the album's final track, an old Lowe tune from his Brinsley days called (*What's So Funny 'Bout*) *Peace, Love and Understanding?* Its flower-child sentiments, transparently insincere when Lowe wrote the song as a genre exercise/exploitation piece, nonetheless get Elvis and the band excited enough that they turn it into a passionate, raging wall of sound. They sound so much like they *mean* it that you're not troubled by the double irony, and the song simply overpowers everything else on the album.

There's no question that Costello's next record is going to be crucial. On the basis of the new songs I saw him unveil in live performance recently, it's clear he can crank out brilliant pop forever, but I wonder how long he can pull off the Dylanesque myth-making he obviously aspires to. Especially now, with a revved-up Graham Parker nipping at his heels.

—Steve Simels

ELVIS COSTELLO: *Armed Forces*. Elvis Costello and the Attractions (vocals and instrumentals). *Accidents Will Happen; Senior Service; Oliver's Army; Big Boys; Green Shirt; Party Girl; Goon Squad; Busy Bodies; Moods for Moderns; Chemistry Class; Two Little Hitlers; (What's So Funny 'Bout) Peace, Love and Understanding?* COLUMBIA JC 35709 \$7.98, © JCA 35709 \$7.98, © JCT 35709 \$7.98.

GRAHAM PARKER AND THE RUMOUR: *Squeezing Out Sparks*. Graham Parker (vocals); the Rumour (vocals and instrumentals). *Discovering Japan; Local Girls; Nobody Hurts You; You Can't Be Too Strong; Passion Is No Ordinary Word; Saturday Nite Is Dead; Love Gets You Twisted; Protection; Waiting for the UFO's; Don't Get Excited.* ARISTA AB 4223 \$7.98, © AT8 4223 \$7.98, © ATC 4223 \$7.98.

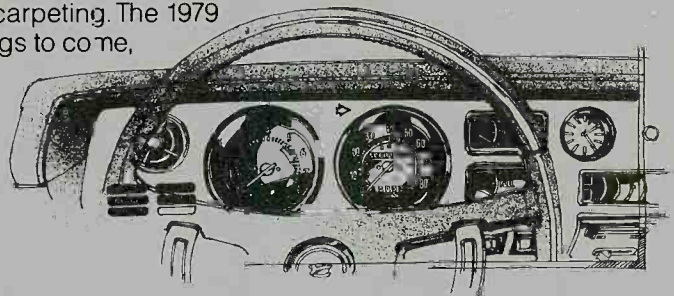
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he has been evolving, and here evolves another notch, is a kind of hillbilly jazz. It really isn't as complex as it at first sounds—or as far out, when you compare it to Stéphane Grappelli and Django Reinhardt's *Minor Swing*, included here. But it is wonderfully difficult to play with this kind of rippling clarity and cleanliness, and Grisman and his mates, although they are virtually flawless, maintain a tension and a high dramatic quotient throughout. It's one of the more engrossing instrumental albums I've got, ranking just behind the previous one by Grisman. N.C.

THE GUESS WHO: *All This for a Song*. The Guess Who (vocals and instrumentals); other musicians. *C'mon Little Mama; That's the Moment; It's Getting Pretty Bad; Raisin' Hell on the Prairies; Moon Wave Maker*; and five others. HILLTAK HT 19227 \$7.98, © TP 19227 \$7.97, © CS 19227 \$7.97.

Performance: **Not bad**
Recording: **Nice**

Salivating for a Guess Who reunion? Well, neither am I, although I was a fan. This one, however, is the Guess Who only in the sense that a band featuring Ringo Starr and the late Stu Sutcliffe could be called the Beatles. Unremarkable bassist Jim Kale is the only person left around from the band's glory days as a hit-single machine (Don McDougall was briefly involved with one of the post-Randy Bachman incarnations of the group, while the two new members are unknowns), and, frankly, the Guess Who were never much more than a vehicle for Burton Cummings anyway. He gave them their vocal sound, most of their musical direction, and their entire slightly warped sensibility (a lot less pop and more hippie/punk than many supposed at the time).

But, wonder of wonders, this new effort actually *sounds* like a middling Guess Who album. Song for song, it's a lot stronger than the last two they did with Cummings still aboard, and the dual guitar work and lyrical spitefulness faithfully recalls the spirit of the original edition. (On *Taxman*, incidentally, either someone is doing a really great imitation of Burton or else the old Gross Out King himself is doing the vocal uncredited.) Much of the record, especially the title song and *C'mon Little Mama*, has the typically Canadian mixture of heavy-metal and wheat-field soul that made this band almost special, and while I don't hear anything here that really knocks me out, I hope they stick together long enough to try again. S.S.

HORSLIPS: *The Man Who Built America*. Horslips (vocals and instrumentals). *Loneliness; Tonight; I'll Be Waiting; If It Takes All Night; Green Star Liner; The Man Who Built America*; and four others. DJM DJM-20 \$7.98, © DJM8-20 \$7.98, © DJMC-20 \$7.98.

Performance: **Promising**
Recording: **A bit dense**

There's a germ of something here, but maybe if you take a lot of vitamin C you won't get it. Seriously, folks, Horslips sounds better than it has a right to; it's one of those synthetic rock groups of the Seventies, its sound based mainly upon radio-listening experience. The band isn't punk, but echoes of the pioneer groups—the Who, Jethro Tull, and Free—run through this, along with hints of traditional Irish instrumentation (the five members of Horslips all hail from Ireland). I include Free

not because it pioneered anything but because it was as muscular on guitar as this album is. The mix, not much better than you get at an actual rock concert, makes this muscularity seem even more pronounced. The Horslips are not great writers, but they are at least interested in writing, and their songs, like their style, suggest there's a fair amount of potential crawling around here. A little of it is already realized. N.C.

RECORDING OF SPECIAL MERIT

JOE JACKSON: *Look Sharp!* Joe Jackson (vocals, piano); other musicians. *One More Time; Sunday Papers; Is She Really Going Out with Him?; Happy Loving Couples; Throw It Away; Baby Stick Around; Look Sharp!; (Do the) Instant Mash*; and three others. A&M SP-4743 \$7.98, © 8T-4743 \$7.98, © CT-4743 \$7.98.

Performance: **Spiffy**
Recording: **Likewise**

Well, first of all, you baseball buffs will be interested to know that that is his real name. This Joe is hardly shoeless (check the cover and that spiffy pair of white Denisons), and, being English, he's probably a soccer fan (I have it on good authority that he's never heard of the Chicago Black Sox scandal, "say it ain't so," and Hannibal, Mo.). Second, he's much taller than he looks in the photo on the back of the album, and not terribly angry, so let's hear none of those Elvis Costello comparisons some people are already beginning to make ("New Costello" seems to be replacing "New Dylan," which probably makes both Elvis and Bob very happy, if perhaps for different reasons).

Jackson is yet another in the seemingly endless procession of post-punk English pop craftsmen that recalls nothing so much as the halcyon days of 1964-1965 and the British Invasion. His rock-and-roll is predicated on both melody and riff (just like the old days), it is primitively spare in a knowing and sophisticated way (here the Costello comparison is apt, because his band gets exceptional mileage out of a sound quite devoid of overdubs), old-fashioned romantic, and quite irresistible. I wouldn't be at all surprised, in fact, if Peter Asher wound up producing some of these songs (*Is She Really Going Out with Him?* in particular, which has a Hook for the Ages) for the next Linda Ronstadt album, and that's not meant as a criticism. This kind of stuff will always sound timeless: it's not a throwback, and it's certainly not the Sound of the Eighties, just a wonderful pop-rock confection that will remind you of everyone from Paul McCartney to Steely Dan while it offers a little something for the mind as well as the ear. An auspicious debut. S.S.

LEAH KUNKEL: *Leah*. Leah Kunkel (vocals); instrumental and vocal accompaniment. *Step Right Up; Under the Jamaican Moon; Souvenir of the Circus; Down the Backstairs of My Life; Losing in Love*; and five others. COLUMBIA JC 35778 \$7.98, © JCA 35778 \$7.98, © JCT 35778 \$7.98.

Performance: **Poor**
Recording: **Good**

You may not think it possible that there is a Rita Coolidge school of singing, but, judging from Leah Kunkel's vocals, there is. Like
(Continued on page 98)

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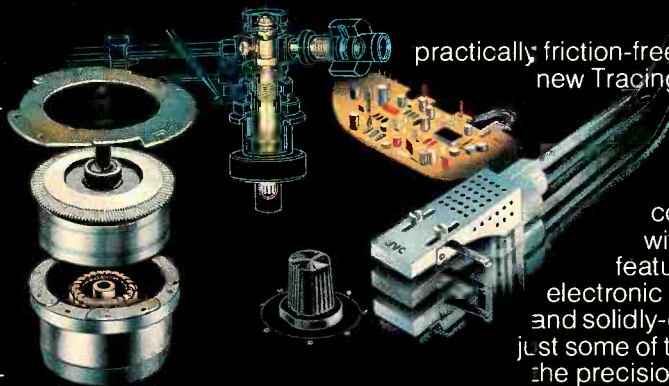
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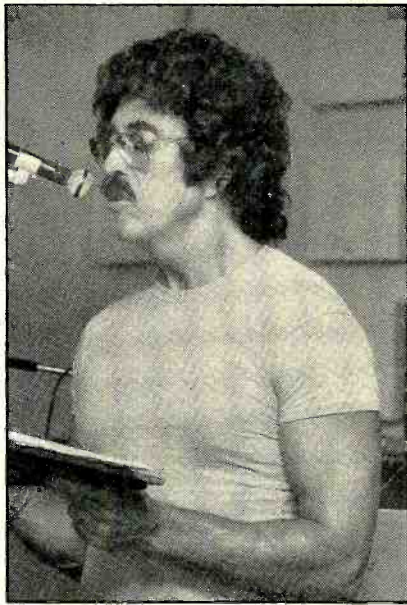
QL-A7



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CIRCLE NO. 35 ON READER SERVICE CARD

Mark Murphy's "Stolen Moments"



Tom Coppi/Muse

MARK MURPHY has been in the music business, and recording, for over twenty years, so it's slightly surprising—or no surprise at all, depending on how you look at these things—that his "Stolen Moments" on the Muse label is one of the freshest, most imaginative, and most expertly entertaining albums of the year. But, good as it is, there's a good chance it will be overlooked, since the tunnel vision of the pop-music world seems worse than ever in 1979. Everyone is fiercely squinting beyond the blue horizon in an effort to discern who, or what, will be tomorrow's noonday sun—thus fairly well cutting off sight of what's happening here and now. The public still seems mainly to be backing and filling: buying five million dollars' worth of Elvis' old recordings since his death, listening to a lot more c-&-w than ever before (John Denver feels that *that's* where the New Biggie will come from), and expending much of its energy following the relentless but largely anonymous beat of disco.

While waiting for the musical millenium, which everyone assures me is as inevitable as the 1986 reappearance of Halley's Comet, I've become more than content with the discovery, or rather rediscovery, of some truly fine talents operating in our midst right now. Recently I extolled in these pages the pleasures of Helen Merrill, one of our best and most neglected singers, and now I'd like to advise you to give Mark Murphy's newest album a try, for his kind of music-making, like Merrill's, is timelessly satisfying.

His voice is a blend of Sinatra and Nat "King" Cole, among others, with perhaps just half a jigger or so of Arthur Prysock. The repertoire on "Stolen Moments" includes the Jobim classic *Waters of March*, the old Frankie Laine hit *We'll Be Together Again*, Annie Ross' jazz-bebop tinsel-streamer *Farmer's Market*, and even, believe it or not, *Again*, a song I thought had surely met its permanent end at the hands of Ida Lupino, who gurgled her way through it in her role as a nympho-dipso night-club singer in the old movie *Road House*.

No matter what the material, Murphy has the sure touch of a man who knows instinctively what artistic results he wants to achieve. His generous, freewheeling style—a fusion of jazz, pop, and rock, in that order—has a bounce-board liveliness seldom achieved in studio recordings. A good deal of the credit for this would have to go to the superb collection of musicians he's gathered around him, in particular Richie Cole, whose alto sax is almost Murphy's co-star here.

If you have the idea, however, that Mark Murphy is only an assemblage of known styles and techniques, or that he merely assumes any convenient old commercial mantle, a single hearing of any track of this album will demonstrate otherwise. Like anyone who has securely mastered a craft, he's not afraid to borrow and rework whole musical genres. His bossa nova in *Waters of March* uses Jobim's original as a jumping-off point to develop his own ideas, his ballad singing in *Again* uses Sinatra as touchstone, and his deft and angular work in *Farmer's Market* is the kind of root-fed jazz singing that makes eminent sense in 1979. These are no smoke rings of nostalgia for "the better days I've seen," but an enthusiastic rediscovery of the useful beauty in our bulging popular repertoire. Combining the skills of an explorer and an editor, Mark Murphy has already outlasted several pop messiahs of the past couple of decades, and there is ample evidence here to suggest that he might bury a couple more.

—Peter Reilly

MARK MURPHY: *Stolen Moments*. Mark Murphy (vocals); Richie Cole (alto saxophone); Warren Gale (trumpet); Mark Levine (trombone); Smith Dobson (piano); Jim Nichols (guitar, fender bass); Chuck Metcalf (bass); Paul Breslin (bass); Vince Lateano (drums); Jack Gobbetti (percussion). *Stolen Moments; Again; Farmer's Market; D.C. Farewell; Waters of March; Sly; We'll Be Together Again; Don't Be Blue; Like a Love (O Cantador)*. MUSE MR 5102 \$6.98.

Ms. Coolidge, Ms. Kunkel is a handsome lady, but it would be stretching the bounds of gallantry to pretend that she sings beyond a one-and-a-half-octave range or that she has an individual style. In plain fact, she is doing well here to strike a note or a phrase that is not sharp or flat. Leah Kunkel is not only related to Russell Kunkel, a Los Angeles studio drummer, she is also getting a boost from her association with Art Garfunkel. It wouldn't make any difference to whom she were related or allied if she had talent that could stand by itself, but, alas, she does not. J.V.

JIMMIE MACK: *On the Corner* (see Best of the Month, page 85)

MAX DEMIAN BAND: *Take It to the Max*. Max Demian Band (vocals and instrumentals). *Havin' Such a Good Day; Still Hosed; High School Star; Paradise; Through the Eye of a Storm*; and four others. RCA AFL1-3273 \$7.98, Ⓟ AFS1-3273 \$7.98, © AFK1-3273 \$7.98.

Performance: **Fun**
Recording: **Good**

The group is named after a character in a novel by Herman Hesse, but the focus is on lead singer and songwriter Paul Rose. His writing is sometimes effective, but the arrangements and performances are too derivative of mid-Sixties groups—the Stones on *Still Hosed*, the Kinks on *High School Star*, and the Byrds school of zonked Los Angeles bands on *Paradise*. Not that these cuts aren't fun, especially *High School Star*, but why call yourselves Max Demian when Mick Davies and the Slow-Motion Fingerpops would be just as accurate? There are some other figures from the Sixties involved here too: Charles Koppelman, who has published Rose's material and once owned a production company whose prime client was the Lovin' Spoonful, and producer Artie Kornfeld, an instigator of Woodstock who wrote and produced *The Rain, the Park, and Other Things* for the Cowbills. Talk about old home week! J.V.

RECORDING OF SPECIAL MERIT

RALPH McTELL: *Live*. Ralph McTell (vocals, guitar, piano). *First Song; Grande Affaire; Big Tree; Zimmerman Blues; Maginot Waltz; When I Was a Cowboy; Naomi; Streets of London*; and seven others. FANTASY F-9571 \$7.98.

Performance: **Real**
Recording: **Decent remote**

Although Ralph McTell's *Streets of London* finally became a hit in England in 1975, he still is not very well known in America—but, by God, he is surviving the Seventies, no small thing for a folkie. McTell started out as a street singer, and his music is filled with compassion for the working class from which he sprang. This set, recorded at the Royal Albert Hall in London and in Sydney, Australia, serves Americans as a pretty good sampler of some of his better songs—although he has written some good ones not included here. Singing like somebody out of D. H. Lawrence and backing himself with better-than-average guitar, McTell may remind you of the days when live and spartan were the only ways for folkie albums to be. But his music is more programmable than that, and now he is said to

(Continued on page 100)

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be working on a studio album with a band. I'd get this one to compare that one to, if not for its own sake. Either way, it's worth it. N.C.

MILTON NASCIMENTO: *Journey to Dawn*. Milton Nascimento (guitar, piano); vocal and instrumental accompaniment. *Alouca*; *Credo*; *Idolatrada*; and seven others. A&M SP-4719 \$7.98, Ⓜ 8T-4719 \$7.98, © CS-4719 \$7.98.

Performance: **Great guitar, but . . .**
Recording: **Overdone**

Plastic mood music, the mood being Brazilian (murmurs in the rain forest, chants in the night, doomed Amazonian lovers, etc.) and the music, by Milton Nascimento, being one long churning cliché trying to pass as "what's new" since the muttering demise of the bossa nova several years ago. There is a gaudy vocal chorus chugging away in the background, but Nascimento's arrangements keep it from colliding with his superlative acoustic guitar playing. Trying to admire that guitar playing, however, is like trying to admire a spray-shel-lacked orchid in a bowl of lime Jello. P.R.

WILLIE NELSON: *Sweet Memories*. Willie Nelson (vocals, guitar); instrumental accompaniment. *Everybody's Talkin'*; *Wonderful Future*; *December Day*; *Both Sides Now*; and six others. RCA AHL1-3243 \$7.98, Ⓜ AHS1-3243 \$7.98, © AHK1-3243 \$7.98.

Performance: **Good**
Recording: **Good**

What is so rare as a month in which some record company doesn't bring out some sort of

Willie Nelson reissue? It's RCA's turn, and, as these things have been going, RCA's old tapes and takes are less ridiculous than most. In fact, if the instrumentation weren't so candied-over with strings, this would be fairly interesting. As it is, you can hear Willie's guitar and now and then some other members of his present band. The attraction is the repertoire, Joni Mitchell and Fred Neil songs and all that, and it serves to demonstrate that Willie wasn't quite ready to do the "Stardust" bit until he actually did it—not quite ready, but quite a singer nonetheless. It also demonstrates that an important part of "Stardust" (and of the groundbreaking "gospel" album before it, "The Troublemaker") was Willie's band and its way of honky-tonking this "softer" music. "Sweet Memories" demonstrates that negatively, with soft instrumentation that doesn't work as well. The thing in it that *does* work pretty well is Willie Nelson. N.C.

RUFUS: *Numbers*. Rufus (vocals and instrumentals); other musicians. *Ain't Nobody Like You*; *You're to Blame*; *Dancin' Mood*; *Red Hot Poker*; *Don't You Sit Alone*; and five others. ABC AA-1098 \$7.98, Ⓜ AA-1098 \$7.95, © AA-1098 \$7.95.

Performance: **Resourceful**
Recording: **Very good**

When Chaka Khan, the incendiary soul sister who stoked the fires of Rufus with her blistering vocals, struck out on her own to climb the popular charts as "every woman," the question arose how the remaining five members of the group might fare without her. Quite well, I

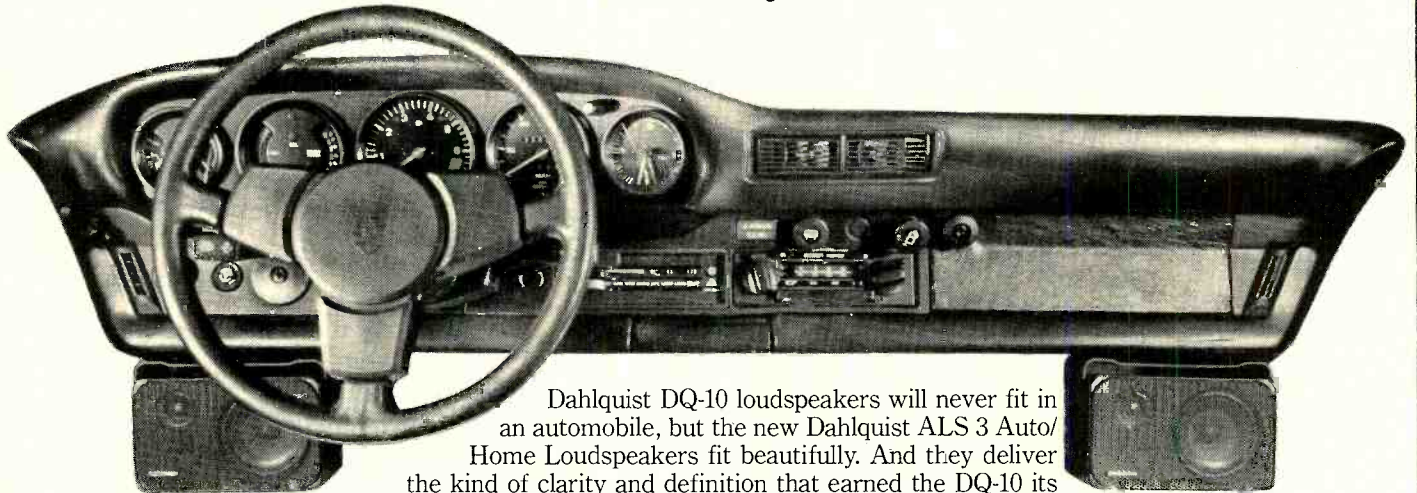
think, judging from this album. Though ABC says that Ms. Khan will continue to record with Rufus from time to time, it must be gratifying to this combo to know that they can produce a satisfying album on their own. Khan's electric presence amplified the group's essential power, but at times she tended to obscure their solid musicianship. Indeed, Rufus is as much an instrumental as a vocal group, and it is the former aspect that shines brightest on "Numbers." Two of the best tracks, *Dancin' Mood* and *Red Hot Poker*, are primarily instrumental, using the vocals in a complementary manner. On *Bet My Dreams*, the lead voice is assumed by jazz trumpeter Freddie Hubbard. He is not likely to win any accolades for his limited performance here, but he performs well within the group's general context. P.G.

MARC TANNER BAND: *No Escape*. Marc Tanner (vocals); instrumental accompaniment. *She's So High*; *Elena*; *Edge of Love*; *Never Again*; *In a Spotlight*; and five others. ELEKTRA 6E-168 \$7.98, Ⓜ ET8-168 \$7.98, © TC5-168 \$7.98.

Performance: **Surgical**
Recording: **Good**

Here is an album in search of a hit single. Marc Tanner is an ambitious and hardworking young songwriter, but his approach to his craft seems rather clinical: take a stock musical formula and a stock character expressing stock emotions, then diddle around with the chord changes and—who knows?—with a lit-
(Continued on page 102)

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tle luck you've got a Top-10 smash. The band here is not a regular unit but consists of studio musicians, some of them topnotch, such as keyboardist "Smitty" Smith. Although the sound and performances are professional, I don't hear anybody working overtime or going for something original. J.V.

UFO: *Strangers in the Night*. UFO (vocals and instrumentals). *Natural Thing; Out in the Street; Only You Can Rock Me; Doctor Doctor; Mother Mary; The Kids; Love to Love;* and six others. CHRYSALIS CH2 1209 two discs \$11.98, © TCH-1209 \$11.98, © DCH-1209 \$11.98.

Performance: **Grand Funk recycled**
Recording: **Good enough, considering**

Sometimes the suspicion overtakes me that the editors send me obnoxious teenybopper albums like this one because they like to hear me cuss and carry on about the certain disintegration of the human race. Maybe they think it's good for me, cathartic in some way, and maybe it is. But why do so many of them, like this one, have to be live two-record albums? Do the editors have any idea how long these damned things run, or how long they seem? I will say one thing for UFO: it must be hard to play with virtually no ideas at all beyond dumb riffs and cliché uses of feedback and still make it seem canned—before a live audience yet. More for them I will not say. As for the human race—bah, humbug. N.C.

PORTER WAGONER: *Today*. Porter Wagoner (vocals); instrumental accompaniment. *I'm Gonna Feed 'Em Now; Ole Slew Foot; I'm Gonna Act Right; Tennessee Saturday Night; High Country;* and five others. RCA AHL1-3210 \$7.98, © AHS1-3210 \$7.98, © AHK1-3210 \$7.98.

Performance: **So-so**
Recording: **Excellent**

I heard ol' Porter was tinkering with disco music in the studio, but there's nothing here that verifies that. There is a smidgin of synthesizer and a little clavinet, and, of course, there's a lot of tinkering in general, as Porter tinkers a lot better than he sings. And he usually produces a better album than he should, musical talent considered. There are a couple of nice cuts here, *I'm Gonna Feed 'Em Now* being the best one, but there's also much me-

diocrity and humdrum and notes not quite held and songs not worth it and stuff like that. N.C.

MUDDY WATERS: *Muddy "Mississippi" Waters Live*. Muddy Waters (vocals, guitar); James Cotten, Jerry Portnoy (harmonica); Johnny Winter, Luther Johnson, Bob Margolin (guitar); "Pine Top" Perkins (piano); Charles Calmese, Calvin Jones (bass); Willie Smith (drums). *Mannish Boy; She's Nineteen Years Old; Nine Below Zero; Streamline Woman; Howling Wolf;* and two others. BLUE SKY JZ 35712 \$7.98, © JZA 35712 \$7.98, © JZT 35712 \$7.98.

Performance: **Just fine**
Recording: **Good**

You won't catch me saying anything bad about Muddy Waters—I love him—but I wish there had been more variety of tempo in the selections here. Of the seven numbers, five are as slow as they can be, even allowing for blues tempos, and only *Baby Please Don't Go* is relatively upbeat. Although some individual cuts are terrific (for instance, *She's Nineteen Years Old* and *Mannish Boy*), the album as a whole is less than satisfying.

But Waters is in fine voice. After nearly fifty years of singing blues, he is recognized as an important artist, he is at the peak of his popularity, his talent is intact, he is solvent, and he is having a good time. By God, there is justice! J.V.

RECORDING OF SPECIAL MERIT

DOC AND MERLE WATSON: *Live and Pickin'*. Doc Watson (vocals, guitar, banjo, harmonica); Merle Watson (guitar, banjo); T. Michael Coleman (bass, vocals). *Dig a Little Deeper in the Well; Milk Cow Blues; Wild Bill Jones; Memories of You Dear; Daybreak Blues (Blue Yodel No. 12); Big Sandy/Leather Britches; Let the Cocaine Be; All I Have to Do Is Dream; Got the Blues; St. James Hospital/Frosty Morn; Streamline Cannonball.* UNITERED ARTISTS UA-LA943-H \$7.98, © EA943-H \$7.98, © CA943-H \$7.98.

Performance: **Elegant**
Recording: **Good**

Doc and Merle Watson are better equipped to make good live albums than most people because they play better. There are practically

no gimmicks or "studio magic" in their studio albums. It comes down to the night's program, as a practical matter, and for "Live and Pickin'," recorded in San Francisco, they've uncovered yet another tasty batch of charming but not overly familiar songs, these having been written by everyone from Jimmie Rodgers to John Hurt to Roy Acuff.

Doc has favored this one with more flat-than-finger-picking, which always helps—not that his finger-picking isn't fine, but his flat-picking is so extraordinary. This one has good examples abounding everywhere (and here and there a humanizing unclean lick), but the fastest example is on *Leather Britches*. The album has an extraordinary quality of no-frills directness, a spontaneous affability that makes live recording worth the trouble. It really is a lot like being there. N.C.


RECORDING OF SPECIAL MERIT

JOHNNIE LEE WILLS: *Reunion*. Johnnie Lee Wills (vocals, fiddle); Johnny Gimble (fiddle, mandolin, vocals); John Thomas Wills (vocals); Joe Holley, Curly Lewis (fiddle, vocals); Eldon Shamblin, Don Tolle, Roy Ferguson (guitar); Ted Adams (bass); Clarence Cagle (piano); Gene Crownover (steel); Glenn Rhodes (saxophone); Wayne Johnson (clarinet, saxophone); Alex Brashear (trumpet); Claude Clemmons, Tom Montgomery (drums). *Silver Bells; Rag Mop; Memories of You Dear; Four or Five Times; Rosetta; South; Milk Cow Blues;* and seven others. FLYING FISH FF-069 \$7.98, © FLF-8359-069(H) \$7.95, © FLF-5359-069(H) \$7.95.

Performance: **Sweet swinging**
Recording: **Excellent**

Johnnie Lee Wills is the brother of the late Bob Wills, who had the most famous country-swing band of them all. Johnnie Lee played in it for a while, then formed his own, making his home base the huge dance halls in Tulsa. I find it hard to believe Johnnie Lee's band regularly sounded this good—this is just about the most congenial country-swing album I've ever run across—but he had his own little trademarks that set his band slightly apart from brother Bob's. Johnnie opted for more of a jazz sound, mainly, and here the horns and reeds are beautifully used behind the fiddled three-part harmonies. It's extraordinary that these fellows could come back after all these years and play together like this—they must have been some musicians in the first place. Of course, the two names most familiar now—Johnny Gimble, a super musician now ubiquitous in Nashville sessions, and Eldon Shamblin, who still tours occasionally with Merle Haggard—were members of Bob's band, not Johnnie's, although Gimble sat in with Johnnie sometimes. Gimble also seems largely responsible for these utterly right and natural-sounding arrangements, made on the spot. But no matter; here's an album with fine taste and a friendly spirit that shows you can have more fun with country swing than I thought you could. And wouldn't it be neat if *Rag Mop* became a hit again? N.C.

FRANK ZAPPA: *Sheik Yerbouti*. Frank Zappa (vocals, guitar); instrumental accompaniment. *Baby Snakes; Rubber Shirt; Dancin' Fool; Wild Love; I'm So Cute; Flakes; I Have Been in You; Tryin' to Grow a Chin;* and ten others. ZAPPA SRZ2-1501 two discs (Continued on page 104)



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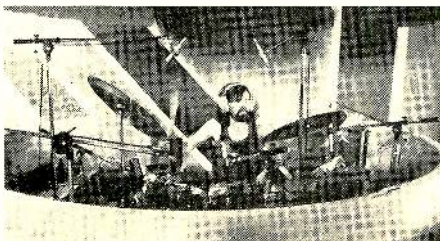
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\$14.98, © ZT-8-2-1501 \$13.98, © ZT-4-2-1501 \$13.98.

Performance: **Offal material**
Recording: **Good**

Introducing his own label gives Frank Zappa the opportunity to deposit several giant do-do's on your carpet and then, in an equally infantile way, wait for you to tell him what a good boy he is. He giggles and pants and shouts through such things as the swinish *Wild Love*, the repellent S&M, pansexual excesses of *Broken Hearts Are for Assholes*, and the childish exhibitionism of *I Have Been in You* with all the gleeful abandon of one of Rodney Laing's patients smearing his feces on the wall to prove his essential "health." The all-time low point (one must hope) is plumbed here in *Jewish Princess*, a belligerent, incredibly gross piece of hate-filled crap that belongs in a shrink's office and not on a recording. The delusional aspect of all this is that Zappa apparently considers himself something of a social and sexual satirist along the lines of a musical George Grosz and deserving of some kind of Award for Candor. In actuality he's more like the clumsy illustrator of one of those little porn comic books that are devoured by experience-starved kids who still think that scatology and sexuality are the same thing. An abusive, sickening album. (Sheik Yerbouti, if anyone cares, is Zaplish for the 1976 disco hit *Shake Your Booty* by K.C. and the Sunshine Band.) P.R.

COLLECTION

WALLS TO ROSES: *Songs of Changing Men.* Charlie Murphy, Fred Small, Willie Sordill, Kenny Arkin, Chris Tanner, Blackberri (vocals); instrumental accompaniment. *Gay Spirit; Brothers; Walls to Roses; The Matador; The Flowers, the Weeds; Are You Karen Silkwood?*; and four others. FOLKWAYS FTS 37587 \$7.95.

Performance: **Well-meant but numbing**
Recording: **Good**

When all the rhetoric and woolly ideology are cleared away, what we have here are ten songs mainly on the subject of gay liberation. Members of the all-male Walls to Roses collective (originally from Denver, Portland, Minneapolis, and San Francisco, now in Cambridge, Massachusetts) wrote the songs and sing them. Six women were hired as supporting musicians, a technical engineer, and a staff photographer.

On the face of it, the album is a worthy effort, and some of the songs are rather touching: the title song, for one, by Jeff Langley, and Willie Sordill's reflective *For My Men Friends*, as well as two sturdy contributions—*The Flowers, the Weeds* and *When Will the Ignorance End?*—from the black member of the group, who signs himself Blackberri. Chris Tanner's *The Sensitive Little Boy* also merits mention. The rest is rather slumpy stuff, such as *Tears Fall from the Sky*, with its bum grammar and self-pitying sentimentality, that is not likely to coax too many "brothers" from the dark safety of their closets. The singing and guitar accompaniments are generally good, though never quite good enough. Biographies and pictures of all the participants are provided, along with complete texts and guitar chords—I guess for those who might want to join the cause and mount their own performances. P.K.

DISCO



BROOKLYN DREAMS: *Sleepless Nights.* Brooklyn Dreams and Donna Summer (vocals); instrumental accompaniment. *Make It Last; Sleepless Nights/Send Me a Dream; First Love; Street Man; Heaven Knows*; and five others. CASABLANCA NBLP 7135 \$7.98, © NBL8 7135 \$7.98, © NBL5 7135 \$7.98.

Performance: **Not good enough**
Recording: **Fine**

I can understand why Donna Summer would lend her name to this album. Brooklyn Dreams is clearly in the crossover disco mode she pioneered: they produce lots of music, well arranged by Bob Esty, with a solid disco beat and mood-changing dynamic shifts; and they also display a concern for song structure and musical performance. You are meant to listen to Brooklyn Dreams, not just dance to them.

The three guys can sing. *That's Not the Way* rips through three dynamite choruses; the title song is a rocking stab at funk that keeps promising more than it delivers; *First Love* is rock-burnished Fifties material delivered just about straight; and their best effort, *Street Man*, sets a strong, fast electronic beat against nicely extended melodic lines. Despite Brooklyn Dreams' vocal strengths, though, there's precious little invention in the songs. There's just too much of the Bee Gees in them, in their lyrics and even in their sound, especially in the background vocals to *Touching in the Dark* and *Long Distance*.

In this atmosphere, Donna Summer's disco hit *Heaven Knows* sticks out like a healthy thumb. Even speeded up, and with Ms. Summer contributing only backgrounds, it's the most interesting song in the album. E.B.

HERBIE MANN: *Super Mann* (see Best of the Month, page 86)

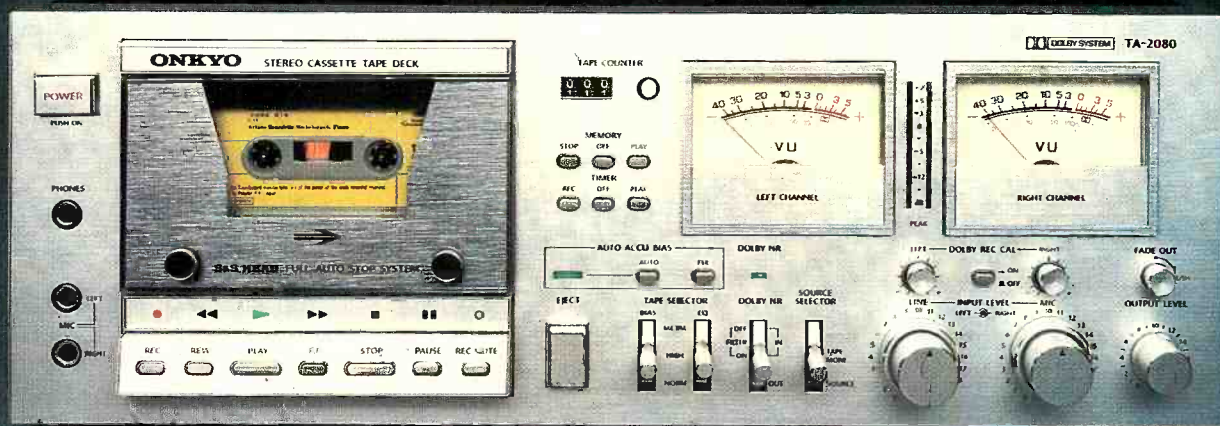
MECO: *Superman and Other Galactic Heroes.* Meco (keyboards); vocal and instrumental accompaniment. *Themes from Superman; The Boy Wonder; The Caped Crusader*; and two others. CASABLANCA NBLP 7136 \$8.98, © NBL8 7136 \$8.98, © NBL5 7136 \$8.98.

Performance: **Disappointing**
Recording: **Super**

I'm afraid Meco is running out of steam. The latest in his series of disco-adaptations offers neither the exhilaration of "Star Wars and Other Funk" nor the freshness of his treatment of Harold Arlen's classic *Wizard of Oz* film score. Of course, John Williams shares the blame; his *Superman* score sounds like leftovers. The main theme and the so-called love song, *Can You Read My Mind* (which is recited on this record with considerably more feeling than it is in the movie itself), are indistinguishable from pieces of *Close Encounters*

(Continued on page 110)

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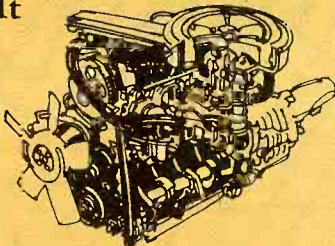
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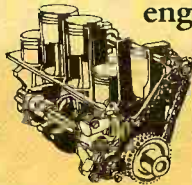
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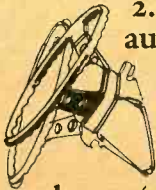
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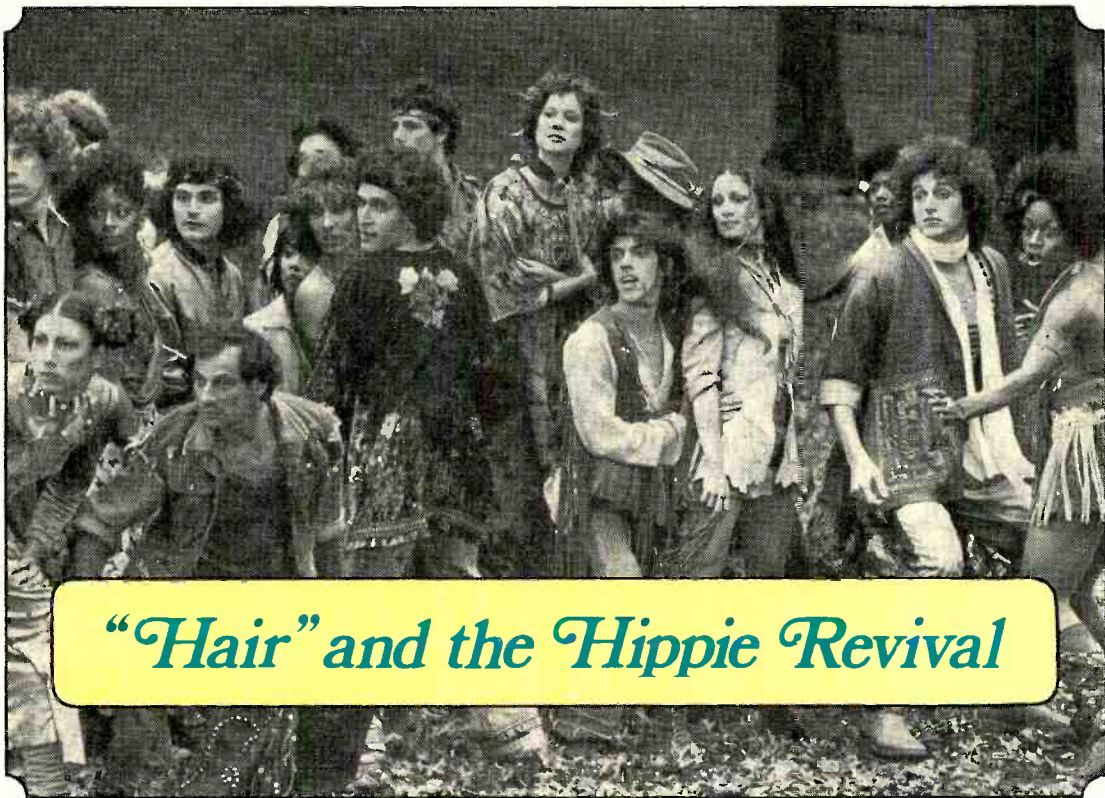
And why not. They're full of engineering and people features like "Twin-Stick," front-wheel drive, and transverse engine.



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United Artists

“Hair” and the Hippie Revival

LET me start by telling you something you’re either too young to remember or old enough to have forgotten: *the Sixties were no fun*.

That’s right, no fun at all. Interesting, certainly, but remember that venerable Chinese curse: may you live in interesting times. Exciting, to be sure, but in the same sense as World War II was. No, the Sixties were not a pleasant period, particularly to grow up in. What you got from your peers, if you were a kid, was mindless sloganeering and psychedelic fascism, while from adults you got contempt and fear. Rather than Peace and Love, the feeling in the air was one of hate and paranoia, and the scary thing was that while the paranoia was partly drug-induced it was also, given the palpable violence one encountered on all sides, quite justifiable. As a character in *Catch-22* accurately observed years earlier, the bastards really were trying to kill us, so to find anyone *nostalgic* for such a depressing and impotent era is simply appalling.

If you want a specific example of just how miserable those years were, I give you, in its original Broadway incarnation, *Hair*. Or rather I give you the ridiculous (though characteristic of the period) overreactions of the many who felt that this banal show-biz compendium of *Time* cover-story hippie clichés actually spoke to them in any fundamental way, who thought (and continue to think) that it represented some kind of high-water mark of the musical stage or that the show was actually a *rock* musical. In point of fact, *Hair* was nothing more or less than a canny bit of commercial cash-in bearing no relationship to life as it was being lived by anyone (the “hippies” were about as realistically drawn as the Fifties juvenile delinquents in the film version of

Grease). Its calculated outrages were designed to come off as “cute” to a middle-class audience desperate for some reassurance that their kids were just being kids, and its music was standard off-Broadway hack work at best, about as rock-and-roll at heart as, say, the tunes in a little revue like *The Fantasticks*. If you doubt, just remember that it was the Fifth Dimension and the Cowsills (gasp!) that got the radio hits with this stuff.

THE movie *Hair*, however, is, to my utter surprise, more than a little bit dangerous, though not because of anything intrinsic in the material. Milos Forman, its director, is a gifted man who harbors a misplaced affection for the supposed artifacts of what used to be called the Counterculture (probably because as a Czech he missed it all firsthand), and he clearly wanted to make this thing work. But since he’s smart, and since he realizes that the buzz words of the Sixties—LSD, Revolution, Vietnam—are the sleeping pills of the Seventies, he has shaped the movie into a romantic, nonspecific fantasy. Instead of being a film about the reality of the Sixties experience (the death of innocence and idealism, which would have been not only depressing but uncommercial as well), *Hair* is merely one in which a lot of cute people wear a lot of funny clothes and sing and dance a lot—just like *Grease*, even down to a brand-new disco song. And so, because he is such a clever man, because his cast is basically talented and attractive (Annie Golden, bless your heart, I forgive you even this), because Twyla Tharp is a gifted choreographer, and because in a Dolby-equipped theater the music sounds so lush you almost forget it’s the same boutique tissue paper you hated the first time around—because of all

that, *Hair* succeeds as Entertainment. It’s no accident that they’re already calling it the *Star Wars* of musical comedies.

And therein lies the danger. There’s a whole new generation out there who feel cheated that they were born too late for the Sixties and will probably go to obscene lengths to experience them at second hand. Which means that if this movie achieves anything like the box-office success of *American Graffiti* (which was relatively honest about its period) and its *Happy Days* spinoffs (which aren’t), then we may be in for a Hippie Revival that will make the recent Fifties Fad look like a low-budget road show, delaying, perhaps terminally, the serious business of doing something about our current political and cultural morass. Nostalgia, not disco, is the drug of our age, and the very last thing we need right now. *Hair* should therefore be boycotted by anyone whose sensibilities are even reasonably well screwed on. That said, I can’t think of a single redeeming thing to say about this two-disc souvenir of the soundtrack.

—Steve Simels

HAIR (MacDermot–Ragni–Rado). Original-soundtrack recording. *Aquarius; Sodomy; Donna/Hashish; Colored Spade; Manchester; Abie Baby/Fourscore; I’m Black/Ain’t Got No; Air; Party Music; My Conviction; I Got Life; Frank Mills; Hair; L.B.J. (Initials); Electric Blues/Old Fashioned Melody; Hare Krishna; Where Do I Go?; Black Boys, White Boys; Walking in Space; Easy to Be Hard; 3-5-0-0; Good Morning Starshine; What a Piece of Work Is Man; Somebody to Love; Don’t Put It Down; The Flesh Failures/Let the Sunshine In.* RCA CBL2-3274 \$13.98, © CBS2-3274 \$10.95, © CBK2-3274 \$10.95.

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and *Star Wars*, with the same old pretentious, movie-epic sound. Aside from the two themes, there are no real melodies to work with, and Meco is left with lots of repetitious bridges to hook things together. The result is uninteresting despite superb engineering that captures every electronic "whoosh."

Side two is devoted to four other super-heroes. Half the side sounds like a military march, and the rest substitutes rain-forest sound effects for musical imagination or indulges in bravura percussion work (eight drummers and five other percussionists are listed on the jacket) to no disco effect whatsoever. Skip Meco this time out. **E.B.**

GIORGIO MORODER: *Battlestar Galactica*. Giorgio Moroder (keyboards); instrumental accompaniment. *Evolution*; *Themes from Battlestar Galactica*. CASABLANCA NBLP 7128 \$8.98, © NBL8 7128 \$8.98, © NBL5 7128 \$8.98.

Performance: **Half super, half bland**
Recording: **Fine**

Giorgio Moroder's name on a disco record jacket sells records. The *Battlestar Galactica* program started the new TV season as the best bet for top ratings. Apparently, someone added up the two and got platinum. But don't be fooled; Moroder himself had little to do with the *Galactica* side of this LP, and it shows. Not that it's bad—it's a perfectly danceable set of arrangements of the principal themes from the TV series—but the music lacks distinction and the arrangements are merely ordinary.

But side two, a single unbroken Moroder composition called *Evolution*, is something else again. The Munich musicians and engineers know how to lay down original, evocative sounds and how to work them into a memorable synthesized tapestry. I warn you that the experience is so fascinating that you might find yourself drifting off into Never-Never land instead of dancing. The disco beat is clearly not Moroder's only concern, and purists might object to the distraction of all the weird sound effects. But *Evolution* is certainly a *musical* trip worth taking. **E.B.**

SISTER SLEDGE: *We Are Family*. Sister Sledge (vocals); instrumental accompaniment. *He's the Greatest Dancer*; *Lost in Music*; *Somebody Loves Me*; *Thinking of You*; and four others. COTILLION SD 5209 \$7.98, © CS 5209 \$7.97, © TP 5209 \$7.97.

Performance: **Better than the songs**
Recording: **Satisfactory**

The four singing sisters named Sledge project an inviting sound that blends high-spirited, hand-clapping funk with lightly teasing seductiveness. In fact, they are so appealing that I would like to hear them tackle something more ambitious than the mindless material that makes up most of this record.

This may be adequate party or disco fare, but it doesn't hold up well for forty minutes of continuous listening. The main flaw is that the major device is repetition. The set gets off to a thunderous start with a thumping trifle, currently the rage on the disco circuit, called *He's the Greatest Dancer* (and he'd have to be

to inject any life into this leaden morsel). *Lost in Music*, the next track, provides no music to get lost in, and the popular *We Are Family* offers eight minutes of monotony from two notes reworked repeatedly.

Once Sister Sledge departs from this tedious pattern, the group's true potential begins to show itself. *You're a Friend to Me*, with its tiny trace of blues intonations, permits a bit more latitude and they use it to cut loose with a few moments of vocal excitement. It's to the group's credit that they can show any quality at all with this sleazy material. **P.G.**

TAVARES: *Madam Butterfly*. Tavares (vocals); instrumental accompaniment. *Never Had a Love Like This Before*; *My Love Calls*; *Positive Forces*; *Madam Butterfly*; and five others. CAPITOL SW-11874 \$7.98, © 8XW-11874 \$7.98, © 4XW-11874 \$7.98.

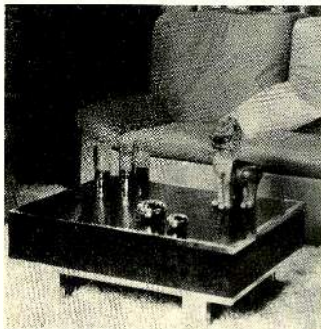
Performance: **Uninspired soul**
Recording: **Good**

Tavares has never been a purely disco group, but their by-now-classic *Don't Take Away the Music* suggested an affinity for the sound. With this album, the five brothers drift further away from disco and back into a more traditional soul style. There are some nice moments here: *Games, Games*, for example, is a beautiful performance of a fine new song, and *Let Me Heal the Bruises*, with Tavares' best soloist Perry Lee "Tiny" Tavares singing lead vocal, is very good blues.

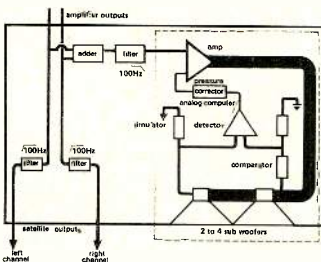
But the title song is a silly exercise in which lyrics, style, and melody (which at times
(Continued on page 112)

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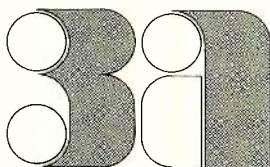
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Disney's Magical Music

THE release of a four-record set of music from Disney films should have been an event, and it *almost* is. There's little doubting the enormous formative influence Disney had on me and my contemporaries; I saw *Fantasia* when I was twelve, and it changed my life. Good or bad, the nonstop images from the Disney factory since then (and before) have affected the way generations of Americans see the world.

Music, of course, has been part of all that. Disney music truly is "magical" music, as the title of this collection puts it. Which means that it is not real, except to the mind of a child, or to that part of our minds that remains forever childlike. It is a shamelessly innocent music, simple, sentimental, and tuneful. And it deserves to be documented in a way that both commemorates it as an historic part of our popular culture and celebrates it as nostalgic listening pleasure. That should have been the event.

So what went wrong? The basic idea is fine. *The Magical Music of Walt Disney* is arranged chronologically, from *Steamboat Willie's Turkey in the Straw* (1928), the first time sound and music were synchronized with animated movement, to songs from *Pete's Dragon* (1977). All the music is lifted directly from the soundtracks, which is as it should be. And some attempt is made to re-create the experience of the full-length features—*Bambi*, *Snow White*, *Cinderella*, and *Pinocchio*—with dialogue bridges. Finally, a truly beautiful forty-eight-page booklet reproduces dozens of stills in (magical) color and contains lots of little-known facts about the Disney composers and lyricists.

What's wrong are two things, one aesthetic, the other commercial. The aesthetic problem is that far too much material is included from the early Mickey Mouse shorts of the Thirties. *Maple Leaf Rag* and *Runnin' Wild* (a piece of the *William Tell* Overture) may be fun to watch, but not to listen to. Sonically, the "Silly Symphony" stuff is rather primitive; musically it's obvious and, well, silly.

More important, the inclusion of this material leaves less room for original Disney music from later films. Where's *Johnny Fedora*, for example, and *Two Silhouettes*, both Forties classics? Why such a rush through *Bambi* that the title song is omitted altogether and the delightful *Little April Shower* truncated? Why none of the words to *I'm the Reluctant Dragon*? And, worse and worse, *why not a single note from Alice in Wonderland*?

The project's second disappointment is a manifestation of the kind of crass (Walt was never crass) commercialization that has overtaken the Disney organization since the founder's death in 1966. There's no reason, other than to sell tickets, for including *The Battle Hymn of the Republic*, *Yankee Doodle*, or *America the Beautiful* as heard at the Florida and California Magic Kingdoms. Not in a record album subtitled "50 years of original motion picture sound tracks."

WELL, *almost* an event is certainly better than no event at all. A great deal of this music is otherwise unavailable, except as background on kiddie records more concerned with narrating the stories. Though it comes out a bit rushed in this release, it is nonetheless magical music and it is wonderful to have it made accessible. —Edward Buxbaum

THE MAGICAL WORLD OF DISNEY. Musical selections from the original soundtracks of: *Steamboat Willie*; *Mickey Mouse cartoons*; *Three Little Pigs*; *Snow White and the Seven Dwarfs*; *Fantasia*; *Pinocchio*; *Dumbo*; *Bambi*; *The Reluctant Dragon*; *Saludos Amigos*; *The Three Caballeros*; *Make Mine Music*; *Fun and Fancy Free*; *Melody Time*; *Song of the South*; *Cinderella*; *Peter Pan*; *Lady and the Tramp*; *Sleeping Beauty*; *The Vanishing Prairie*; *One Hundred and One Dalmatians*; *Sword in the Stone*; *Winnie the Pooh and the Honey Tree*; *Jungle Book*; *Robin Hood*; *The Rescuers*; *Mary Poppins*; *Pete's Dragon*. Music from Disneyland and Walt Disney World. OVATION OV-5000 four discs \$25.

veers dangerously close to *Tangerine*) are all at odds. *Never Had a Love Like This Before* is a slow, repetitious ballad that goes nowhere. And the up-tempo disco-inflected numbers—*One Telephone Call Away*, *Straight from Your Heart*, and *I'm Back for More* are only marginally better. Every arrangement is drudgingly four-square, sounding as if the music were designed to support the "step-step-point" choreography that live performances seem to require these days, especially of soul groups. Then, too, everything sounds like exit music, the stuff they play when a group is marching off the stage. I (for one) wish Tavares would march off this mainstream soul stage and come back to disco. E.B.

RECORDING OF SPECIAL MERIT

ULTIMATE. Ultimate (vocals); instrumental accompaniment. *Medley—Love Is the Ultimate/Touch Me Baby/Dancing in the Night; Ritmo de Brazil*; and two others. CASABLANCA NBLP 7128 \$8.98, © NBL8 7128 \$8.98, © NBL5 7128 \$8.98.

Performance: **Beautiful**

Recording: **Lush and lovely**

Part of disco's phenomenal success can be credited to producers who recognized that, within the basic beat, there is room for variety. Not all disco music need be manic or assertive, spacy or serious. It can be witty, or like Ultimate's, it can be gentle and romantic. To begin with, Ultimate's voices are all female, which immediately establishes a soft sound, and the arrangements center on a large string section and avoid electronic embellishment. The tempo is definitely up, but it's light-hearted, and the strings swirl around you. This is a beautifully conceived dance album.

Things start slowly, with the sensuous voices dancing through a medley of *Love Is the Ultimate*, *Touch Me, Baby*, and *Dancing in the Night*. Then the lushness builds to a slightly harder sound that peaks with the album's penultimate cut, *MUSIC IN MY HEART*. This is my favorite song here, and one reason it's so good is that it makes such an effective climax for everything that precedes it on the record. To get the full flavor of Ultimate, you really need to listen to the album straight through. You'll have fun, I promise. E.B.

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- **DOOBIE BROTHERS:** *What a Fool Believes*. RFC WB 8725 disco disc \$3.98. The latest, and in my opinion the best, example of rock/disco fusion. A Jim Burgess mix.
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- **SKYY.** SALSOL SA 8517 \$7.98, © S8 8517 \$7.98, © SC 8517 \$7.98.
- **THEO VANESS:** *Bad, Bad Boy*. PRELUDE PRL 12165 \$7.98, © PRL8 12165 \$7.98, © PRL9 12165 \$7.98.
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(List compiled by John Harrison.)

(Continued on page 114)

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RECORDING OF SPECIAL MERIT

PEPPER ADAMS: *Refectory*. Pepper Adams (baritone saxophone); Roland Hanna (piano); George Mraz (bass); Billy Hart (drums). *Sophisticated Lady; Claudette's Way; Etude Diabolique*; and three others. MUSE MR 5182 \$6.98.

Performance: **Peppery**
Recording: **Good**

It's been twenty-four years since Pepper Adams began to attract attention as a member of Stan Kenton's band; since then, Adams has had close and fruitful associations with trumpeter Donald Byrd, renaissance man David Amram, and, for more than a decade, the Thad Jones/Mel Lewis Orchestra. The competition is admittedly not strong—there has never been more than a handful of baritone saxophonists in jazz—but Pepper Adams is not just one of the best baritone saxophonists around; he is an outstanding musician measured against any instrumental group. Gerry Mulligan usually gets top honors when the baritone is discussed, but I have always felt that, given the same promotional backing, Adams would be right up there with his colleague. Both are equally skilled, the difference between them being a stylistic one: Mulligan's approach is cool, Adams' is hot.

"Refectory," recorded last summer, is the first new Pepper Adams album I have seen in several years. It is a quartet date with pianist Roland Hanna, bassist George Mraz, and drummer Billy Hart forming a superb section that bubbles vivaciously under a hot, lucid Pepper. All six tracks are crammed with worthwhile collaborations and an infectious spirit that makes the set's one or two squeaks seem like mere specks of dust on an otherwise sparkling surface. Pepper Adams should be recorded again, and often. C.A.

RECORDING OF SPECIAL MERIT

JOANNE BRACKEEN: *Tring-a-Ling*. Joanne Brackeen (piano); Mike Brecker (tenor saxophone); Cecil McBee, Clint Houston (bass); Billy Hart (drums). *Echoes; Haiti-B; Fi-Fi's Rock*; and three others. CHOICE CRS 1016 \$6.98.

Performance: **Free-spirited**
Recording: **Good**

Joanne Brackeen has been active on the jazz scene for some twenty of her forty-one years. Teddy Edwards, Dexter Gordon, Woody Shaw, Art Blakey, and Stan Getz are among the leaders she has worked with during those years, but the time has come for her to take the reins. "I was supposed to be the leader, but I like groups of people where there isn't a leader," she says in connection with her new album. "With the record we didn't have any-

thing set up as to who was to play first. . . . We didn't have to say anything, we just did it."

"Tring-a-Ling" consists of three trio tracks with drummer Billy Hart and bassist Clint Houston and three selections by a quartet with Hart, tenor saxophonist Mike Brecker, and bassist Cecil McBee. The compositions are all by Ms. Brackeen, and they reflect—as does her playing—a fertile, sophisticated musical mind.

Since Clint Houston and Billy Hart were Joanne Brackeen's co-sidemen (sidepersons?) in the Stan Getz Quartet, their cohesiveness on *Echoes*, *Fi-Fi's Rock*, and *New True Illusions* comes as no surprise. But I suspect many listeners will be astonished by the fluent, forceful playing of Mike Brecker, a man better known for the slick, played-to-order work that has made him one of the most sought-after session musicians around. As Ms. Brackeen herself admits, this is not a "perfect" album, but it comes so close that pointing out its flaws would amount to nit-picking. There is an attractive casualness about the set too, and I think you will agree—after hearing it—that, effective as she was with Stan Getz, Joanne Brackeen's considerable talent has been largely underplayed up to now. C.A.

RECORDING OF SPECIAL MERIT

PETER DEAN: *Only Time Will Tell*. Peter Dean (vocals); vocal and instrumental accompaniment. *Only Time Will Tell; Rhythm Is Our Business; I Want a Little Girl; Help That Man Up the Road; Baby, Baby, Baby; As Long as I Live*; and six others. INNER CITY IC 4002 \$7.98.

Performance: **Captivating**
Recording: **Very good**

Peter "Snake Hips" Dean is a delightful reactionary. He resolutely refuses to be baffled or dismayed by the neuroses of much of current pop music or the social behavior that attends (or provokes) them. He is unabashedly sentimental and generous, shamelessly out for a good time. And he takes a boyish, prankish delight in jazz as a syncopated, friendly music meant to be enjoyed by ordinary people instead of fanatics and seers.

Although Dean began his long career as a performer, he has spent most of it as a manager (for Paul Whiteman, Johnny Nash, Dinah Shore, and Peggy Lee, among others), only recently returning to singing. His selection of material is dead sure—mostly the songs that made him happy when he was a kid in the Thirties, such as *I Want a Little Girl*, *Glad Rag Doll*, *True Blue Lou*, *Slow Boat to China*, and *As Long as I Live*, all fine tunes that have been almost lost. His own songs—*Help That Man Up the Road* and *Baby, Baby, Baby*—are sturdy and appealing, and his teasing vocals are charming.

Dean is backed here by a socko-boffo group, including Dick Hyman, a keyboard master who recalls Teddy Wilson, Erroll Garner, and the New York "stride" school of James P. Johnson; bassist Bob Haggart, whom I'm sure Ron Carter has listened to and learned from; Lucy Simon, who's Peter Dean's niece as well as Carly's sister, on one vocal; and young guitarist Mike Peters, who's co-captain of Jazz à Cordes, a reincarnation of Django Reinhardt's Quintet of the Hot

(Continued on page 118)

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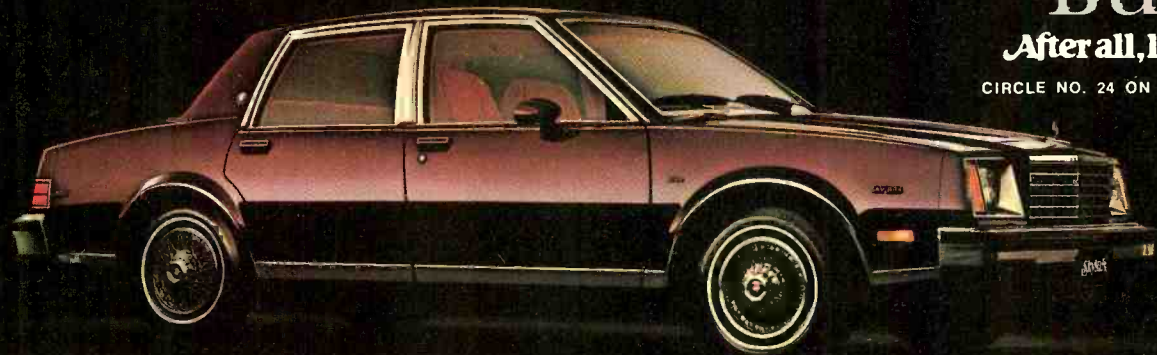
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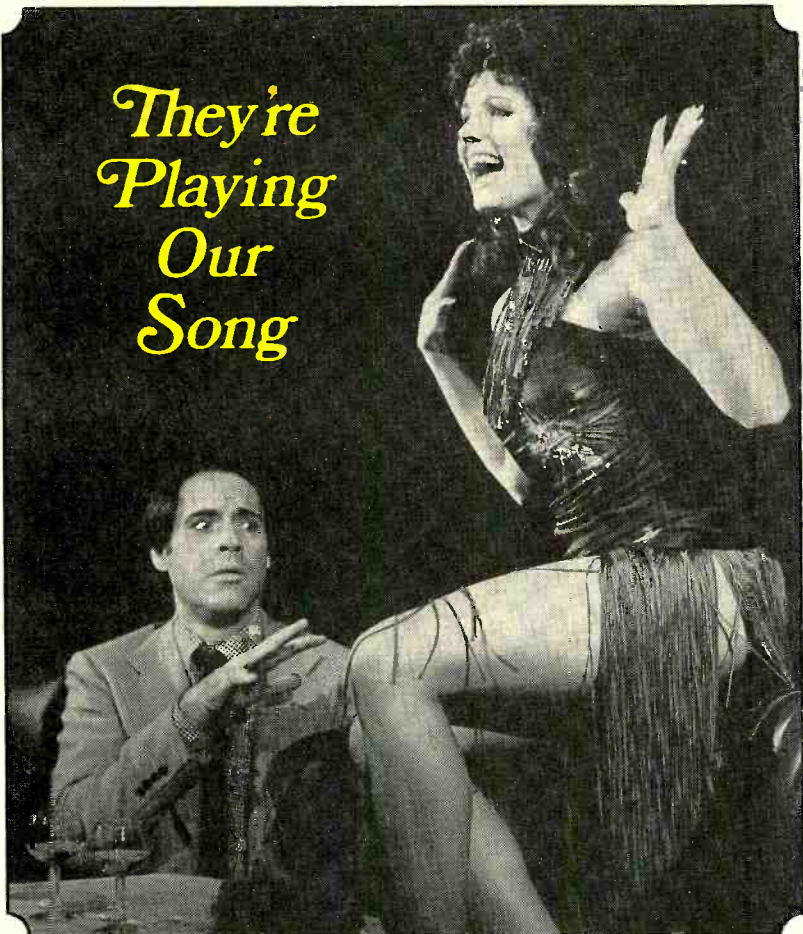
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They're Playing Our Song



Bill Evans

Alarming view: Robert Klein and Lucie Arnaz

MOST extravagantly hyped show-biz "events" arouse absolutely no hopeful expectations in me, be it a *Supertrain* debut on TV, a "dynamite" personality-pairing on the screen (Tomlin and Travolta), or yet another Muhammed Ali rematch, so I took and maintained a flinty, squinty view of the impending arrival on Broadway of *They're Playing Our Song*. Before its opening the cloud of publicity surrounding this new musical (book by Neil Simon, music and lyrics by Marvin Hamlisch and Carole Bayer Sager, starring Robert Klein and Lucie Arnaz) was thick enough to float a pride of press agents and pervasive enough to trigger my reject button. The almost unanimous raves it drew from the critics only deepened my gloomy bias (Neil Simon could rewrite *Mourning Becomes Electra* as another of his delicatessen comedies and that crew would fall into a swoon of appreciation).

But enter the original-cast recording of *They're Playing Our Song* on Casablanca. And exit my smart-ass ability to predict the smell of a perfume merely by reading its label. For, instead of the kitschy centerpiece of scentless plastic flowers I had expected, I was confronted with a lovely, deceptively simple, late-spring bouquet of songs by Hamlisch and Sager, unobtrusively wired together by master-florist Neil Simon with a book that displays each bloom at its most spectacular. The bouquet is tossed back and forth, with reflex-

ive ease and lithe charm, by Robert Klein and Lucie Arnaz, two recently young performers now just old enough to give their roles a little personal style (his is closest to a de-electrified Danny Kaye, hers to an Ethel Merman who has yet to face the armed combat of a sale at Korvette's).

They're Playing Our Song is a "small" show in the sense that Klein and Arnaz, each with three back-up vocalists representing their alter egos, sing the entire score—which doesn't have a single conventional "production number" anywhere in it! The plot from which the songs so effortlessly spring is about as cosmic in its implications as the story of your average screwed-up young couple, alternately pawing and clawing at each other and wondering how in God's name they ever found each other (and how much longer it can last). The funny, touching, and, yes, downright romantic answer is spelled out in the character of Vernon Gersch, the archetypal show-biz neurotic (hugely successful in his field—he's a pop-music composer—but pitifully skinless whenever exposed to the chill draft of any gut emotions) and his up-and-down, in-and-out, zig-and-zag affair with Sonia Walsk, who is an equally successful lyric writer.

On the surface, Sonia seems less a mess than Vernon, but she too is a wobbly bundle of insecurity, and when she comes into Vernon's life to work with him professionally,

she arrives trailing all the loose strings usually attached to the kind of girl who does unlicensed social work on the side. She's attracted by, perhaps in love with, her new collaborator, but she's still working on Leon's case, Leon being one of those needy souls who could probably do something with their lives if the telephone had never been invented. But since it has, he never misses an opportunity to use it to turn his women into Big Mama Jungfreuds, doing what he can to make sure they never get a chance to lead lives of their own. The scene shifts geographically around the glitter circuit of Manhattan, Quogue (on fashionable Long Island), and Hollywood as the all-too-articulate Vernon and Sonia (plus, of course, the ever-present though offstage Leon) put themselves through the punishing paces of "commitment."

SUPPOSEDLY based on the real-life story of Marvin Hamlisch and Carole Bayer Sager, the show has a wise, bittersweet quality and a very contemporary feeling. Hamlisch's music is as uniformly hip, glossy, and stylish as those slightly overdressed couples who shop Saturdays at Bloomingdale's (very often she's carrying the packages), and Sager's lyrics (it was an excellent idea to print them complete on the inner sleeve, a practice all original-cast recordings might follow) have a wonderfully sharp tang.

Sager's not afraid of the kind of goofy sentimentality that *If He Really Knew Me* calls for, the sweaty-palmed earnestness of *Fallin'*, or the perhaps show-off trickiness of *Workin' It Out*. But it is when she seems to be working out of her own sensibility, rather than that of the stage characters, as in *Right* and *They're Playing My Song* (in His and Hers versions), that she produces sheer joy. *Right* is both a quiet, lovely ballad by Sonia and a funny, caustic comment on it by her three less-than-impressed alter egos. Later it blends into a hope-filled, blue-skies love duet between Vernon and Sonia. The show-stopper is (are) the twin versions of *They're Playing My Song*, in which love's labours have to work overtime to satisfy two insatiable egos each claiming their due.

THE album was produced and recorded on the West Coast (something of a switch for a Broadway show) by Brooks Arthur, Sager, and Hamlisch. As a result it has a much more intimate, "pop"-style sound than one is used to in musicals, but it suits the material perfectly. Robert Klein makes Vernon . . . well, Vernon; very real and very funny. Lucie Arnaz makes Sonia a girl it's no wonder Leon doesn't want to lose and whom you hope Vernon will never be damned fool enough to. *They're Playing Our Song* isn't one of those mow-'em-down audio free-for-alls, but it is a fresh, happy, enormously professional show that seems more attractive each time one listens to it—which I suggest you do as soon as you can.

—Peter Reilly

THEY'RE PLAYING OUR SONG (Marvin Hamlisch—Carole Bayer Sager). Original-cast recording. Robert Klein, Lucie Arnaz, others (vocals); orchestra, Larry Blank cond. CASABLANCA NBLP 7141 \$8.98, © NBL8 7141 \$8.98, © NBL5 7141 \$8.98.

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Club of France. It's good for a change to hear someone indulging in adult musical behavior. Peter Dean seems to have had a fine time on this busman's holiday, and so should his listeners. I know I did. J.V.

RECORDING OF SPECIAL MERIT

ROLAND HANNA: Sir Elf Plus 1. Roland Hanna (piano); George Mraz (bass). *Yesterdays*; *My Heart Stood Still*; *Majorca*; *Where's That Rainbow*; and three others. CHOICE CRS 1018 \$7.98.

Performance: **Gratifying**
Recording: **Good**

I try my best not to listen to imported Polish pianist Adam Makowicz, but there have been two or three times when it was unavoidable and on each of those painful occasions Roland Hanna crossed my mind. Don't misunderstand me. I am not saying that Hanna's playing reminds me of Makowicz's—they have only the instrument (and, perhaps, a fondness for Tatum) in common—but Hanna is one of several American pianists the neglect of whose talent makes the promulgation and touting of the Pole's lackluster, frigid playing seem like a cruel joke.

On this, his second Choice album (the first, CRS 1003, was released in 1973), Hanna is joined by bassist George Mraz, who also is a member of the New York Jazz Quartet, a group Hanna has led since the mid-Seventies. The impressive opening track, the 1933 ballad *Yesterdays*, was recorded unaccompanied in the summer of 1974 while the remaining six tracks were done three years later. Actually, the entire album is impressive, but—perhaps because it was not originally meant for release—*Yesterdays* has Hanna sounding freer as he embroiders Jerome Kern's pretty melody with wonderfully imaginative patterns that lean more toward Art Tatum than does his work on the rest of the album.

As one might expect, Hanna (*Sir Roland* since Liberian President Tubman knighted him ten years ago) and Mraz work together splendidly, and my enthusiasm for *Yesterdays* should merely be taken as praise for the magnificent icing on a perfect cake. Taste, skill, and imagination are the ingredients of this cake, and it will be just as good in years to come—if not even better. C.A.

RECORDING OF SPECIAL MERIT

LEE KONITZ: Tenorlee. Lee Konitz (tenor saxophone); Jimmy Rowles (piano); Michael Moore (bass). *I Remember You*; *Lady Be Good*; *Autumn Nocturne*; *Skylark*; *Tangerine*; and four others. CHOICE CRS 1019 \$6.98.

Performance: **Delightful**
Recording: **Good**

If this album had nothing else going for it, Jimmy Rowles' solo on *I Remember You* would justify its purchase. But I am happy to report that "Tenorlee" has exactly forty minutes and four seconds of extremely lyrical, softly swinging music that's lovingly performed to its advantage (and yours). Recorded in the winter and summer of 1977, the album consists mostly of two-way conversations between Lee Konitz's tenor and Rowles' piano, with bassist Michael Moore joining in on three occasions. Konitz and Rowles are among the most tasteful and sensitive musicians around, and their stroll through

a program of familiar vintage material is a pure delight for anyone who likes music that is pretty, yet has substance. C.A.

JACKIE McLEAN: Hipnosis. Jackie McLean (alto saxophone); Kenny Dorham (trumpet); Grachan Moncur (trombone); Billy Higgins (drums); other musicians; *The Three Minors*; *Marilyn's Dilemma*; *Slow Poke*; *The Reason Why*; *Iddy Bitty*; *Back Home*; and five others. BLUE NOTE BN-LA483-J2 two discs \$9.98.

Performance: **Two interesting vintage**
Recording: **Good**

RECORDING OF SPECIAL MERIT

JACKIE McLEAN: New Wine in Old Bottles. Jackie McLean (alto saxophone); Hank Jones (piano); Ron Carter (bass); Tony Williams (drums). *Confirmation*; *Bein' Green*; *It Never Entered My Mind*; *Little Melonae Again*; and two others. INNER CITY IC 6029 \$7.98.

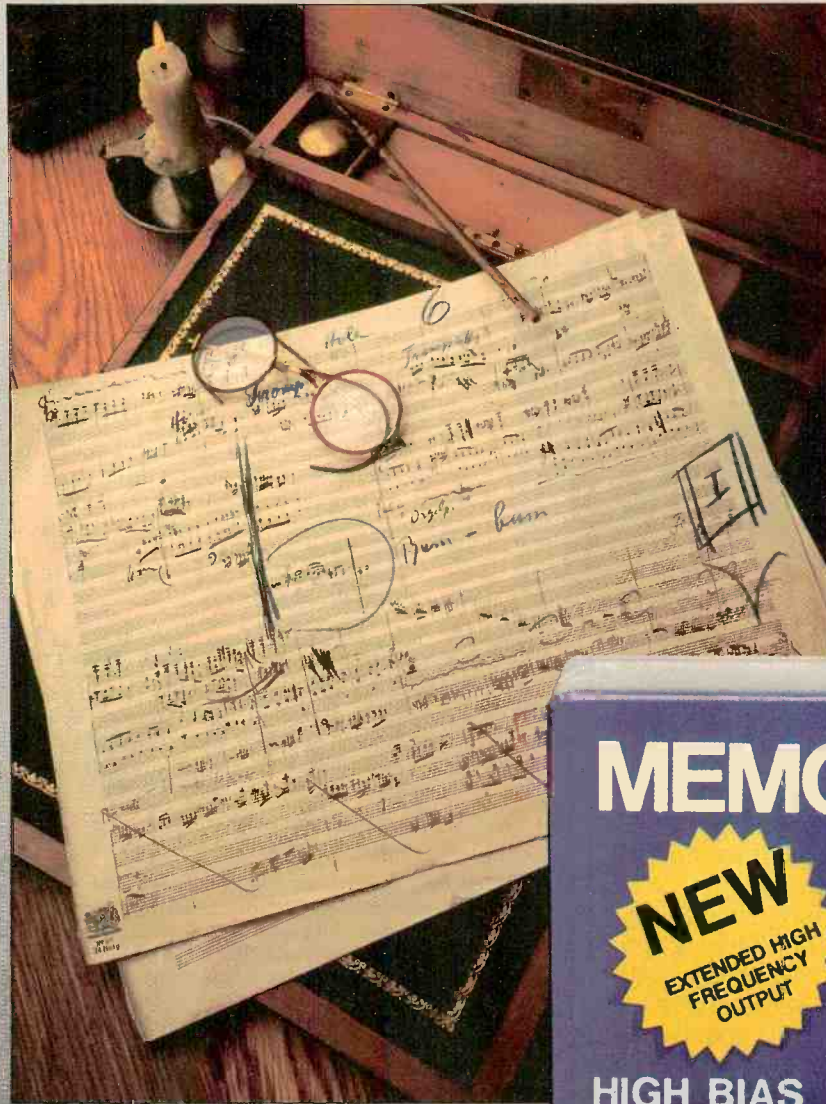
Performance: **Superb**
Recording: **Very good**

When nineteen-year-old Jackie McLean made his recording debut on a 1951 Miles Davis date, he was already well-known in the inner circle of bop. In fact, at that tender age he could already look back on musical experiences most jazz musicians only dream of: since first taking up the alto saxophone, at the age of fifteen, he had studied and played with Bud Powell, given public performances with Charlie Parker and Thelonious Monk, and had Miles Davis select him for a record date that included Sonny Rollins (with whom McLean had attended Harlem's Benjamin Franklin High School), Walter Bishop, Tommy Potter, and Art Blakey. (Incidentally, that session, part of which was attended by Charlie Parker, became an album entitled "Dig," Prestige 7012.)

The maturity of McLean's playing belied his age on the 1951 recordings, but his solos lacked the fluency of his later work, a fluency that is very much in evidence on sides one and two of "Hipnosis," a double album of 1962 and 1967 McLean recordings for Blue Note recently issued for the first time. The 1962 session features a quintet with trumpeter Kenny Dorham and pianist Sonny Clark. It's a fairly straightforward blowing date with McLean's alto speaking in the tenor tongue that came to characterize his style and with some fine work by pianist Clark and the rest of the rhythm section—drummer Billy Higgins and bassist Butch Warren—but very uneven performances by Dorham. The set's second disc represents a greater jump stylistically than it does chronologically; during the five intervening years, Jackie McLean had thrown bebop traditions to the wind and gravitated toward the day's avant-garde style. He associated with such young players as Tony Williams, Bobby Hutcherson, and Grachan Moncur III, men whose ideas took them out of bebop into the future, yet who remained sufficiently coherent to keep their music above ground. Moncur is represented, in the 1967 quintet on sides three and four, as both player and composer (*Hipnosis*, *Back Home*). This is the middle of the Sixties' modern jazz road, a new wave in an old ocean. Just why it took twelve years to release the session is hard to understand. Producer Michael Cuscuna has developed a reputation for indiscriminate scavenging of recorded jazz materi-

(Continued on page 120)

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al, but the McLean sessions—said to be the last of the saxophonist's unissued Blue Note tapes—actually do merit release.

Much as I enjoyed the unearthed 1962 and 1967 material, it does not measure up to the 1978 sessions that make up a new Inner City release entitled "New Wine in Old Bottles." Here, with brilliant support from Hank Jones, Ron Carter, and Tony Williams, the current Jackie McLean shines as bright as ever. If you read what I had to say this past March about a previous Inner City release, "The Great Jazz Trio at the Village Vanguard" (IC 6013), you already know how I feel about Messrs. Jones, Carter, and Williams as a team. They work as well with McLean as they do with each other, so well that I hope we

hear more from this quartet. Again, the sessions were organized by the Japanese East Wind label and licensed by Inner City for the U.S., which is a lot like selling coffee to Columbia (Colombian coffee, that is). Could it be that jazz is becoming a major import in this country? C.A.

RETURN TO FOREVER: *Live*. Chick Corea (keyboards, Mini-Moog, various electronic instruments); Stanley Clarke (vocals, bass); Gayle Moran (vocals, keyboards); Joe Farrell (tenor and soprano saxophones, flute, piccolo); John Thomas, John Tinsley (trumpet, flugelhorn); other musicians. *So Long Mickey Mouse*; *The Musician*; *Musicmagic*; *The Moorish Warrior and Spanish Princess*; and

three others. COLUMBIA JC 35281 \$7.98, Ⓞ JCA 35281 \$7.98, Ⓞ JCT 35281 \$7.98.

Performance: **Well-fused**
Recording: **Very good**

Whatever jazz-rock fusion music might be, Return to Forever, one of the leading exponents of this mode, points up many of the strengths and weaknesses that have befuddled those of us who recall such performers as Chick Corea and Herbie Hancock from their earlier, pre-crossover incarnations. Something special often shines through on this set dominated by Corea's creativity and rhythmically rich Hispanic background, yet arbitrary limitations are imposed, restricting improvisation. Just when something important seems about to happen, the big moment is suddenly called off and a trite riff is substituted. Snatches of brilliance give way to predictable passages. And throughout, the horns never seem to have much of interest to say.

There is still much to recommend this live album. Corea and Stanley Clarke, the group's two major forces, set a vigorous pace that seldom flags. Among the truly outstanding moments are Chick's *Piano Solo*, which bristles with an excitement and musical daring not often found, and Clarke's *The Moorish Warrior and Spanish Princess*, an impressionistic tone poem of no small beauty. The only real clincher is Gayle Moran's vocal solo on *Come Rain or Come Shine*, a standard ballad that doesn't fit this context and sounds even more out of place as she wobbles about searching for the right notes without finding them. Nonetheless, this is one of the better sets produced lately by the fusion folks. P.G.

RECORDING OF SPECIAL MERIT

JOE TURNER: *Effervescent*. Joe Turner (piano, vocals); Panama Francis (drums). *Echoes of Spring*; *Ain't She Sweet*; *Lazy River*; *Saint Louis Blues*; *I Wanna Be Around*; and nine others. CLASSIC JAZZ CJ 138 \$7.98.

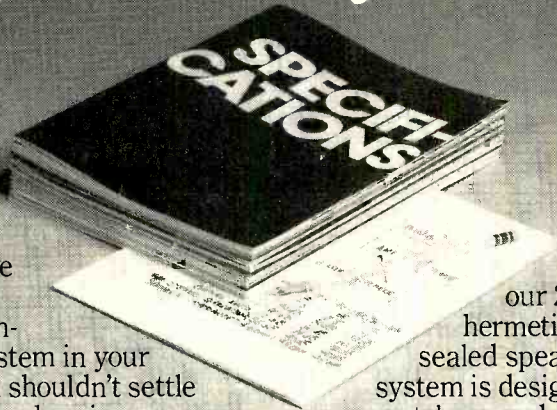
Performance: **Masterly**
Recording: **Excellent**

Pianist Joe Turner (not to be confused with the bluesman of the same name from the Fifties) has been an expatriate, domiciled in Paris, since before World War II. Before then he worked with most of the jazz lights in Harlem, particularly the "stride" school of pianists including Fats Waller, James P. Johnson, and Willie "The Lion" Smith. When Turner returned to the United States in 1976 for a brief engagement he was hailed as the last survivor of the original "stride" brigade. Now in his seventies, Turner remains a fluent and intriguing pianist with an enormous repertoire and a zest for playing that hasn't been dulled by having to hit the keys every night to earn a living.

"Effervescent," cut in France in 1976, is titled after a Fats Waller piece, which Turner plays with the combination of bravado and delicacy that Waller tunes require. He is equally true to the tenderness of Willie "The Lion" Smith's *Echoes of Spring*, and he treats *Body and Soul* with a dramatic flair that works—tasteful pianists like Turner know how far to take a melody without rupturing it or loading it down with bombast. In fact, there isn't a single melody on this album that isn't treated with the respect it deserves. J.V.

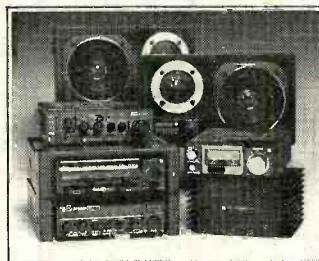
(Continued on page 122)

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CLASSICAL DISCS AND TAPES

Reviewed by RICHARD FREED • DAVID HALL • GEORGE JELLINEK • PAUL KRESH
STODDARD LINCOLN • ERIC SALZMAN

RECORDING OF SPECIAL MERIT

AMRAM: *Triple Concerto for Woodwind, Brass, and Jazz Quintets and Orchestra*. David Amram Jazz Quintet; Rochester Symphony Orchestra, David Zinman cond. *Elegy for Violin and Orchestra*. Howard Weiss (violin); Rochester Symphony Orchestra, David Zinman cond. FLYING FISH GRO-751 \$7.98.

Performance: **Excellent**
Recording: **A bit studio-ish**

David Amram is a one-man cross-cultural musical movement. Beaten around by the critics and not taken seriously by the culture snobs, he is nevertheless one of the most-performed and best-known American composers. He belongs nowhere and everywhere—that is his weakness and his strength. He bucks every tide, says what he feels, does what he wants. He plays (many instruments), conducts, organizes, writes, and, above all, composes—so far more than a hundred works in just about every possible medium and style.

Amram is best thought of as a jazz musician who has transposed the materials of jazz into the symphonic realm. This is, of course, the Gershwin tradition, and the synthesis has often been attempted since, rarely successfully. But that is only one of Amram's starting points. The *Triple Concerto*—originally commissioned by the American Symphony Orchestra in 1971—uses three solo quintets (two

from the orchestral wind sections plus a jazz ensemble) as well as a big orchestra (including six percussionists), all playing in a stylistic mixture that includes not only blues, gospel, and jazz but also Latin, Middle Eastern, and European classical influences.

On the other hand, the *Elegy*, also from 1971, is a folksy rather than jazzy work with Eastern as well as Anglo-Celtic sources. Amram does not permit himself to be pinned down very easily. In essence he has developed a notion about the essential unity of popular and ethnic styles and has attempted, with a nod here and a bow there, to integrate them into a slightly old-fashioned classical-music concert style. There is no question that it all oozes musicality. The works are flowing and full of good feeling, with an appeal that is at times almost wistful. The performances here are excellent; the *Triple Concerto* really cooks in a way that is rarely achieved in classical/jazz collaborations. The close miking has produced a kind of studio sound for the soloists that does not always seem to blend ideally with that of the orchestra—the concerto is clearly not an easy recording project—but otherwise the recording is good. E.S.

RECORDING OF SPECIAL MERIT

J. S. BACH: *Tocatta and Fugue in D Minor (BWV 565); Partita No. 1, in B-flat Major (BWV 825); Italian Concerto (BWV 971); French Suite No. 5, in G Major (BWV 817)*. Constance Keene (piano). LAUREL-PROTONE LP-16 \$7.98.

Performance: **Brilliant**
Recording: **Shower-stall stereo**

When I put this on, I thought I must be listening to an item from some Great Golden Age of Piano Recordings reissue series. Constance Keene used to be a major presence on the pianistic scene—a powerful pianist with impeccable fingers and a lot of dash. Of course, this kind of Bach-on-the-piano tradition is old-fashioned, and the Early Shower-stall piano sound suggests antiquated engineering standards. But, appearances to the contrary, this is a recent recording; indeed, it is part of a series

of Miss Keene's solo recordings made and issued in Los Angeles. And, whatever the sound, the playing is fabulous: Bach in the Busoni tradition—late-Romantic if you like, but really neo-Classic and very powerful. This kind of Bach, although not very conformable to our current notions of Baroque style, is really quite timeless. The phrasing, the articulation, the contrapuntal clarity! The ugly piano sound is a formidable obstacle, but believe me—the playing makes it all worthwhile. E.S.

BARRIOS: *Guitar Works* (see *Best of the Month*, page 82)

BEETHOVEN: *Piano Concerto No. 5, in E-flat Major, Op. 73 ("Emperor")*. Walter Gieseking (piano); Berlin Reichsender Orchestra, Artur Rother cond. VARÈSE SARABANDE VC 81080 \$7.98.

Performance: **Powerful**
Recording: **1944 stereo?**

This is a remarkable musical-sonic artifact. Since the basic tape-recording technology had been mastered in Germany even before the outbreak of World War II, it is more than possible that stereophonic recording had been tried there prior to the early 1950's tape work in the U.S. and Britain (though the jacket notes here are not altogether precise as to the provenance and conditions of this particular recording). More important is that the fabled Walter Gieseking is indeed in top form here, and with excellent collaboration from Artur Rother he delivers a reading of the *Emperor* comparable in power and brilliance to his classic 1938 one with Bruno Walter and the Vienna Philharmonic (now on Turnabout). As for the recording as such, the stereo localization is fairly minimal, but there is some depth perspective. This suggests, to my ear at least, that a Blumlein-style technique employing two closely spaced microphones may have been used. (It's hard to tell since the recording locale was apparently highly reverberant.) The orchestral strings and, to some extent, the piano tone betray what has been described as the "Magnetophon" sound: a somewhat

Explanation of symbols:

- Ⓜ = reel-to-reel stereo tape
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The first listing is the one reviewed; other formats, if available, follow it.

hard, glassy texture. But even this cannot detract from the musical strength of the performance as a whole. No piano buff or Gieseeking fan should be without this fascinating and really remarkable document. *D.H.*

RECORDING OF SPECIAL MERIT

BIZET: *Carmen*. Teresa Berganza (mezzo-soprano), Carmen; Plácido Domingo (tenor), Don José; Sherrill Milnes (baritone), Escamillo; Ileana Cotrubas (soprano), Micaela; Yvonne Kenny (soprano), Frasquita; Alica Nafé (mezzo-soprano); Mercédès; Robert Lloyd (bass), Zuniga; Stuart Harling (baritone), Morales; Gordon Sandison (baritone), Dancairo; Geoffrey Pogson (tenor), Remendado; others. Ambrosian Singers; London Symphony Orchestra, Claudio Abbado cond. DEUTSCHE GRAMMOPHON 2709 083 three discs \$26.94, © 3371 040 \$26.94.

Performance: **Very good**

Recording: **Excellent**

BIZET: *Carmen*. Giulietta Simionato (mezzo-soprano), Carmen; Giuseppe di Stefano (tenor), Don José; Michel Roux (baritone), Escamillo; Rosanna Carteri (soprano), Micaela; Giuseppe Modesti (bass), Zuniga; Enzo Sordello (baritone), Morales; Graziella Sciutti (soprano), Frasquita; Luisa Ribacchi (mezzo-soprano), Mercédès; others. Orchestra and Chorus of La Scala, Milan, Herbert von Karajan cond. TURNABOUT/VOX THS 65160/2 three discs \$14.94.

Performance: **Good**

Recording: **Variable**

Individual preconceptions of what a "perfect" *Carmen* should be vary more than they do with any other opera. We can all easily discern a "bad" *Carmen*, but there are many ways to achieve a "good" one. These two recordings—sharply contrasted in matters of text, interpretive approach, and sound quality—are both "good" *Carmens*.

The Deutsche Grammophon set, in fact, is outstandingly good. It was recorded shortly after the 1977 Edinburgh Festival performances, with the festival cast almost intact: time was not allowed to blunt involvement and dramatic interaction. What we have here is a marvelous combination of theatrical atmosphere and interpretive refinement, with a positively glowing orchestral account under Claudio Abbado's fastidious direction. Dynamic nuances are rendered with admirable fidelity to the score, and the delicate orchestral details exposed in the Seguidilla and the Card Scene will be revelatory to many listeners. There are a few instances where fastidiousness borders on fussiness, particularly in the final act, but on every account I must rate Abbado's conducting superb.

Teresa Berganza has developed her own view of the controversial *Carmen* character (the album booklet contains her thoughtful essay on the subject), and she gives us a *Carmen* who is very seductive in an insinuating, kittenish manner, downright irresistible in such perfectly turned phrases as the reiterated "L'amour" in Act II and "Bel officier" in Act III. Her performance is flawlessly vocalized and peerlessly musical, but it lacks the fierceness I find essential to the character.

Plácido Domingo's José is familiar from the Solti set (London 13115). His is an admirable interpretation without being a truly individual one, and, as on London, the recording fails to



Helmut Walcha: Valedictory

A PERSONAL statement by Helmut Walcha included in his handsome new Archiv set of early German organ music advises the listener that it is the final volume in the long series of recordings that has been the organist's life work. Having recorded the complete works of J. S. Bach twice (once in mono and once in stereo), Walcha felt that he should "glance back into the past" and record a volume of Bach's predecessors. The result is this splendid anthology, which dramatically reveals the rich tradition of organ music that Bach brought to a culmination. The music is simply magnificent, and one is struck over and over again by the rhapsodic imagination of the preludes and the architectural grandeur of the fugues. The choral preludes are full of ingenuity, and the austere structured chaconnes bring us very close to Bach's own concepts.

Perhaps influenced by Albert Schweitzer, Walcha favors a strict and austere style, which he at first advocated in order to get away from the romantic excesses perpetrated by an earlier generation of organists. Although there are moments in some of the preludes where a freer style would be welcome, most of the music, especially the fugues, profits from this approach. The subjects are clearly etched and maintain their integrity as they weave through a maze of countermelodies and pile up on each other in massive strettos. The chorale melodies are never lost, the chaconnes drive to the end, and the harmonic progressions remain lucid throughout the readings despite any amount of figural busy work shot through them. In short, Walcha understands every note of this music and his command of the instrument transmits that understanding to the listener.

The recording was made on the Arp Schnitger organ in Cappel, an instrument (it dates back to 1680) that has undergone much restoration. Although the tuning is in equal temperament, the instrument is still one of the finest Baroque organs in Germany, and Walcha makes full use of its varied timbres in a thrilling underlining of the music's structure.

Besides being one of the most comprehensive collections of early German organ music now available, this album should be treasured as a monument to the art of Helmut Walcha.

—Stoddard Lincoln

HELMUT WALCHA: *The Early German Organ School*. Böhm: *Prelude and Fugue in C Major*. Bruhns: *Prelude and Fugue in G Major; Prelude and Fugue in E Minor*. Buxtehude: *Prelude, Fugue, and Chaconne in C Major (BuxWV 137); Prelude and Fugue in D Major (BuxWV 139); Prelude and Fugue in D Minor (BuxWV 140); Prelude and Fugue in E Major (BuxWV 141); Prelude and Fugue in E Minor (BuxWV 142); Prelude and Fugue in F Major (BuxWV 145); Prelude and Fugue in F-sharp Minor (BuxWV 146); Prelude and Fugue in G Minor (BuxWV 149); Chaconne in C Minor (BuxWV 159); Chaconne in E Minor (BuxWV 160); Passacaglia in D Minor (BuxWV 161)*. Lübeck: *Prelude and Fugue in E Major; Prelude and Fugue in G Minor; Prelude and Fugue in D Minor*. Pachelbel: *Chorale Prelude "O Lamm Gottes, Unschuldig"; Chaconne in F Minor*. Scheidt: *Warum Betriübst Du Dich, Mein Herz; Jesus Christus, Unser Heiland*. Sweelinck: *Fantasia Chromatica*. Tunder: *Chorale Prelude "Komm, Heiliger Geist, Herre Gott."* Helmut Walcha (organ). DEUTSCHE GRAMMOPHON ARCHIV 2712 004 four discs \$35.92.

capture the thrilling quality of his voice as heard in the theater. Sherrill Milnes is a forceful, manly Escamillo, but he is no more comfortable with the role's unreasonable tessitura than are most of his colleagues—except José van Dam (London), who seems to revel in it. Ileana Cotrubas contributes a fragile, touching, but not really exceptional Micaela, and Robert Lloyd a very good Zuniga (with excellent French diction, a quality not otherwise noticeably present in this performance). The Frasquita and Mercédès are fine, the two smugglers competent but not assertive enough. That Stuart Harling's Morales is weak is rather unfortunate since his voice is the first one heard in the opera.

In general, Abbado uses the Oeser edition

of *Carmen*, retaining a great deal of the spoken dialogue, though he wisely follows Solti's example in turning to the Choudens edition whenever the latter provides the more satisfying alternative. I wish he had retained even a bit more of the spoken passages, which are significant in character delineation.

The Turnabout album preserves an actual performance at Milan's La Scala in December 1955. This is the traditional version of *Carmen*, with the nowadays unjustly maligned Guiraud recitatives. The recording captures the raw vitality of an actual performance, with marching and other stage sounds, foot stomping, applause, and all the rest. Karajan's conducting is not without some eccentric touches, and it seems quite imprecise

compared with Abbado's (or with Karajan's own studio work on RCA LSC-6199, for that matter), but it is wisely theatrical. The overall sound ranges from listenable to dismal; this is a set to be avoided by all except connoisseurs who are willing to overlook tonal excellence for the experience of hearing Giulietta Simonato and Giuseppe di Stefano in their prime. They will not be disappointed. Simonato flats on occasion, but she is a torrid and vital Carmen, bursting with fierce pride. Di Stefano, passing instances of self-indulgence aside, is absolutely splendid, possibly the most exciting Don José on records. Michel Roux is a dashing and idiomatic-sounding torero, and Enzo Sordello, then on the brink of turning into a leading baritone, is a first-class Morales. The supporting singers are competent. Do not look for nuances here; the set must be approached with auditory caution, but it is a fascinating souvenir. G.J.

RECORDING OF SPECIAL MERIT

A. BONONCINI: *Stabat Mater*. LOTTI: *Crucifixus*. CALDARA: *Crucifixus*. Felicity Palmer (soprano); Paul Esswood (alto); Philip Langridge (tenor); Christopher Keyte (bass); Choir of St. John's College, Cambridge; Philomusica of London, George Guest cond. ARGO ZRG 850 \$8.98.

Performance: **Ravishing**

Recording: **Ravishing**

Often confused with his older brother Gi-ovanni, who is known primarily as one of Handel's operatic competitors in London, Antonio Bononcini is almost entirely neglected today. Now, for the first time on records, we have a complete, large-scale work of his, for soloists, chorus, and orchestra, and it is quite impressive. The *Stabat Mater*, is, of course, a serious, rather sombre work, but it shows Bononcini as a master of melody, a skilled choral writer, and, surprisingly, a deft contrapuntist. The work sustains interest from beginning to end despite the lugubriousness demanded by its text. The two settings of the *Crucifixus* by Antonio Lotti and Antonio Caldara are also wonderfully effective music.

The performances here are exquisite. The pacing is dignified but never dull, the choral sound is sumptuous, and the instrumentalists play with an expressiveness that blends beautifully with the voices. The soloists are excellent, never once succumbing to the bogus "religious" style that so frequently emasculates performances of this kind of music. Paul Esswood is particularly outstanding; Bononcini's long, legato lines are perfect for his serious style of singing. Although the High Baroque in Italy produced mostly operatic music, the church music of the period is gradually being rediscovered also. This album is a major contribution to that recorded repertoire. S.L.

BRAHMS: *Songs* (see Collections—Marian Anderson)

CAGE: *Music of Changes, Parts III and IV* (see PARTCH)

CALDARA: *Crucifixus* (see A. BONONCINI)

DONIZETTI: *Don Pasquale*. Beverly Sills (soprano), Norina; Donald Gramm (bass), Don Pasquale; Alan Titus (baritone), Dr. Malatesta; Alfredo Kraus (tenor), Ernesto; Henry

(Continued on page 128)

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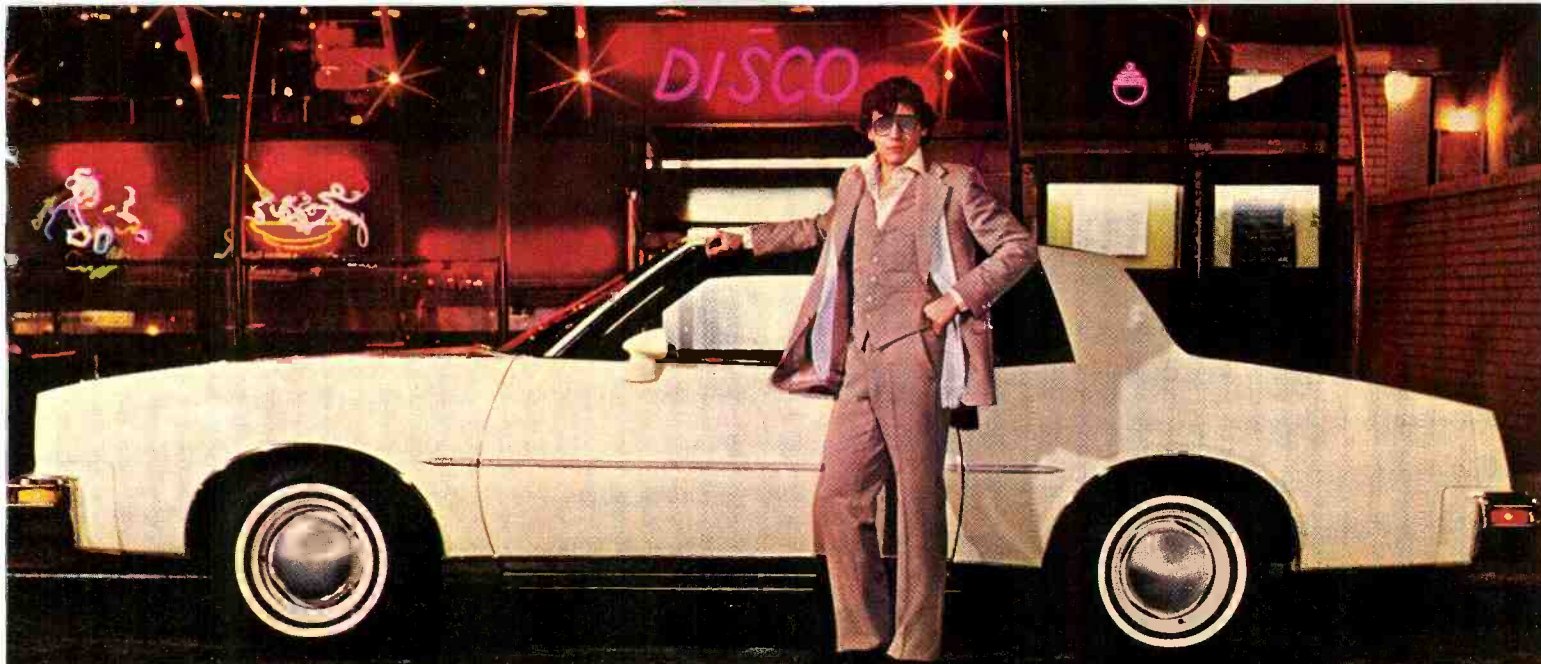
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Newman (tenor), Notary. Ambrosian Opera Chorus; London Symphony Orchestra, Sarah Caldwell cond. ANGEL SBLX-3871 two discs \$16.96, © 4X2X-3871 \$16.95.

Performance: **Not idiomatic enough**
Recording: **Good**

Italian *opera buffa* has a style all its own. It is infectiously humorous, witty, and high-spirited, and, above all, it is *Italian*, heir to centuries of tradition. Now, I know that "tradition" is suspect nowadays, and I have no doubt that a great deal of sound musical thinking went into the making of Angel's new *Don Pasquale*. But I think it is instructive to compare the new recording with the first complete recording of this comic masterpiece, made in 1932 and recently reissued on Seraphim IC-6084. Whereas that old set is simply brimming over with idiomatic exuberance, the new version reveals hardly any of the essential *buffo* spirit at all.

The difference is not in the singing. Except for Tito Schipa, the singers in the Seraphim set are not exceptional vocalists, certainly not superior to their modern counterparts. But in the new recording only Alfredo Kraus measures up to his part's requirements. His Ernest is technically accomplished, dramatically

convincing, and sung with immaculate elegance. Beverly Sills brings her familiar comic verve to the role of Norina/Sofronia—at times overpowering it with interpolations, at times playing it for laughs when smiles would be sufficient—but she is at her best vocally only in the third-act duet "*Tornami a dir.*" Donald Gramm is a very musical singer with a smooth technique, but his *Don Pasquale* is too tame, and Alan Titus is a pleasant but colorless Malatesta. The comedy in conversational passages, the subtle emphases and sly innuendos—these elude both interpreters. Furthermore, both artists, Titus especially, are careless with their double Italian consonants.

A Giulini or a Gardelli might have fused these unpromising ingredients into a persuasive totality, but I am afraid Sarah Caldwell was not the right choice for the task. Already in the overture I missed that elusive *buffo* spirit: the Norina melody is hurriedly stated, and much of the rest sounds charmless. Many of the succeeding episodes that should be spreading mirth even after countless hearings—Pasquale's exuberant waltz "*Un fuoco insolito.*" the Norina/Malatesta Instruction Scene, the mock wedding, the irresistible "*Cheti, cheti*" duet—go by uneventfully here. As I said before, the fault is not in the singing.

This is a decent, musicianly *Don Pasquale*, but it's a show that wouldn't "play" in the composer's native Bergamo. G.J.

GRAINGER: Short Orchestral Works (see **Best of the Month**, page 84)

GRIEG: Piano Concerto in A Minor, Op. 16 (see **Best of the Month**, page 84)

HANDEL: Ode for the Birthday of Queen Anne; Anthem for the Foundling Hospital. Judith Nelson, Emma Kirkby (sopranos); Shirley Minty (contralto); James Bowman (countertenor); Martyn Hill (tenor); David Thomas (bass); Choir of Christ Church Cathedral, Oxford; Academy of Ancient Music, Simon Preston cond. L'OISEAU-LYRE DSLO 541 \$8.98, © KDSL 541 \$8.98.

Performance: **Enthusiastic**
Recording: **Unbalanced**

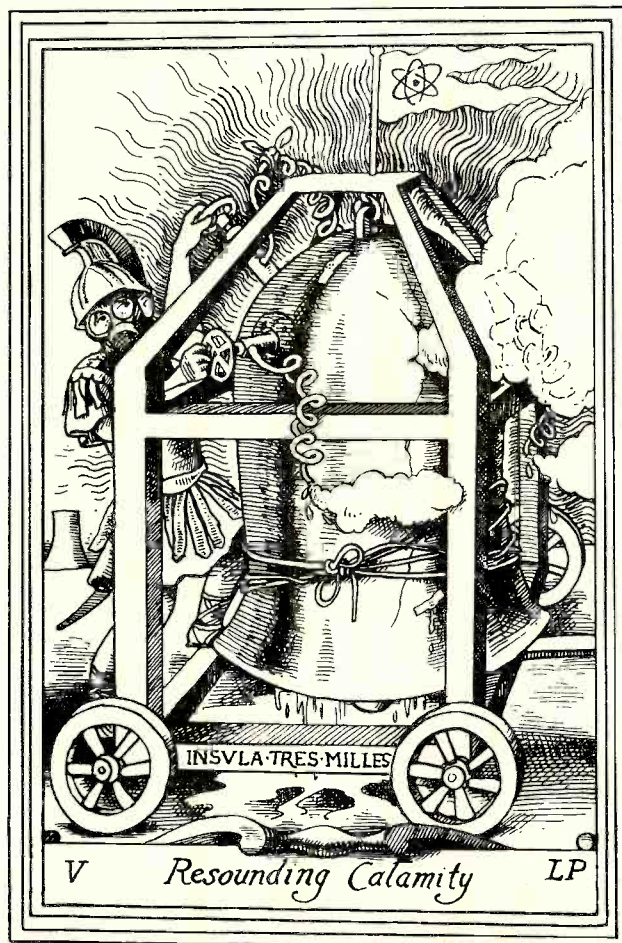
These two splendid choral works exemplify Handel's music during his early English days (the ode, 1712) and after he was established in England as a composer of opera and oratorios (the anthem, 1749). In the *Ode for the Birthday of Queen Anne*, he followed in the English ode tradition of Purcell, Eccles, and Clarke, as is heard in the eloquent opening arioso, in the many airs that terminate in choruses rather than using the da capo formula, and in a rousing ground-bass number for soloists and chorus, the true hallmark of an English ode. By the time he composed the *Anthem for the Foundling Hospital*, Handel's enthusiasm had mellowed somewhat, and this work is in a mature idiom in which the English choral tradition is judiciously combined with an Italianate operatic style. There is no lack of brilliance, however, and the work ends with the "Hallelujah" chorus from the *Messiah*.

The most striking feature of this album is the sound of the Christ Church Cathedral choir, which uses boy sopranos, and the sizable orchestra of authentic period instruments. The oboes are particularly mellow, and the sonority produced by countertenor, natural trumpet, and chamber organ is unique. The strings play in a natural rather than exaggerated Baroque style and surround everything with a silvery shimmer. The full blast of these forces in the "Hallelujah" chorus is very impressive.

There are some balance problems, however. In the ode the instruments are rather too loud and the soloists seem to be off in the distance somewhere. In the bass and tenor duet, the tenor is barely heard and seems to shadow the bass. (These problems are not as apparent in the anthem.) Although all the soloists are excellent musicians, not one of them has the operatic projection required by Handel's outgoing style. They sing with more care than conviction and lack the grand gesture of ceremonial music. While the chorus sounds fine, many of its entrances are ragged and much of the clarity of line is obscured by the cathedral's echoey acoustics. But the Academy of Ancient Music has solved many of the problems that vex authentic-style performances of large-scale choral works, and Handel's message of victory and strength comes through in full force. S.L.

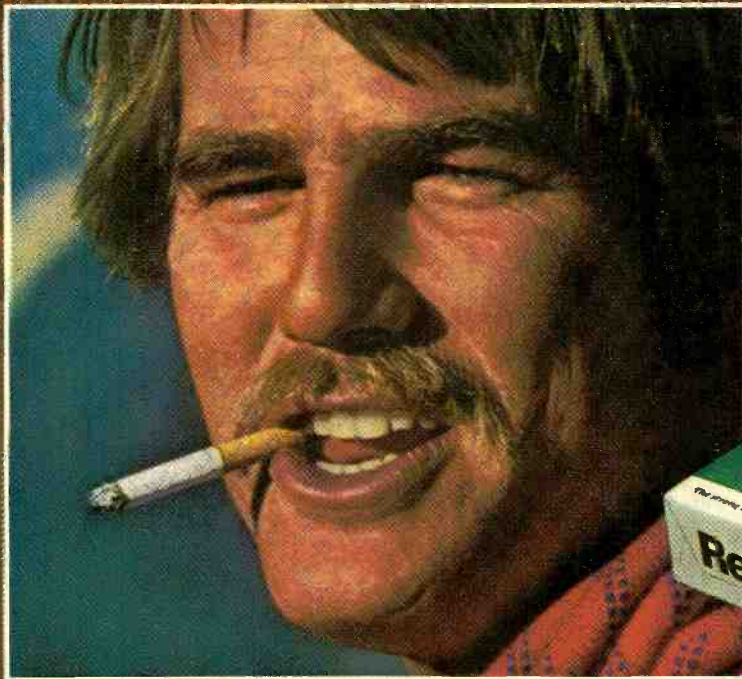
LISZT: Piano Concerto No. 1, in E-flat Major; Piano Concerto No. 2, in A Major. France Clidat (piano); Residentie Orchestra of the
(Continued on page 130)

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Performance: **Exciting pianism**
Recording: **Tubby**

RECORDING OF SPECIAL MERIT

LISZT: Piano Concerto No. 1, in E-flat Major; Piano Concerto No. 2, in A Major. Tamás Vásáry (piano); Bamberg Symphony Orchestra, Felix Prohaska cond. **Legend No. 2; Paganini Etude No. 2.** Tamás Vásáry (piano). PRIVILEGE 2535 131 \$6.98, © 3335 131 \$6.98.

Performance: **Stunning**
Recording: **Good**

France Clidat has been recording all of Liszt's

piano music for French Decca, but this disc of the two concertos would appear to be her first American release. She shows a splendid sense of identification with the material as well as the physical resources needed to put it across: her playing is filled with tension, excitement, and no little depth. I found, however, that what I enjoyed most were the long passages in the Second Concerto in which the orchestra is silent; there is little give-and-take in the concerted portions, but rather a feeling of a soloist proceeding on her own, unmindful of occasional interjections from the orchestra. The orchestral contribution, in any event, is not on Clidat's level; it ranges from perfunctory to coarse. (This is the same orchestra that used to be called the Hague Philharmonic in

its recordings under the late Willem van Otterloo and its U.S. tour under Jean Martinon.) Roger Norrington has been known on discs heretofore as a choral conductor; this (apparently) first orchestral recording is not one that gives the conductor much of the show, though others have made more of the opportunity. Moreover, the piano at times sounds clangy, the recording in general is a little tubby, and my review copy was afflicted with a conspicuous thump at each revolution. So, despite the obvious flair exhibited by France Clidat, I would pass this disc by and wait for some of her solo recordings.

There is a world of difference in the Vásáry/Prohaska album, and it is good to have it back in the catalog. It was one of Vásáry's earliest recordings, first issued nearly twenty years ago, but the sound could easily pass for much more recent than that, and the refinement in the true collaboration between soloist and conductor is of an exceptional order. Here, as in the more recent Berman/Giulini on Deutsche Grammophon's full-price label (2530 770), there is not only sweep and excitement but poetry. If you have thought of Prohaska only in connection with all those Bach recordings of his for Vanguard, you may be in for quite a surprise here. The opening phrase of the E-flat Concerto gives all the assurance one needs to settle back and enjoy, and one's pleasure is compounded almost measure by measure, especially in the chamber-music dialogues between piano and cello, piano and violin, etc. This is simply a stunning production, and the inclusion of the two encore pieces, both extremely sensitively played, make it even more of a value at the Privilege price. Regardless of price, though, it is one of the most attractive recordings of the Liszt concertos now available. R.F.

LOTTI: *Crucifixus* (see A. BONONCINI)

RECORDING OF SPECIAL MERIT

MESSIAEN: Harawi, Chant d'Amour et de Mort. Dorothy Dorow (soprano); Carl-Axel Dominique (piano). Bis LP-86 \$8.98 (from Qualiton Records, Ltd., 39-28 Crescent Street, Long Island City, N.Y. 11101).

Performance: **Strong**
Recording: **Okay**

Harawi, a song cycle of 1945, is based—words and music—on Peruvian folklore. The text apparently concerns a pair of lovers who, like Tristan and Iseult, can be united only in death. I say apparently because there are no texts with this record—a serious omission in a production like this one. Messiaen's highly original style is fully in evidence here and in a very appealing form. There seem to be Peruvian folk songs, color and rhythm modes, ecstatic cries, bird songs, and even a little jazz woven into this hour-long cycle, which builds constantly in intensity and excitement. The performance seems excellent, but the recording is a mixed bag, with the piano sometimes dominating the voice. I really missed having a crack at the texts, but even without them I found this clearly one of Messiaen's strongest and most expressive works, and it is very well performed here. E.S.

MILHAUD: *Protée, Suite Symphonique No. 2; Les Songs* (see Best of the Month, page 85)

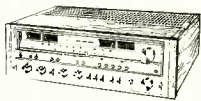
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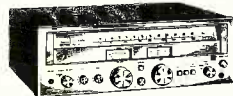
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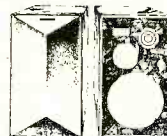
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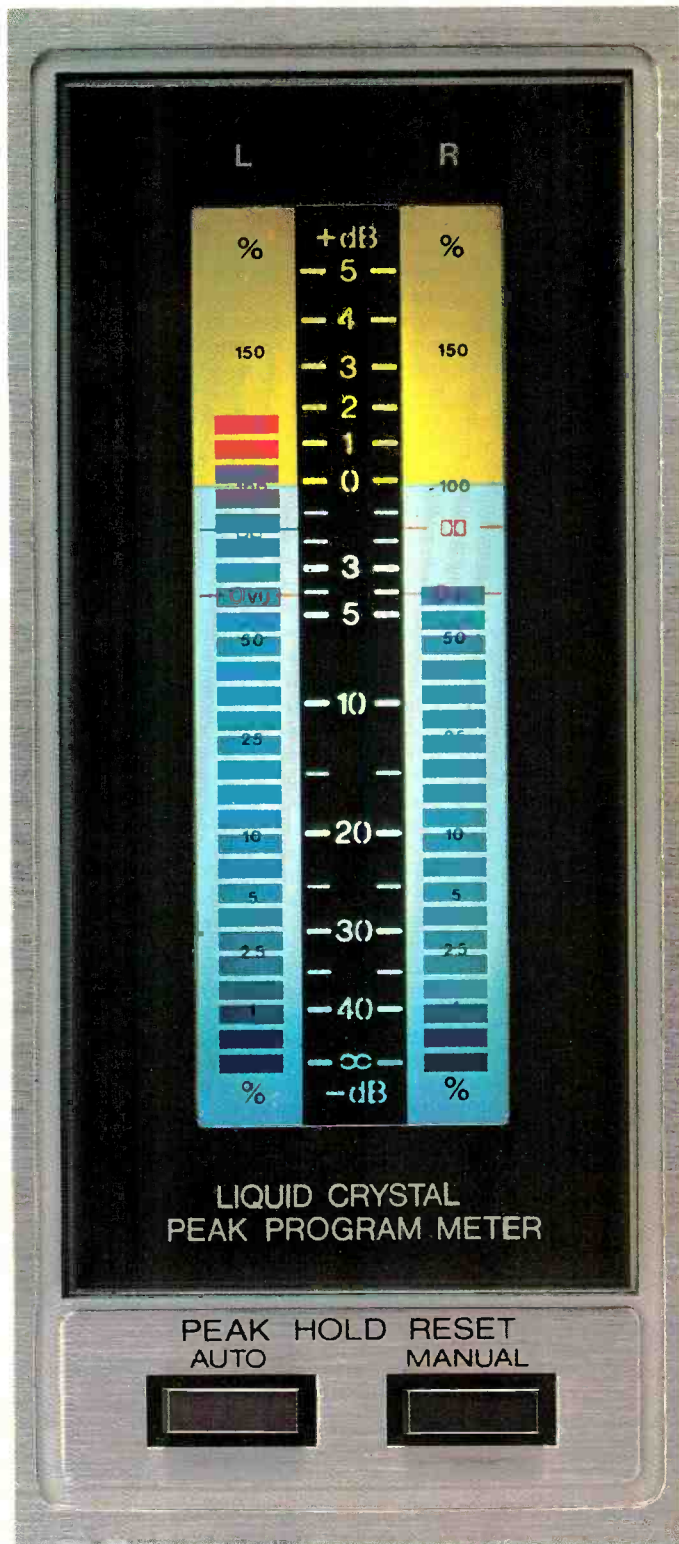


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OF the two great oratorios of Haydn's maturity, *The Creation* has always been given more attention and respect than *The Seasons*, his last grand-scale work, which has tended to be somewhat more lightly regarded. The Biblical orientation of *The Creation* surely has more than a little to do with this, and it may explain in large part, too, why that work has been performed and recorded more frequently than *The Seasons*. But, whatever the reason, the splendor of *The Seasons* still comes as a huge surprise, if not a shock, to

C. Robbins Landon, ensuring that the latest and most comprehensive benefits of his productive research are incorporated in these recordings. Dorati's *Seasons*, as Landon advises in his annotation, contains four specific instances of restorations of the original score recorded for the first time: the heretofore missing music for the contrabassoon, the scoring of the introduction to the work's second section ("Summer") for an orchestra without violins, and the uncut introductions to "Autumn" and "Winter"—the first time

and players exude an earthy and convincing exuberance that goes just a bit beyond any other presentation of this ingratiatingly extroverted music. The recently deleted Philips recording under Colin Davis was notable for its excellent soloists (Heather Harper, Ryland Davies, John Shirley-Quirk) and for being the only stereo version sung in English. The strongest rival of the new Dorati recording is the 1967 Deutsche Grammophon set with Karl Böhm conducting (2709 026), and it is formidable competition indeed. In it, Böhm shows not merely the solid authority and craftsmanship that make him so reliable an interpreter of the Viennese classics, but also an unexpected dynamism, wit, and sense of drama quite in keeping with the theatrical touches in the work.

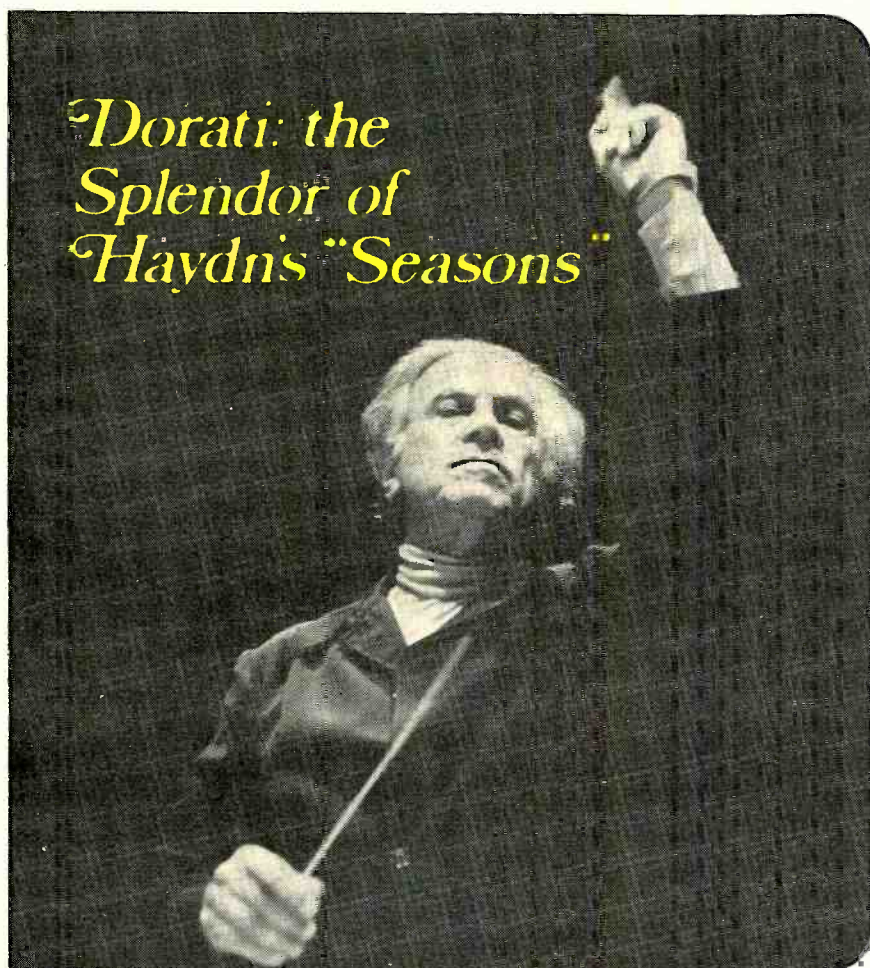
In general, Dorati's own inspiration serves him (and Haydn) every bit as well. There are interpretive differences here and there—a faster tempo in the "Autumn" introduction that some may find nervous, a broadening at the very end of the work, a less emphatic outburst of drums to begin the penultimate chorus in "Summer" ("Ach! das Ungewitter naht")—but all the charming instrumental by-play and imitations of nature-sounds are just as effective in the one set as in the other. If Böhm is at times more emphatic or dramatic, Dorati is more expansive and open-hearted.

Where the newer set most decisively scores over the older one, apart from the matter of its richer, wide-open sound, is in its superior soloists. The two tenors are about evenly matched (though Böhm's Peter Schreier was less advantageously recorded than Dorati's Werner Krenn, the bloom on whose voice is beautifully captured by the English engineers), but in the other two roles Dorati's team wins hands down. Gundula Janowitz merely makes beautiful sounds for Böhm (as she did later for Karajan in Angel SB-3792), whereas Ileana Cotrubas—whose incredibly active life in the recording studio (I think I did receive one or two choral or operatic releases last month in which she does *not* participate) has yet to take its toll of her resources for producing sheer vocal radiance—is always aware of the words she is singing and unfailingly communicates their sense and spirit. Finally, though Böhm's Martti Talvela, admirable singer that he is, just sounds weighted down and uncomfortable with much of his assignment, Dorati's Hans Sotin, mellow and more flexible, revels in his opportunities to personify the warm humanity that illumines *The Seasons* in its various tableaux and contrasting moods. Roger Vignoles' harpsichord, too, is always in the picture when needed—and only as much as needed.

DORATI has given us nothing finer in his extraordinary survey of Haydn's works, but the real triumph, as he would be the first to acknowledge, is surely Haydn's own.

—Richard Freed

HAYDN: *The Seasons (Die Jahreszeiten)*. Ileana Cotrubas (soprano), Hanne; Werner Krenn (tenor), Lukas; Hans Sotin (bass), Simon; Brighton Festival Chorus; Royal Philharmonic Orchestra, Antal Dorati cond. LONDON OSA-13128 three discs \$26.94, © OSA-13128 \$26.94.

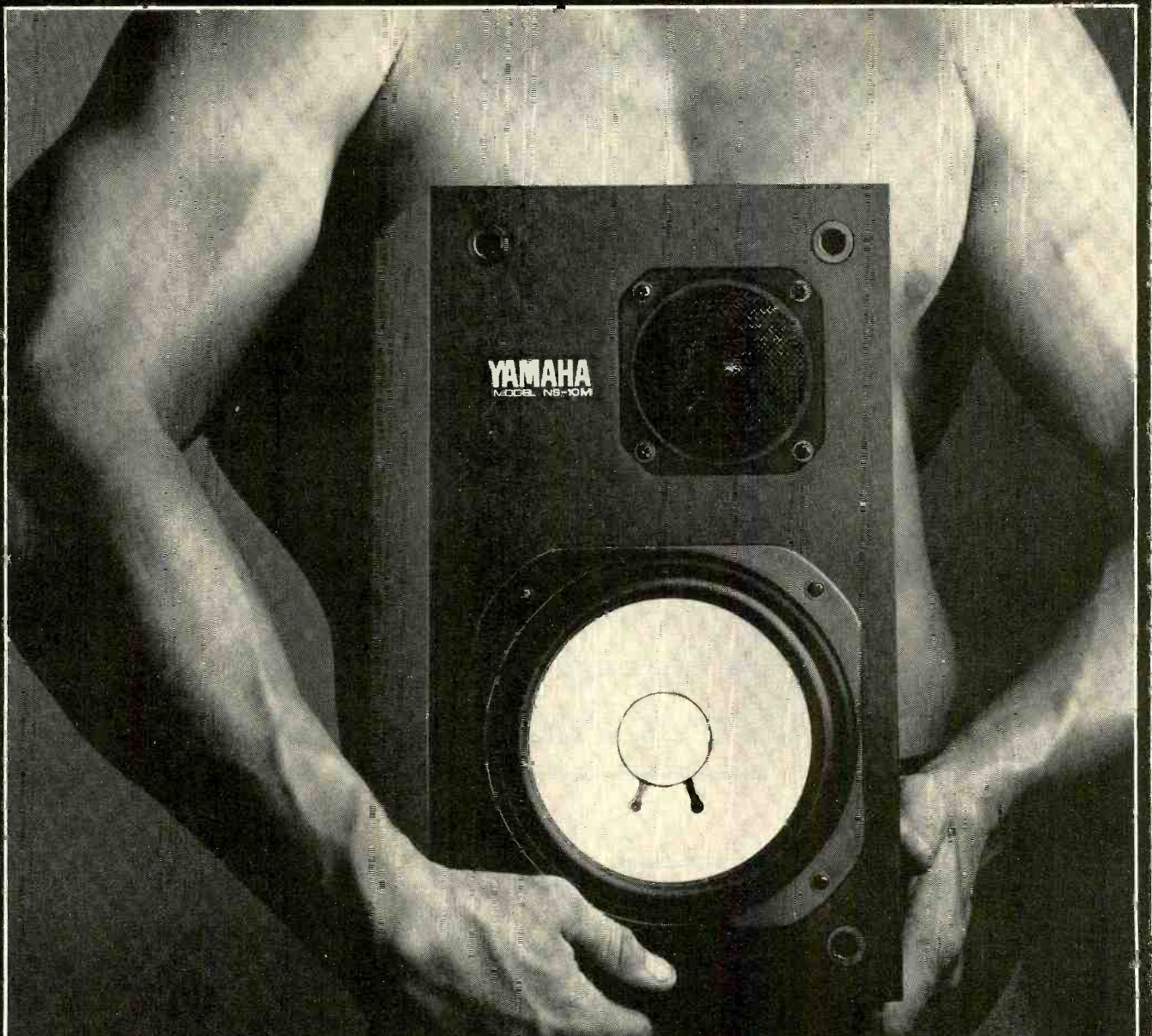


listeners who know *The Creation* and expect its later companion to be a lesser work; a new recording of *The Seasons* conducted by Antal Dorati for London may go just a bit farther than all of its predecessors toward correcting that attitude.

In the last several years Dorati has, of course, become our pre-eminent Haydn conductor as a result of his unprecedentedly numerous contributions to the composer's discography. After recording all the symphonies for London, he embarked on surveys of all the operas for Philips and all the concertos for Vox/Turnabout, and he is recording all the oratorios for London (*Il Ritorno di Tobia*, I understand, is to follow *The Creation*, released earlier in set OSA-12108, and the new *Seasons*). At his elbow, figuratively speaking, has been our pre-eminent Haydn scholar, H.

they have been so played (it would appear) since the première in 1801. While these are, admittedly, small points and perhaps of little interest to listeners who are not themselves scholars (though Landon points out that the portion cut from the "Winter" introduction "includes some of the most daring music, harmonically, that Haydn ever wrote"), the performance itself is the most consistently beautiful and involving (one might say "embracing") account of this marvelous work yet committed to records.

To be sure, there has not been an unsatisfying version of *The Seasons* in stereo. The oldest such recording, conducted by Walter Goehr on Nonesuch HC-73009, is not only a fine value but is perhaps still incomparable in one particular section, the closing portions of "Autumn," in which the Hamburg singers



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MOZART: Exsultate, Jubilate (K. 165); Vorrei Spiegarmi, Oh Dio! (K. 418); Non Temer, Amato Bene (K. 490). Il Re Pastore (K. 208): L'Amoro, sarò costante. Judith Blegen (soprano); Mostly Mozart Orchestra, Pinchas Zukerman cond. COLUMBIA/MELODIYA M 35142 \$7.98, © MT 35142 \$7.98.

Performance: **Mostly fine**
 Recording: **Mostly good**

By the standards Judith Blegen has set for herself in the many recordings she has made in the last few years, her *Exsultate, Jubilate* here is a bit of a disappointment: the beauty of the voice fails to offset the impression of undue heaviness, and in the final section of the famous "Alleluia" that high C is conspicuously strained. What one wants in this piece is the security and the sense of real exultation exhibited by Elly Ameling on Philips 6500 006, as well as the somewhat lighter touch of conductor Raymond Leppard. It is, by the way, strange to find this work taking up a whole side on the new Columbia disc. Side two is more generously filled and altogether more satisfying, with Miss Blegen in fine fettle and with more enlivening accompaniment too. Leonard Arner is the eloquent oboist in K. 418; Pinchas Zukerman supplies the violin obbligato in both the other arias. The sound seems a little compressed in that very uncrowded K. 165, but it is quite good in the three arias.

R.F.

MOZART: Oboe Concerto in C Major (K. 314); Oboe Concerto in E-flat Major (attrib. Mozart, K.Anh. 294b). Han de Vries (oboe);

YEVGENY NESTERENKO is a worthy heir to the great tradition of Russian basses, and on a new Columbia/Melodiya release of Moussorgsky's *Songs and Dances of Death* he gives this great and original masterpiece its full due. Nesterenko has a gorgeous, rich voice, but that's only the half of it; without sacrificing power and beauty, he is able to cover a tremendous range of emotional and dramatic expression. Each of the four songs in the cycle is presented as a powerful music-drama in miniature. Texts are included, and they should be followed to appreciate the subtle strength of these interpretations.

The *Songs and Dances of Death* are alone quite enough to recommend this record, but the other Moussorgsky songs on side two are hardly without interest. There is an amusing and sonorous performance of the *Song of the Flea*, plus the earlier, mostly lesser *Sunless* cycle and the very early song *King Saul*. There is some variation in the quality of the recorded sound on side two, and in general the voice is a little too strongly favored over the piano parts—which, of course, contain a large share of Moussorgskian harmonic originality. Even so, it would be hard not to give these deeply moving performances the highest recommendation.

—Eric Salzman

MOUSSORGSKY: Songs and Dances of Death; Sunless; King Saul; Song of the Flea. Yevgeny Nesterenko (bass); Yevgeny Shenderovich, Vladimir Krainev (piano). COLUMBIA/MELODIYA M 35141 \$7.98.

Prague Chamber Orchestra, Anton Kersjes cond. ANGEL □ S-37534 \$7.98.

Performance: **Good, but . . .**
 Recording: **Good**

Han de Vries, the current standard-bearer in the long line of fine Dutch oboists, plays both of these concertos with an abundance of skill and style, but I think he might have chosen happier material for what seems to be his debut disc. I certainly have to question his apparent enthusiasm for the "attrib. Mozart" Concerto in E-flat. The liner note, to which he contributed, more or less acknowledges that the work is no Mozart's. Köchel was sure that it wasn't, and no one at all familiar with Mozart's music could imagine for a moment that he could have had anything to do with this piece, which sounds at best like poor imitation Cherubini produced long after even that composer's demise. I found myself wondering if I would have been more receptive if Mozart hadn't been brought into the picture, but I don't think so. It is really an uninteresting work and no particular credit to whoever may have concocted it (possibly Ernst Naumann, who edited the score for publication in 1894; this recording uses the later Jensen/Maedel edition). Stylish as De Vries is in the real Mozart Oboe Concerto, his tone—more pungent than sweet—and his reluctance (or failure) to bring out any individual character in the work make his technically alert performance a good deal less persuasive than Heinz Holliger's on Philips 6500 174, which seems to me just about the ultimate in terms of both

(Continued on page 136)

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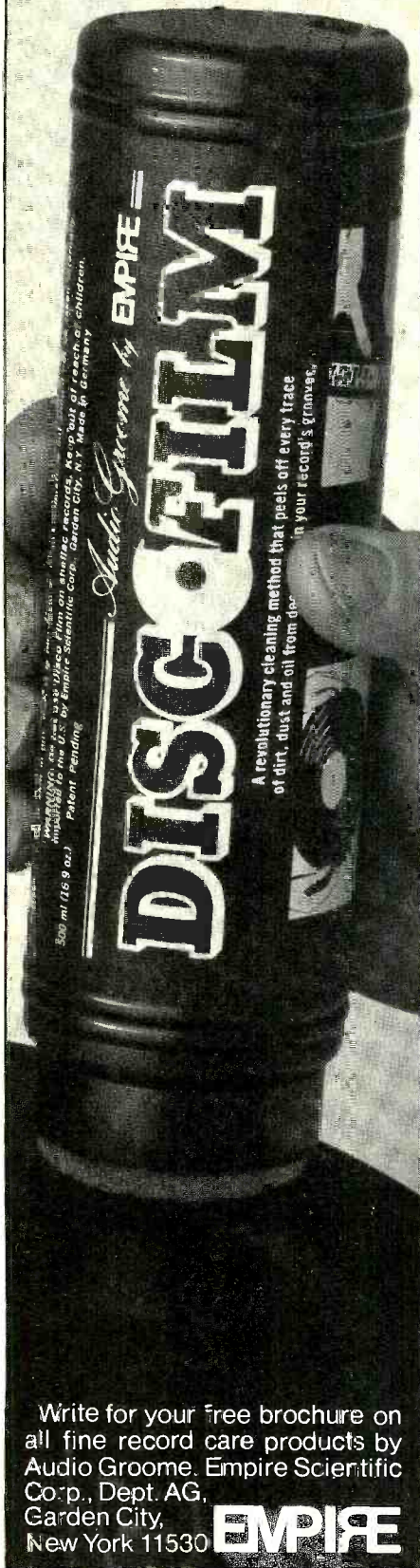


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technique and expressiveness. The Angel/Supraphon recording itself is good, if a little hard sounding. R.F.

MOZART: Piano Concerto No. 25, in C Major (K. 503); Piano Concerto No. 27, in B-flat Major (K. 595). Alicia de Larrocha (piano); London Philharmonic Orchestra, Sir Georg Solti cond. LONDON CS 7109 \$8.98.

Performance: **Restrained**
Recording: **First-rate**

The two works on this disc are probably Mozart's greatest concertos, the soloist and conductor are among the most admired musicians of our time, the orchestra is perhaps one of the best between Philadelphia and Berlin, and the sound is first-rate. And yet, the whole somehow seems considerably less than the sum of these formidable parts. There is a great deal of refinement—gorgeous playing from the orchestra's winds as well as by Larrocha herself—and the mesh between soloist and orchestra is well-nigh perfect. But the performance of K. 595 in particular is so underanimated as to suggest that both principals made a conscious effort to restrain their natural vivacity and simply overdid it. The work's "valedictory" nature is exaggerated by an approach that is not expansive but merely sleepy; there is no sparkle in the "spring song" finale, which slows down into a rather grim sentimentality. Although K. 503 fares better in terms of vitality, it has a rather cold-blooded frame, with the exuberance of the outer movements suppressed. For a more convincing coupling of these two concertos I would recommend the economical one by Michele Boegner with Karl Ristenpart conducting (Musical Heritage Society MHS 744). For the most satisfying recordings of the two works individually, I pick Bernstein's very grand version of K. 503 on Columbia M 34574, with his own remarkable cadenza (Larrocha plays the one by Robert Casadesus), and for K. 595 Emil Gilels with Karl Böhm on Deutsche Grammophon 2530 456. R.F.

MOZART: Symphonies: No. 32, in G Major (K. 318); No. 35, in D Major (K. 385, "Haffner"); No. 36, in C Major (K. 425, "Linz"); No. 38, in D Major (K. 504, "Prague"); No. 39, in E-flat Major (K. 543); No. 40, in G Minor (K. 550); No. 41, in C Major (K. 551, "Jupiter"). Berlin Philharmonic, Herbert von Karajan cond. DEUTSCHE GRAMMOPHON 2709 080 three discs \$26.94, © 3371 042 \$26.94.

Performance: **Shallow**
Recording: **Routine**

Somehow the combination of Karajan, the Berlin Philharmonic, Deutsche Grammophon, and a slew of late Mozart symphonies only adds up to a Mozartian glut. I don't know how many times Karajan has recorded the last few symphonies, but I'm not convinced about the advantages of having another bunch recorded and put out in apparent haste in a big box.

The last of these three discs—with Symphonies Nos. 40 and 41—is easily the best of the lot. These are obviously works Karajan and his musicians know pretty well, and they show a few signs of accumulated wisdom. Even so, there is no special depth or brilliance. And the further back we go in this set, the more routine the performances.

There are some aspects of this production
(Continued on page 139)

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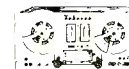
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that are truly inexplicable, especially coming from Germany and DG. There are actually four bars missing from the exposition of the "Linz" Symphony, and many repeat marks are not observed, including at least one non-optional minuet trio. Is Karajan recording too much—classics taped and mastered without the kind of thought and care that any naïve buyer would take for granted with such music from such a source? I think the answer is yes; let the buyer beware. E.S.

PARTCH: *The Rose; The Wind; The Waterfall; The Intruder; I Am a Peach Tree; A Midnight Farewell; Before the Cask of Wine; The Street; The Dreamer That Remains.* Harry Partch (voice, various instruments); Ben Johnston (marimbas); vocal and instrumental ensemble, Jack Logan cond. **CAGE:** *Music of Changes, Parts III and IV.* David Tudor (piano). NEW WORLD NW 214 \$8.98.

Performance: **Historic**
Recording: **Variable**

Harry Partch and John Cage are two of the great American eccentrics. Everyone (well, almost everyone) has heard of Cage, but Partch's fame has been restricted mostly to his fan(atic)s. Indeed, there are good reasons for both his restricted fame and his devoted following. Partch is the ultimate individualist. He actually spent a number of years on the road as what used to be called a hobo. Not satisfied with creating a music totally unlike anyone else's, he invented and built the instruments to play it on: these sonic (and visual) fantasies he called Gourd Tree, New Harmonic Canon, Quadrangularis Reversum, Euca Blossom, Mbira Bass Dyad, Cloud-Chamber Bowls, Chromelodeon, Boo, etc. These instruments—mostly one of a kind—have perhaps more in common with African or Asian instruments than with any of those from the Western tradition. On them Partch developed a tuning system that turned its back on Western equal temperament in favor of a more "natural" tuning that includes microtones—again relating to Eastern usage. Finally, he developed a chanting or "intoning" vocal style that is neither speaking nor singing yet seems strangely close to the typical cadences of American speech.

No one could demonstrate how this goes better than Partch himself, and the heart of this record is the group of songs (the first eight listed above) with Partch "intoning" and playing accompanied only by the composer Ben Johnston (himself a microtonalist of a younger generation) on marimbas or by another vocalist, William Wendlandt. These recordings, made in 1947 and 1950, capture the nasal twang, the plainness, and the mystery in both Partch's voice and the music. By 1973, the year *The Dreamer That Remains* was recorded (and one year before his death), Partch had gathered together a group of young people who mastered his instruments and his music—almost a tribal conglomeration formed around the magnetic personality of this unique man. The music they made is such a combination of passion, humor, fantasy, contrary aesthetics, originality, amateurism, plain speaking, poetry, and naïveté that it is impossible to know where one leaves off and the other begins. I can assure you of one thing only: it sounds like nothing else.

I wish the same could be said for Cage's *Music of Changes*. We have here a landmark performance (David Tudor, avant-garde pian-

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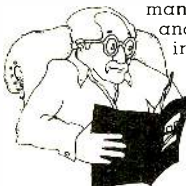
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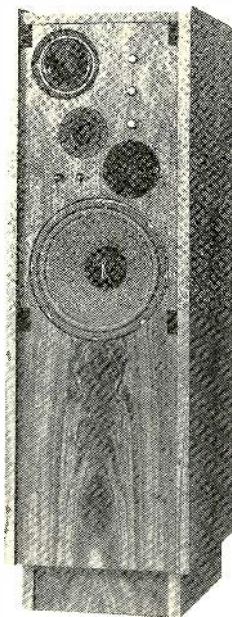
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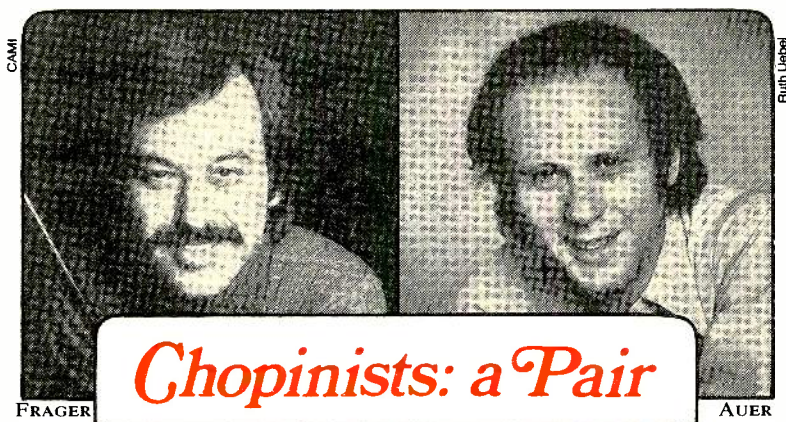
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Chopinists: a Pair

Two Chopin recitals, one recorded direct-to-disc by RCA Japan and the other digitally mastered by Telarc, are the first high-technology piano recordings to come my way since John O'Connor's remarkable digital disc of Mendelssohn's *Songs Without Words* from Denon last year (reviewed here in October 1978). If I may judge from the photo enclosed with the Denon album, O'Connor used a mere Steinway B, whereas Malcolm Frager played an enormous (9-foot, 6-inch, ninety-seven-key) Bösendorfer Imperial for the Telarc disc and Edward Auer (a pupil of Rhosina Lhevinne) used a German Steinway D concert grand for his RCA Japan record. Yet, in purely sonic terms, aside from both the musical content and the characteristics of the individual instruments, to my ears the Mendelssohn disc—flawlessly balanced throughout the piano's frequency range—is the best of the three, which is another way of saying that there is much more to recording the piano than just advanced technology.

In musical terms, Frager is at his best on his disc in such splendidly virile pieces as the A-flat Polonaise and in meeting the virtuosic demands of the Op. 12 variations and the A-flat Tarantella. He does not match Horowitz's legato in the *Andante Spianato* (nor does anyone else, for that matter), let alone Arthur Schnitzi's way with the mazurkas. As for the Second Scherzo and Third Sonata played by Auer (six years Frager's junior), one can only gasp in astonishment at his almost faultless execution of two eighteen-minute direct-to-disc sides of some of the most technically exacting music in the keyboard repertoire; he must have not only fingers but *nerves* of steel! A few notes land between the keys, but it is still a real tour de force. Interpretively, Auer's performances highlight the music's brilliance and dramatic force more than the tonal poetry one hears when it is played by, say, Vladimir Ashkenazy.

The brilliance of the RCA Japan production is underscored by what appears to be a close microphone placement in a hall that is fairly neutral sonically. Despite the apparent use of supplementary microphones to provide a measure of room ambience (I depend here in part on diagrams and photographs on the record jacket), very little such ambience comes through in playback, and the piano's midrange is decidedly emphasized over its low end. As one who has himself produced a good many piano recordings, I know well how criti-

cal—within inches—microphone placement can be in determining a just balance of the tonal range of any given instrument. There is also the crucial matter of the instrument's voicing. Pianos voiced for use in 3,000-seat concert halls are a sore trial for any producer, which may help explain why so many European-made piano tapings are superior, since the average European chamber-music or solo-recital hall seldom accommodates more than a thousand listeners, and the pianos are adjusted for that.

I would like to have known where the Frager disc was recorded (there were no clues on the record jacket that I could find), for with the simpler three-microphone setup used by Telarc the hall coloration is clearly but not obtrusively audible throughout, lending the overall sound a pleasing tonal warmth. The sheer size of the Bösendorfer's sound is a bit overwhelming at some points, especially in the polonaise, and there (as elsewhere on the disc) I sense a microphone placement that tends to play up the instrument's splendidly rich bass at the expense of the midrange and higher frequencies.

THESE two releases have not altered my existing opinion of the superiority of digital over direct-to-disc recording techniques from the perspective of the performer and the producer, simply because the tape-editing option is retained (the latest digital technology apparently even allows for in-session electronic editing). But from the point of view of the listener, these are both distinguished releases, and, together with the Denon Mendelssohn disc, they are fascinating and instructive benchmarks in the art and science of piano recording.

—David Hall

CHOPIN: Polonaise in A-flat Major, Op. 53 ("Heroic"); Andante Spianato and Grande Polonaise in E-flat Major, Op. 22; Variations Brillantes on a Theme from Halévy, Op. 12; Mazurkas, Op. 6; Contredanse in G-flat Major; Tarantella in A-flat Major, Op. 43. Malcolm Frager (piano). TELARC ● DG-10040 \$14.95 (from Audio-Technica, 33 Shiawassee Avenue, Fairlawn, Ohio 44313).

CHOPIN: Scherzo No. 2, in B-flat Major, Op. 31; Piano Sonata No. 3, in B Minor, Op. 58. Edward Auer (piano). RCA JAPAN ● RDCE-7 \$15.95 (from Audio-Technica, 33 Shiawassee Avenue, Fairlawn, Ohio 44313).

ist extraordinaire, recorded it in 1953) of a landmark piece—two major sections of it, anyway. This was one of the first works in which Cage eschewed conscious control and substituted chance, in this case the oracle system of the *I Ching*. Chance governs everything here, even the tempos and the dynamics. The result? A routine piece of modern music. Today, the *Music of Changes* sounds like a good deal of other music from the Fifties and early Sixties; in fact, it sounds very much like the totally organized serialism that was long considered its polar opposite. Tudor is, as always, impressive, but I much prefer the Cage of the prepared pianos, of the happenings and the silences and the fragments of real life.

E.S.

RACHMANINOFF: Symphonic Dances, Op. 45. U.S.S.R. Symphony Orchestra, Yevgeny Svetlanov cond. **TCHAIKOVSKY: Suite No. 4, Op. 61 ("Mozartiana").** Moscow Radio Large Symphony Orchestra, Vladimir Fedoseyev cond. ABC AY-67032 \$6.98.

Performance: **Good Tchaikovsky, distressing Rachmaninoff**
Recording: **Tchaikovsky better**

Rachmaninoff's last work is one I have become increasingly fond of over the years, and with a new recording I am always curious to see what kind of balance the conductor strikes between its rhythmic-dramatic aspects and its intense lyricism. So far, the late Eugène Goossens' version on Everest has yet to be surpassed.

This reading by Yevgeny Svetlanov promises much at the very beginning, for the conductor has a splendidly firm grip on the rhythm. But the moment the lyrical material comes in, the performance becomes an exercise in exaggerated rubato. Moreover, the orchestral playing—especially by the saxophone soloist (first movement) and the horn section—is unrefined, to say the least, and things are not helped by the rather limited-range recording or the side break midway in the fourth movement.

The set of Tchaikovsky's Mozart arrangements published as his Suite No. 4 for Orchestra is quite a different matter. The recording is warmer and more spacious, and Fedoseyev and his players perform with great spirit and charm. The flute, violin, and clarinet soloists in the variations movement thoroughly deserve the credits they receive on the record jacket.

D.H.

RESPIGHI: The Fountains of Rome; The Pines of Rome. Berlin Philharmonic, Herbert von Karajan cond. DEUTSCHE GRAMMOPHON 2531 055 \$8.98, © 3301 055 \$8.98.

Performance: **Close to perfection**
Recording: **Excellent**

The Schwann catalog abounds in listings of Ottorino Respighi's tone poems *The Pines of Rome* and *The Fountains of Rome*—along with that rather loud-voiced companion of theirs, *Roman Festivals*—and no wonder. Respighi did no experimenting with new vocabularies of musical expression. What he sought to do was to use the orchestral techniques he had learned from Rimsky-Korsakov in Moscow to speak to Italian listeners in a musical language they could readily understand. As it turned out, what he had to say appealed to a world-wide audience: *Pines* was

(Continued on page 142)

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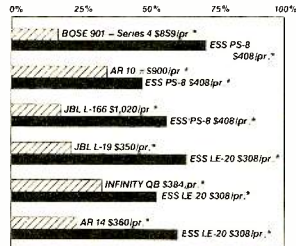
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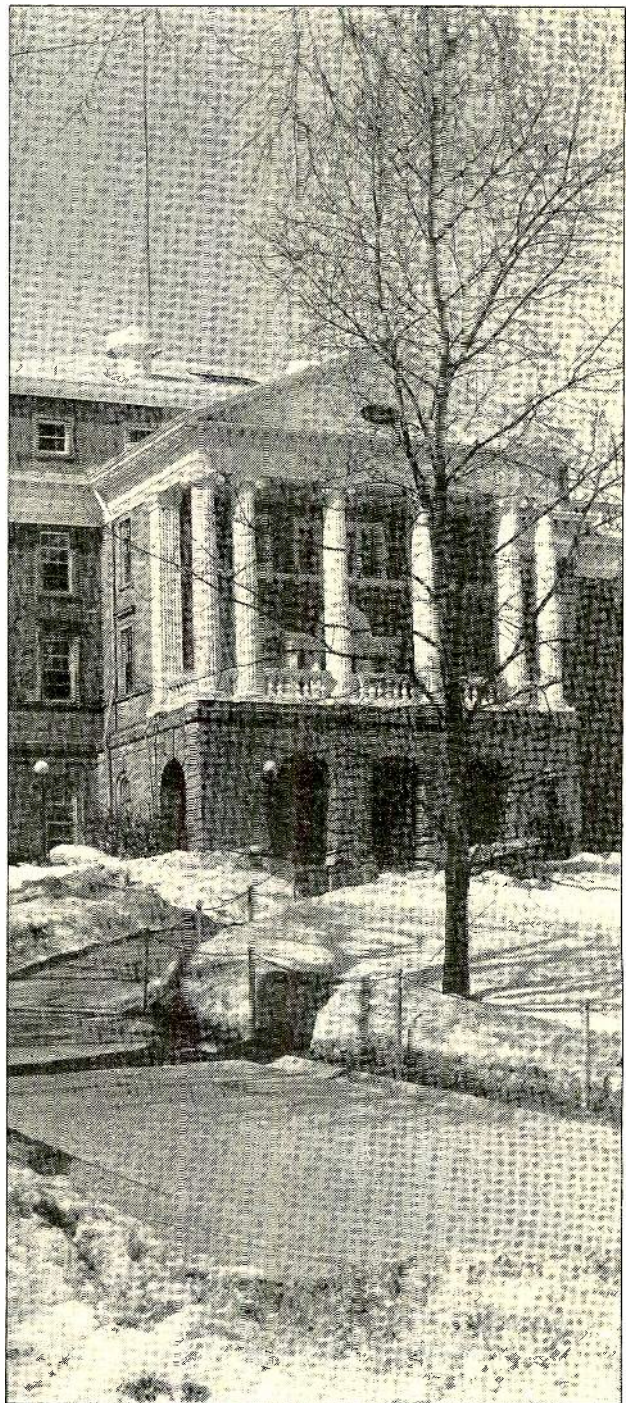
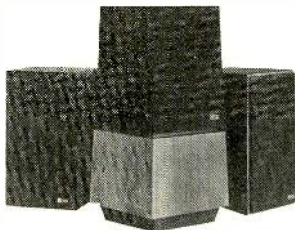
Without knowledge of speaker brands, the students listened in groups of 30 or less to the same musical material on each of the speakers. They were then asked to choose which speaker sounded best in terms of clarity, accuracy and freedom from distortion.

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once a staple for the orchestra at Radio City Music Hall to play between the movie and the stage show. Actually, these pieces are soundtracks that don't need a movie—or a stage show—to go with them. Such music may be superficial and obvious, but it is also hard to resist when conducted and played with the kind of stirring conviction brought to them by Toscanini, whose recordings of these works still set the standard. Karajan, in the same tradition, comes as near as anybody has to meeting that mark, and the recorded sound here is as fine as this music has ever received. P.K.

SCHUBERT: Songs (See Collections—Marian Anderson)

SCHUBERT: Songs (see Collections—Hermann Prey)

SCHUBERT: String Quartet No. 15, in G Major, Op. 161 (D. 887). Guarneri Quartet. RCA ARL1-3003 \$7.98.

Performance: **Dry**
 Recording: **Clear**

This performance has so much going for it—sensible tempos, unforced phrasing, utter unanimity on the part of the four players, impeccable playing—and yet the impressive parts do not seem to coalesce into a credible whole. There is much to admire, yet little that is in any way moving. Over the years I have wondered about the dry, "blanched-out" sound of the Guarneri Quartet's recordings. Since they have been made with more than one producer and for a company whose capacity for sumptuous sonics is abundantly demonstrated in its other releases, I have had to conclude that this is the way the group prefers to sound. To my ear, this sound—projected here with clinical clarity—emphasizes their antiseptic, uninvolved approach, which suggests an exercise competently and objectively executed rather than a realization based on deep conviction and insight of a great and supremely poignant work. This is, admittedly, a highly personal response (or failure to respond), but the G Major Quartet is the sort of work about which one is likely to have very deep and unavoidably subjective feelings.

Listeners who find the Quartetto Italiano's recent Philips recording (9500 409) too voluptuous, too intense, or generally larger than life may find the Guarneri version more attractive than I do. I can only say that, for me, the Italians have come closest to saying the last word on this remarkable work. Theirs is not an "objective" performance, but it grips our attention and belief, exhibiting the sort of momentum that makes the repeat of the exposition in the first movement no tiresome gesture, but essential to the proportions of the work. The Philips sound, too, is near-perfect in its rich realism, with a fine bloom on the strings which never threatens to smudge, while RCA's matches the Guarneri approach: sharp, clear, and rather two-dimensional. R.F.

TCHAIKOVSKY: Suite No. 4, Op. 61 (see RACHMANINOFF)

TCHAIKOVSKY: Symphony No. 4, in F Minor, Op. 36. Berlin Symphony Orchestra, Kurt Sanderling cond. DENON/PCMA OX-7137-ND \$14 (from the Discwasher (Continued on page 144))

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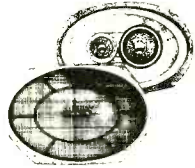
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Performance: **Passionate**
Recording: **Disappointing**

This performance has much of the warmth, if not quite the fierceness, of Kurt Sanderling's earlier recording, with the Leningrad Philharmonic, released here by Decca in the Fifties. The Berlin Symphony, however, is not the equal of the Leningrad, nor of the half-dozen other top orchestras that have contributed superior performances of Tchaikovsky's Fourth to the catalog. Moreover, my impression is that the German/Japanese production team, in order to control the reverberant acoustics of the church where this was recorded, used a multiple-microphone setup that was too close-in to capture the violin sonority so important in Tchaikovsky. To my ears the violins sound slightly out of focus, and there is an overbalance in favor of the entire low end of the orchestral sound spectrum. This is particularly disappointing considering the great sound potential of Denon's digital-mastering process and flawless pressing technology. There is, though, one part of this recording that *does* show all that digital mastering can do: the celebrated *pizzicato ostinato* scherzo. There is less ambient noise than one would hear at any live performance, and for me it is simply a breathtaking experience that all by itself would be worth the considerable price of the disc.

D.H.

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ELLY AMELING: *Souvenirs*. **Rossini:** *La Danza*. **Canteloube:** *Brezairiola*. **Rodrigo:** *De les Alamos*. **Vuillermoz:** *Jardin d'Amour*. **Rachmaninoff:** *Spring Waters*. **Hahn:** *La Dernière Valse*. **Ives:** *Memories*. **Schoenberg:** *Gigerlette*. **Nakada:** *Oyasumi Nai Sai*. **Purcell:** *Music for a While*. **Weldon:** *The Wakeful Nightingale*. **Britten:** *O Waly, Waly*. **Martin:** *Unter den Linden*. **Liszt:** *O Lieb*. **Sibelius:** *Spring Is Flying*. **Trad. Dutch:** *Moeke*. **Hulbreock:** *Afrikaans Wiegeliedjie*. **Elly Ameling** (soprano); **Dalton Baldwin** (piano). COLUMBIA M 35119 \$7.98.

Performance: **Marvelous**
Recording: **Good sound, noisy surfaces**

This is a collection of encore pieces encompassing a wide variety of styles and, by my count, ten different modern languages plus medieval German and the Auvergne dialect. All these songs seem to be favorites of Elly Ameling, and she sings them, so far as I can judge, idiomatically, charmingly, and with great skill. Her art is the kind that conceals artfulness: everything seems to flow naturally, including the florid runs in *The Wakeful Nightingale* and the word torrents of *La Danza*, despite a boldly breakneck tempo. Among the many unconventional selections are a delicious Reynaldo Hahn song in his usual salon style and one not too far from it in spirit by, of all people, Arnold Schoenberg. Haunting Ives, stately Sibelius, modal Britten—all are done impeccably.

Dalton Baldwin's collaboration is, as always, outstanding. The record surfaces ought to be more silent, but the disc is otherwise an unalloyed delight.

G.J.

(Continued on page 148)

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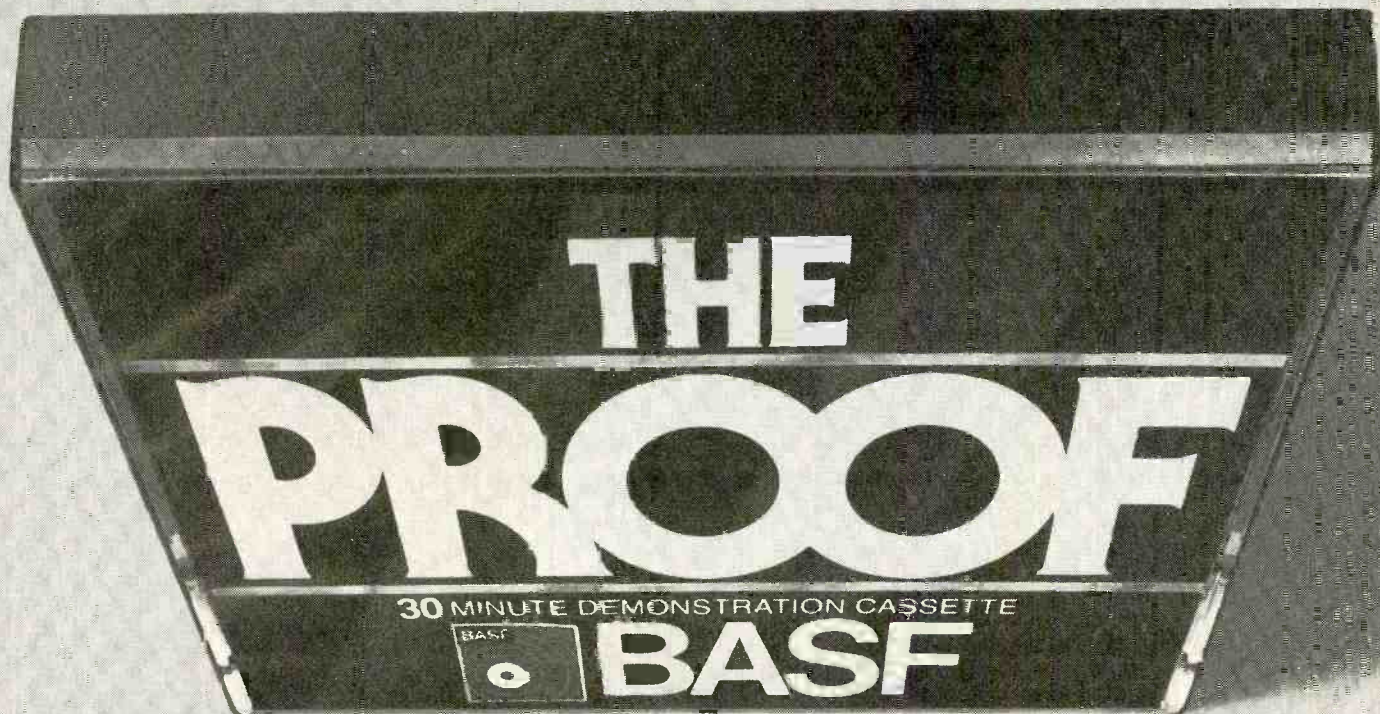
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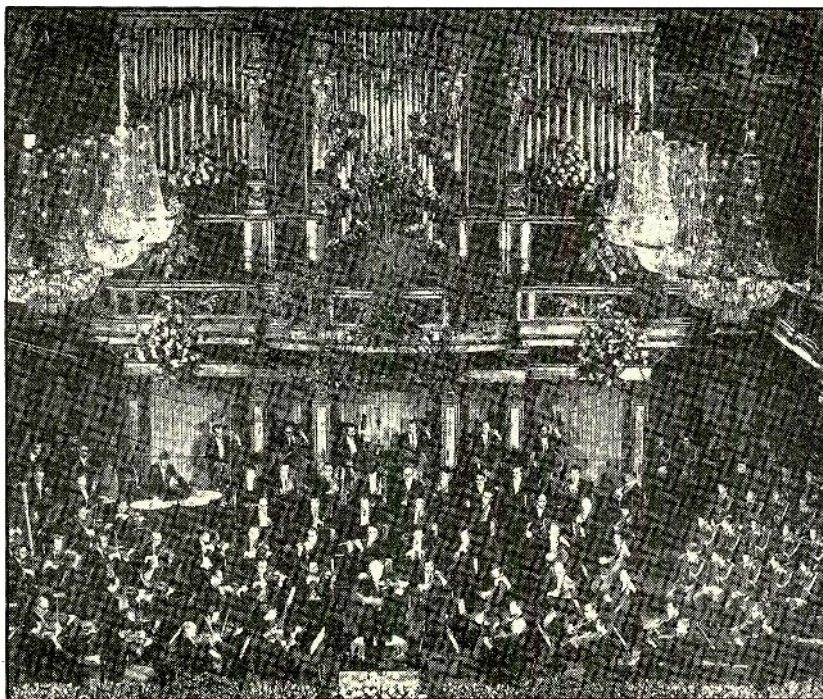
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The Pizzicato Polka and the Digital Waltz

Up until now, digital recordings have been recorded largely as an audio novelty—issued on unfamiliar labels, sold for the most part in audio shops instead of record stores, and confined to a separate “Specialty Records” section of the Schwann catalog. They have also been frightfully expensive, with Nippon Columbia’s superb Denon series priced at \$14 per disc, Telarc and other U.S. labels even higher. All this seems about to change, and it could be the record industry’s most genuine advance since the sensible, unified introduction of the stereo disc in the late Fifties. The heartening harbinger of this change is the appearance, without advance announcement, of London’s new LDR (London Digital Recording) label, the initial release of which is a two-disc New Year’s concert by the Vienna Philharmonic under Willi Boskovsky.

Instead of studio-recorded pieces collected over several years to fill a single LP, what we have here is an entire concert recorded live, with the latter portion of *Auf der Jagd* giddily encoored and Boskovsky announcing the evidently unprogrammed pieces at the end. There is applause between selections, which I could do without (and which could have been edited out), but the audience is remarkably well behaved; except for some undisturbing laughter following the rifle shot in the aforementioned polka, the only vocal contribution

I noticed during the actual playing of the music was what seems to be Boskovsky’s own humming during portions of the waltz *Bei Uns z’Haus*. Of course, the applause and the audience’s rhythmic clapping during the concluding *Radetzky* March do contribute to the sense of liveness, but the recorded sound itself makes the greatest such contribution.

It is hardly surprising that London/Decca should be the first major record company in the West to release digital recordings. (Columbia has issued material *mastered* with the Sony PCM digital system but not any actually recorded with digital equipment—except for one five-year-old completely unheralded Odyssey/Denon record of Telemann fantasias by Rampal, Y 33200.) It was London’s “frrr” series that brought the 78-rpm format to its peak shortly after World War II; the same company was the most conspicuous pioneer in stereo discs among the majors, and, to its further credit, it abstained from the quadraphonicism that proved to be one of the less admirable flashes in the audio pan. Not much information is given about the particular process used for this recording, except that it is London’s own; while technical details would be of interest to engineers and others who can understand them, what is of interest to the music-oriented collector is that *it works*. The difference it makes is demonstrated not by shattering bass-drum thwacks or contrived

gimmickry but by comfortable naturalness and utter freedom from distortion, through an extended dynamic range, in the kind of sounds that usually show a bit of strain in even the best conventional recordings—anything involving the piccolo, for example, or violins in the upper extremities of the range, or, to be sure, the bass drum and other low-end instruments. In other words, the listener does not find himself auditing a “demo disc” but simply enjoying a musical experience with *less* awareness of the electronic medium than usual. The sound is marvelously clean and open, as well as impeccably balanced in its orchestral focus. (The release is also available on cassettes, apparently the first such to be produced from a digital master; I assume they have the same characteristics, but I have not yet been able to hear them.)

As to the performances, no one need comment at this late date on the unique authority and persuasiveness of the Vienna Philharmonic in this music. Over the last two decades Willi Boskovsky, always a superb violinist and a magnificent chamber-music player, has polished his conducting appreciably, and several of the pieces recorded here go with a smoother flow than in his earlier recordings of them. *Sphärenklänge*, in particular, is more full-blooded now, and with no loss of poetry. The one disappointment is *Wein, Weib und Gesang*—not because the English title given is inaccurate (one of several lapses in labeling), but because this great waltz is shorn of its introduction, one of the most elaborate and truly symphonic the Waltz King ever penned. I cannot imagine why the introduction was omitted here, but there is an audible tape join at the commencement of the piece, which suggests the omission might have been the tape editor’s rather than the conductor’s. Otherwise, no complaints: everything else is simply delicious.

NOT the least exciting thing about this release is its price. At \$9.98, each LDR disc lists for only a dollar more than many conventionally recorded imports; if London maintains this price, it will put digital recordings in reach of discophiles who could not consider them before, and those who have invested in the sort of equipment that can display the full advantages of these discs can only be happy about that. May LDR thrive, and may the other Western giants now follow suit!

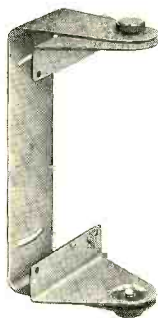
—Richard Freed

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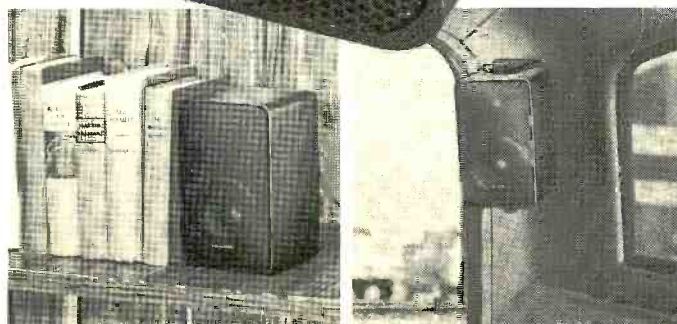
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MARIAN ANDERSON: *Schubert and Brahms Lieder.* Schubert: *Liebesbotschaft; Ungeduld; Der Tod und das Mädchen; Die Forelle; An die Musik; Suleika I; Gretchen am Spinnrade; Wiegenlied; Erlkönig; Heidenröslein.* Brahms: *Von Ewiger Liebe; Botschaft; Vergebliches Ständchen; Der Schmied; Dein Blaues Auge.* Marian Anderson (contralto); Franz Rupp (piano). RCA ARL1-3022 \$7.98.

Performance: **Rather special**
Recording: **Good**

Marian Anderson recorded this material thirteen years ago, but it has not been released until now. Considering her age at the time—she was sixty-four—she displays a remarkable amount of vocal agility here, and her art of capturing a song's essence seems unimpaired. She skillfully evokes the three distinct characters in *Erlkönig*, brings lightness and charm to *Vergebliches Ständchen*, and commands the low D for the ending of *Der Tod und das Mädchen*. But by 1966 the sumptuous Anderson tone of old was only a memory and the intonation was undependable. It is a mystery to me why this great artist is not represented in the current RCA catalog by the recordings made in her prime. **G.J.**

JAMES GALWAY: *Annie's Song.* Marais: *Le Basque.* Villa-Lobos: *Bachianas Brasileiras No. 5: Aria.* Kreisler: *Liebesfreud.* Fauré: *Dolly: Berceuse.* Mozart: *Piano Sonata in C Major (K. 545): Allegro.* Denver: *Annie's Song.* Hasse: *Tambourin.* Debussy: *La Plus Que Lente.* Trad.: *Brian Boru's March; Bel-fast Hornpipe; Spanish Love Song.* Bizet/

Borne: *Carmen Fantasy.* James Galway (flute); National Philharmonic Orchestra, Charles Gerhardt cond. RCA ARL1-3061 \$7.98, ® ARS1-3061 \$7.98, © ARK1-3061 \$7.98.

Performance: **Piquant**
Recording: **Very good**

Flute records continue to accumulate at a dizzying pace, and this latest one from James Galway is as pleasant to hear as any. Galway and conductor Charles Gerhardt occasionally get carried away by the emotional demands of the material, as in their shamelessly sentimental, exaggerated treatments of the Kreisler *Liebesfreud*, the *Berceuse* from Fauré's *Dolly*, and Debussy's *La Plus Que Lente*, and the flute is no adequate substitute for a first-rate soprano in the Villa-Lobos. But just as you get to feeling you've had it for the day with the flute, up these gentlemen come with a lively hornpipe or add half a dozen harps to make an event out of *Brian Boru's March*, and they have you at their mercy. The album is named after a gentle, folksy little tune by John Denver, which benefits here from a bit of harp-string accompaniment. In all, a featherweight but thoroughly diverting concert. **P.K.**

ERVIN NYIREGYHÁZI: *Piano Solos.* Grieg: *Sie Tanzl. Op. 57, No. 5; Der Hirtenknabe, Op. 54, No. 1; Waltz in A Minor, Op. 12, No. 2; Heimwärts, Op. 62, No. 6.* Tchaikovsky: *Waltz in A-flat Major; Romance in F Minor, Op. 5.* Tchaikovsky (arr. Nyiregyházi): *Warum?, Op. 6, No. 5.* Blanchet: *Au Jardin du Vieux Serail.* Bortkiewicz: *Travel Pictures.* Er-

vin Nyiregyházi (piano). COLUMBIA M 35125 \$7.98, © MT 35125 \$7.98.

Performance: **Individual**
Recording: **Good**

Any pianist with a style as individual as Ervin Nyiregyházi's is bound to have moments when what he does—musically, technically, or both—simply does not work. There are such moments on this record (from the same sessions that produced his Liszt set issued on Columbia last fall). Again we have to listen through wrong notes on some selections, and this time the sheer abundance of them all but destroys some interpretations. It is not the wrong notes alone, though, but the combination of them with exaggerated dynamics, inconsistent tempos, and added bass notes, all applied to composers whose names are not Franz Liszt, that makes for the unsuccessful results. One finds such here in Nyiregyházi's own transcription of Tchaikovsky's *Warum?* and in the Grieg *Sie Tanzl* (the dynamic contrast is so overdone it is vulgar) and *Heimwärts* (which has an estimable folksy rhythmic swing but suffers from the pile-on). The odd piece by the obscure Swiss composer Blanchet comes across better; it is a wonderful conglomeration of sounds in any event.

But what really saves the record are such things as the deceptively simple Tchaikovsky *Waltz in A-flat*. The middle section drags a bit, but the opening and closing sections are absolutely exquisite: great—and greatly musical—piano playing. The famous *F Minor Romance* also works wonderfully as a performance. **(Continued on page 150)**

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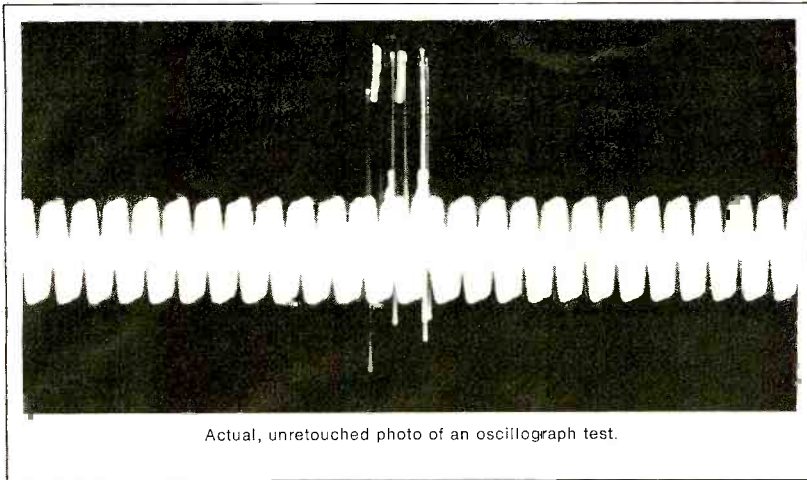
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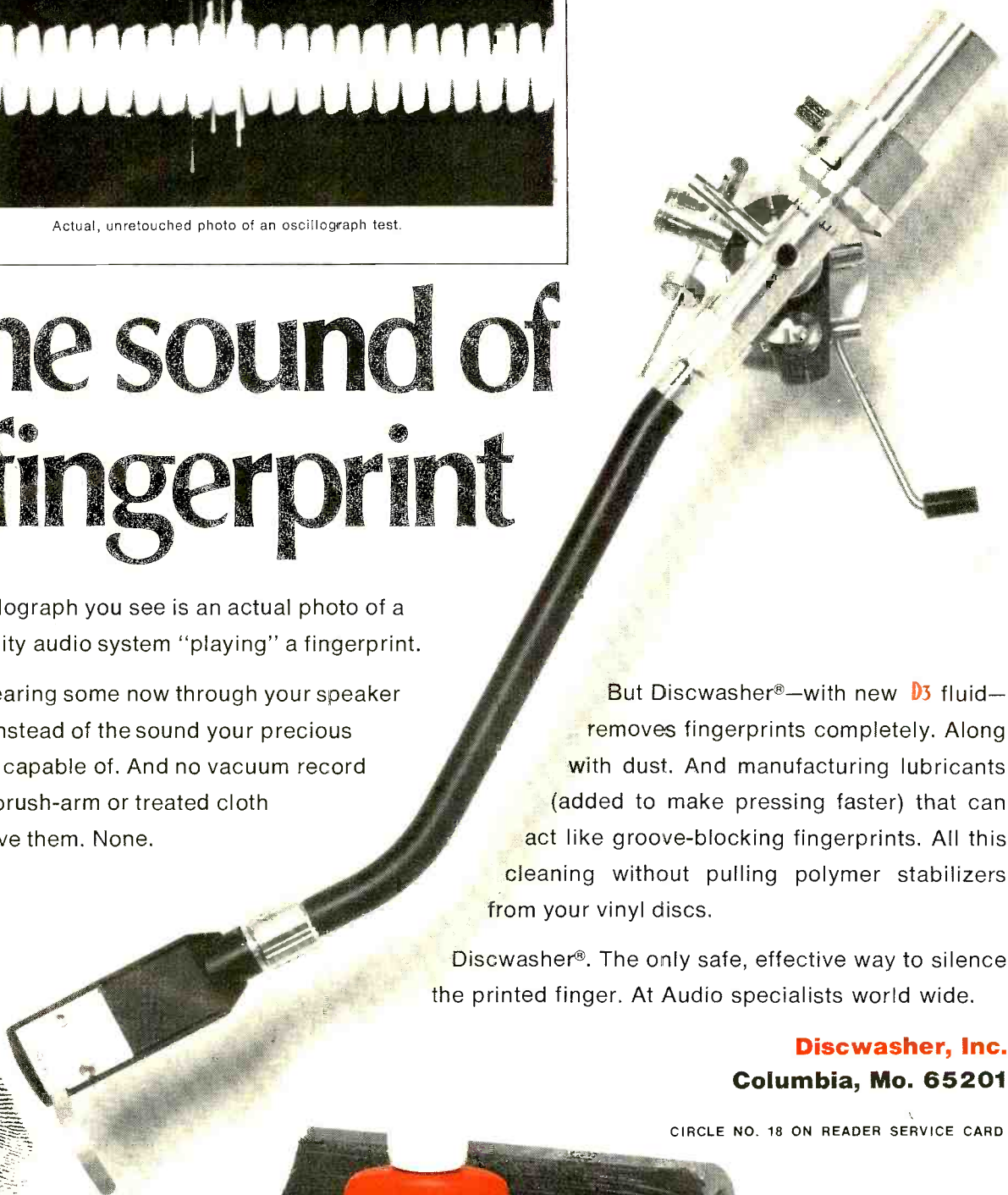
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mance (even with wrong notes and extra bass octaves), and the bounce of the little accompanimental figuration that begins the middle section is a marvel of touch. Even Grieg's *Shepherd Boy*, though its time span has been made virtually Wagnerian, is effective in its way, a way that admittedly has little to do with Grieg as we have come to know him. Finally, the Bortkiewicz *Travel Pictures* exhibit the sort of rhythmic freedom and sustenance of line that we can easily associate with great piano playing of a lost day.

I could have wished the programming of this record had been more selective (the opening selection is enough to throw anyone off), but there is much to be said, as Aldous Huxley pointed out regarding literature, for the presentation of the "whole truth" rather than just the selected elements that make for high art and tragedy. *James Goodfriend*

HERMANN PREY: Orchestrated Schubert Songs. Schubert/Liszt: Erlikönig. Schubert/Brahms: An Schwager Kronos; Memnon; Geheimnis. Schubert/Offenbach: Ständchen. Schubert/Reger: Im Abendrot; Gesänge des Harfners; Gruppe aus dem Tartarus. Schubert/Berlioz: Erlikönig. Hermann Prey (baritone); Munich Philharmonic, Gary Bertini cond. RCA ARL1-3002 \$7.98.

Performance: **Good**
Recording: **Good**

The orchestral song was created by Hector Berlioz and cultivated with great success by such orchestral masters as Liszt, Richard Strauss, Mahler, and Elgar. Berlioz and Liszt appear among the orchestrators in this interesting collection of orchestrated Schubert songs, along with Max Reger and Johannes Brahms. The result is an artistic and highly listenable sequence that nonetheless fails to alter my conviction that Schubert's songs are best as he conceived them. Unquestionably, these orchestrations by distinguished hands are worth hearing. There are two different settings of *Erlikönig*, both colorful and imaginative, but the subtler one by Liszt seems more appropriate than the more powerful one by Berlioz. The Brahms orchestrations for the two "Greek" songs to Schiller texts are very effective, but the intimate *Geheimnis* comes off less happily without the characteristic "walking" effect in the piano accompaniment. The subtle, halo-like setting for strings and flute that Reger provided for the transporting *Im Abendrot* seems ideal, but his treatment of the three Goethe *Songs of the Harp Player* is much too operatic in feeling. As for *Ständchen*, since everybody else has already arranged it, why shouldn't Offenbach? His version is quite ornate, but the song is apparently indestructible.

The issue, however, is not approval or disapproval of the settings. The producers are to be commended for searching out these orchestrations and combining them into this fascinating sequence. Hermann Prey performs with his usual skill, the orchestral playing is first-class, and so is the recorded sound. *G.J.*

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France. Hall: Jenny Rebecca. Frederica von Stade (mezzo-soprano); Martin Katz (piano). COLUMBIA M 35127 \$7.98, © MT 35127 \$7.98.

Performance: **Exquisite**
Recording: **Very good**

Frederica von Stade's artistry inspires joy and wonder. Her unflinching taste, secure technique and musicianship, and exquisitely pure tone—beguilingly warm and youthfully fresh

at the same time—may all be counted among the blessings of our musical life.

Outstanding among the songs here are *Oh! Quand Je Dors* and Debussy's *Bilitis* songs (written in the *Pelléas* style of understated sensuality). The flavorful Canteloube settings are charming, and the artist brings out more than I thought possible from the long Purcell song. This program should appeal to almost everyone, for Von Stade's charm, style, and elegance are irresistible. *G.J.*

Ravel: Chamber Music



Sketch by Hilda Wiener

NONESUCH has assembled an unusually imaginative program of Maurice Ravel's chamber music on one of the few discs that may be described as really composer- rather than performer-oriented, and it happens to be exemplary in terms of musicianship as well as programming. The one familiar component is the set of *Chansons Madécasses*, sung by Jan DeGaetani with flutist Paul Dunkel, cellist Donald Anderson, and pianist Gilbert Kalish. The few other current recordings of this work are all so persuasive that it would be rather pointless to attempt to determine a "best" among them, but, even aside from considerations of the respective couplings (which are quite intriguing also on Dame Janet Baker's L'Oiseau-Lyre SOL-298 and Dietrich Fischer-Dieskau's HNH 4045), DeGaetani and her associates offer a particularly fetching amalgam of artistry, earthiness, and all-round identification with the material, investing it with freshness and vitality, which are always especially welcome in presentations of well-known music.

On side two, a work that is *not* well known but which certainly ought to be, the *Sonata for Violin and Cello*, is set forth with similar eloquence and conviction by Isidore Cohen and Timothy Eddy. Much as I have enjoyed the Jaime Laredo/Leslie Parnas version on Columbia M 33529 (with the Ravel Piano Trio overside), I felt a more immediate and deeper response to this new one, which seems to breathe more naturally—in which, one might say, the instruments seem to *become* the music rather than merely play it. For all I know, neither Cohen nor Eddy ever saw the piece before they got together in the recording studio to tape it, but their performance suggests

a long and loving acquaintance with the work.

The side containing the *Chansons Madécasses* is filled out by relatively unfamiliar music for two pianos: the very early *Sites Auriculaires* (1897), whose two sections are the original version of the *Habanera* subsequently orchestrated for the *Rapsodie Espagnole* and the shorter *Entre Cloches*, and the tiny *Frontispice* of 1918. Paul Jacobs and Gilbert Kalish are the excellent pianists, and the fifth hand called for in the *Frontispice* is provided by Teresa Sterne, who is, of course, the guiding light of Nonesuch Records. She has not recorded as a performer before, but she played a concerto or two with the New York Philharmonic at Lewisohn Stadium when she was a teenager; her small but essential part in these proceedings finds her in the company of several of the outstanding musicians she has brought to her label in the last fourteen years or so. The engineering/producing team of Marc Aubort and Joanna Nickrenz has long been associated with Robert Ludwig, who did the mastering, and all their names are by now as assuring of technical excellence as the others mentioned here are of musical satisfaction. In short, this is a fine album, superbly executed in every respect, and a "must" item regardless of any duplications it may create in existing collections. —Richard Freed

RAVEL: Chansons Madécasses. Jan DeGaetani (mezzo-soprano); Paul Dunkel (flute); Donald Anderson (cello); Gilbert Kalish (piano). *Sites Auriculaires.* Paul Jacobs, Gilbert Kalish (piano). *Frontispice.* Paul Jacobs, Gilbert Kalish, Teresa Sterne (piano). *Sonata for Violin and Cello.* Isidore Cohen (violin); Timothy Eddy (cello). NONESUCH H-71355 \$4.96.

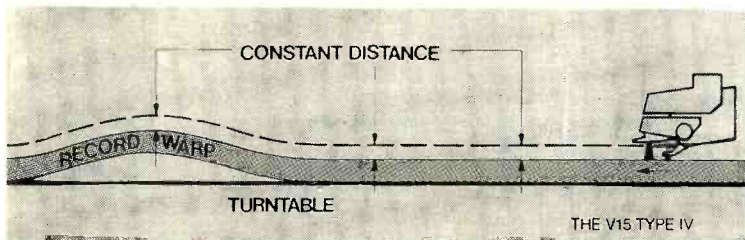
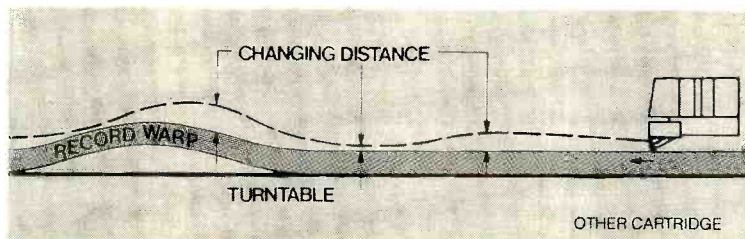
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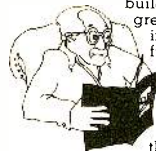
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