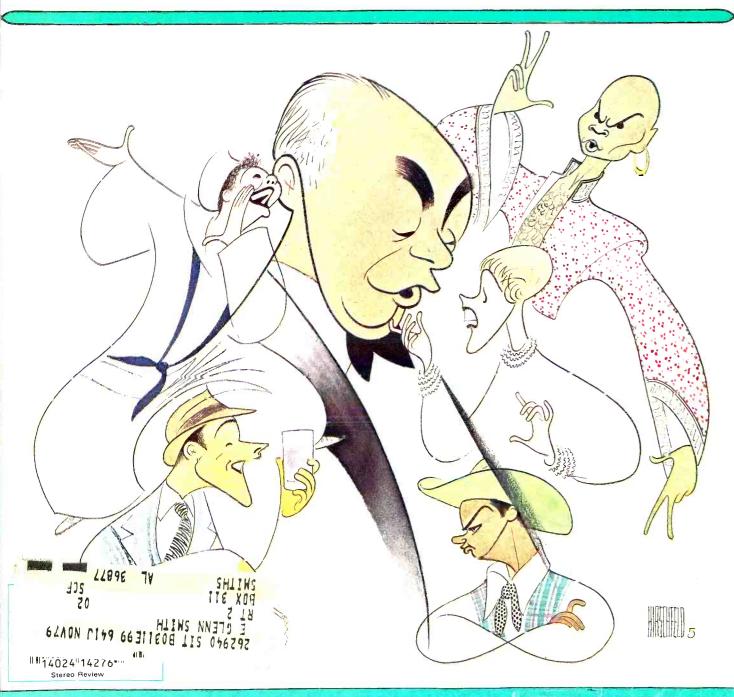
SPECIAL SECTION: THE BEST RECORDINGS OF TWO DECADES ... PLUS ... SIX INDUSTRY SPOKESMEN LOOK INTO TOMORROW'S AUDIO EQUIPMENT

# FEBRUARY 1978 • \$1.25 **Stereo Kevie** A CASSETTE DECK: PERFORMANCE VS. PRICE

Equipment Test Reports: Audio-Technica AT-605 Audio Insulators Infinity Q<sub>a</sub> Speaker System 

Marantz 2500 AM/FM Stereo Receiver Sansui AU-717 Integrated Amplifier . Sanyo RD5300 Cassette Deck

# **RICHARD RODGERS: DEAN OF THE AMERICAN MUSICAL THEATER**



# LAST YEAR'S REVIEWS PRESENTED US WITH A TOUGH ACT TO FOLLOW.

"IT CANNOT BE FAULTED." SA9500 - Stereo Review

TX9500 – Popular Electronics

"CERTAINLY ONE OF THE BEST... AT ANY PRICE." TX9500 - Modern HI FI



# "AS NEAR TO PERFECT AS WE'VE ENCOUNTERED."

# WE STARTED WITH THE BES ER.

amps and tuners some of the highest compliments ever: Last year, the experts paid Pioneer's integrated

amps and tuners. Amps and tuners that would not only surpass anything we'd ever built before, but anything anyone ever built before. The challenge was obvious: to build even better Heres how we did it.

# When Popular Electronics said our TX9500 THE NEW PIONEER TX 950011 TUNER: EVEN CLOSER TO PERFECT.

tuner was as "near to perfect" as they'd encountered, they obviously hadn't encountered our TX950011. It features technology so advanced, some of it wasn't even perfected until this year.

our 5-Our front end, for example, features three newly developed MOS FETs that work with 8.8dBf. In mono. In English, this means you can pull in beautiful FM reception no matter our 5-gang variable capacitor to give the X950011 an incredible FM sensitivity of how far you live from the transmitter. gives you two. A wide band with a surface Where most tuners give you one band width for all FM stations, the TX950011 acoustic wave filter to take advantage of strong stations, and a narrow band

> and noise from weaker ones. (Distortion measured in stereo at one kilohertz is an incredibly low 0.07% in the wide band; and 0.25% in the narrow band. Both well below the threshold of human hearing.) with five ceramic filters to remove all the interference Where conventional multiplex circuits cut out

antenna perfectly without an oscilloscope Plus a multipath switch that lets you align your doesn't. It features an exclusive integrated circuit some of the frequencies that add depth and presence to music, the multiplex circuit in the TX950011 that's far more accurate than anything else around

broadcast starts. set the recording levels on your tape deck before the proper recording levels off most tuners, the TX950011 provides you with a tone generator that lets you pre-And where you simply have to guess about the

beautiful as your tuner. So your tapes can sound just as clear and

# THE NEW SA9500II AMPLIFIER. HOW TO GET THE MOST OUT OF THE BEST

match it. had no choice but to create an amplifier that could After building one of the world's best tuners, we

watt integrated amp that was designed The result is the new SA9500II. An 80\*

> thing you can possibly hear distortion to less than 0.1%. Again, well below anyparallel push-pull circuit that reduces total harmonic to let you get everything out of your tuner. Perfectly Our output stage, for example, features a new

comes with a separate power transformer for each channel, instead of the usual single transformer or both. to all but eliminate cross-talk, the SA95001

and bass. They're calibrated in 2 decibel click stops, ways to get the most out of your music. which means you have a virtually endless variety of And where some amps give you two, or three tone controls, the SA950011 gives you four. Two for regular treble and bass, and two for extended treble

But that's only the beginning. To get the most out of your cartridge, the 950011 has a switch that lets features an incredibly high phono overload level of 300 millivolts. With no more than 0.2 dB variation from the RIAA curve. So even the most complicated passage on one of today's highly engineered records will sound exactly the way it was recorded in the turer's optimum capacitance. And to get the most out of your records, our three-stage phono equalizer you "tune" the amplifier to the cartridge manufac-

studio.

more thar put at 8 ol

TX9500II

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E NEW PI AMPS AND TUNERS. ONEER

BUS PIONEER ELECTRONICS CORP. 1977

TX850011 SA850011

CIRCLE NO 52 ON READER SERVICE CARD

TX650011 SA750011

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equipment Obviou isly, both the SA950011 and the

TX950011

are very sophisticated pieces of t. But all of the engineering skill that making them has also gone into every r and amplifier in our new series II. what the price, no matter what the

specificatic And tha o appreciate at's something you don't have to be

an expert

No matter

ons.

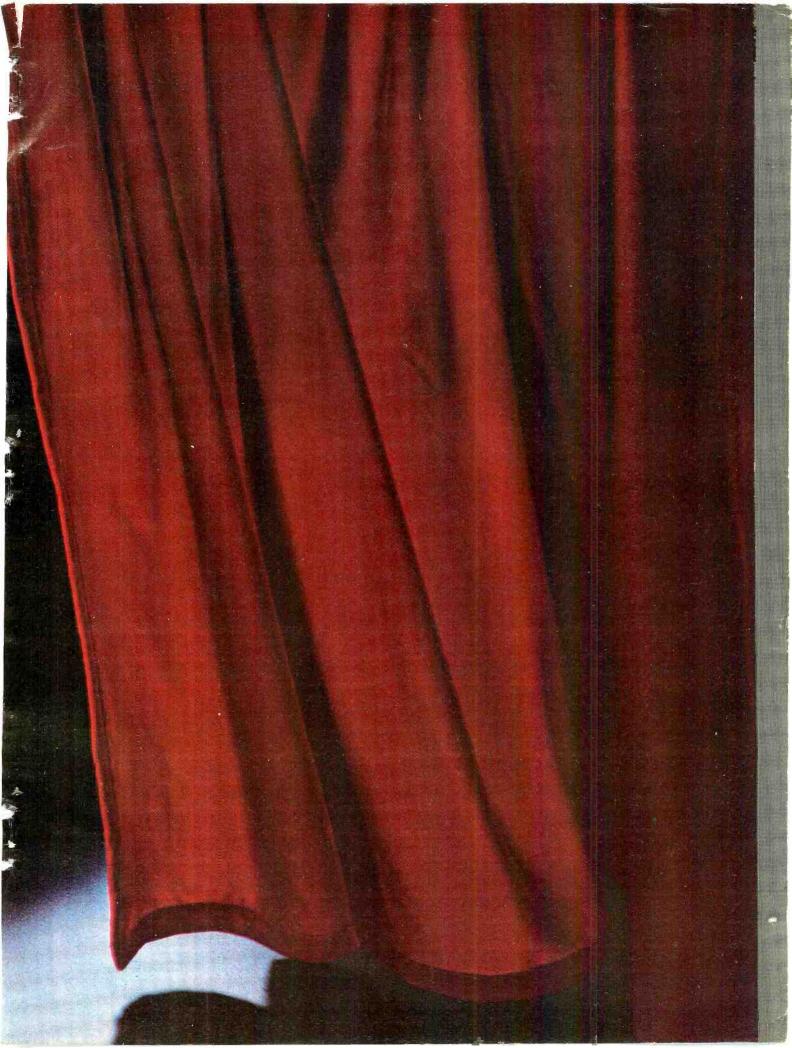
other tune went into i

|  | SA950011<br>TX950011           | SA850011<br>TX850011                          | SA750011          | SA6500II<br>TX6500II | SA55001<br>TX55001 |
|--|--------------------------------|---|-------------------|----------------------|--------------------|
| POWER MIN. RMS.<br>20 TO 20,000 HZ   | 80                             | 8   | 45                | 30                   | 15                 |
| TOTAL HARMONIC<br>DISTORTION   | 0,1%                           | 0.1%  | 0.1%              | 0.1%                 | 0.5%               |
| PHONO OVERLOAD   | 500mV                          | 250mV   | 200mV             | 200mV                | 130mV              |
| INPUT: PHONO/AUX/<br>TAPE  | 2/1/2                          | 2/1/2   | 1/1/2             | 1/1/2                | 1/1/1              |
| SIGNAL TO NOISE<br>RATIO   | 95dB                           | 95dB  | 95dB              | 93dB                 | 87dB               |
| FM SENSITIVITY<br>(IHF '58)  | 1.5uV                          | 1.8uV   | not<br>applicable | 1.9uV                | 1.9uV              |
| SELECTIVITY  | (wide) 35dB<br>(narrow) 85dB   | (wide) 35dB<br>(narrow) 80dB                  | not<br>applicable | 60dB                 | 60dB               |
| CAPTURE RATIO  | (wide) 0.8dB<br>(harrow) 2.0dB | (wide) 0.8dB not<br>(narrow) 2.0dB applicable | not<br>applicable | 1.0dB                | 1.0dB              |
| U.S. Pioneer Bectronics Corp., 85 Oxford Drive, Moonachie<br>New Jersey 07074. | Electronics<br>1.              | Corp.,85C                                     | xford D           | rive, Mo             | onachi             |
| *Minimu  | Jm RMS                         | Minimum RMS continuous power out-             | snon              | ower                 | - out-             |
|  |                                |   |                   |                      |                    |

0.1% total harmonic distortion. num RMS continuous power out-nms, from 20 to 20,000Hz, with no

3 ON Carporens

0 **7E BRING IT BACK ALIVE.** 



| CIRCLE | ND. 21 | ON   | READER           | SERVICE | CAPD  |  |
|--------|--------|--|------------------|---------|-------|--|
|        |        | and the local diversity of the local diversit | the later little | OF ULLE | OHILD |  |

|  |                               |                                | ¥1                             |                              |                               | Iready you                     | ir system so                    | ounds bern                      |                               |
|--|-------------------------------|--------------------------------|--------------------------------|------------------------------|-------------------------------|--------------------------------|---------------------------------|---------------------------------|-------------------------------|
| MODEL  |                               | <b>4000</b><br>D/II            | <b>4000</b><br>D/I             | <u>2027</u>                  | 2000<br>E'lli                 | 2000<br>E/II                   |                                 | 2000<br>E                       | 2010                          |
| FREQUENCY  | 10Hz-50KHz                    | 15Hz-50KHz                     | 15Hz-45HHz                     | 20Hz-20KHz                   | 20Hz-20KHz                    | 20Hz-20KHz                     | 20Hz-20KHz                      | 20Hz-20KHz                      | 20 <b>Hz-20K</b> Hz           |
| RESPONSE   | 3 db                          | ≓3 db                          | 主 3 db                         | 二 1.db                       | 土 2/db                        | 土 2 db                         | = 3 db                          | 土 3 db                          | ± 3 db                        |
| TRACKING<br>FORCE RANGE  | 34-11∕4 gm                    | .%-1½ gm                       | 1-1% gm                        | %-1% gm                      | 34-1½ gm                      | 34-1½ gm                       | 1-2 gm                          | 1 <b>%-2½</b> gm                | 11/2-3 gm                     |
| SEPARATION:<br>15Hz to 1KHz<br>1KHz to 20KHz<br>20KHz to 50KHz<br>20 Hz to 500Hz<br>500Hz to 15KHz<br>15KHz to 20KHz | 2€ db<br>23 db<br>15 db       | 26 db<br>21 db<br>15 db        | 24 db<br>20 db<br>15 db        | 20 db<br>30 db<br>25 db      | 20 db<br>28 db<br>20 db       | 20 db<br>25 db<br>18 db        | 18 db<br>23 db<br>15 db         | 18 db<br>23 db<br>15 db         | 16 db<br>21 db<br>13 db       |
| I. M. DISTORTION   | 2%                            | .2%                            | .2%                            | .08%                         | .1 %                          | .15%                           | .2%                             | .2%                             | .2%                           |
| @ 3.54 cm/sec  | 2KHz-20KHz                    | 2KHz-20KHz                     | 2KHz-20EHz                     | 2KHz-20KHz                   | 2KHz-20KHz                    | 2KHz-20KHz                     | 2KHz-20KHz                      | 2KHz-20KHz                      | 2KHz-20KHz                    |
| TYLUS  | .2 mil                        | 2 mil                          | .2 mil                         | 2 x 7 mil                    | 2 x 7 mil                     | . :2 x .7 mil                  | 2 x 7 mil                       | .3 x 7 mil                      | 7 mil radius                  |
|  | - bi-radial                   | bi-radial                      | bi-radi∈l                      | elliptical                   | elliptical                    | elliptical                     | elliptical                      | elliptical                      | spherical                     |
| FFECTIVE<br>P MASS   | 4 milligram                   | .4 milligram                   | .4 milligram                   | .2 milligram                 | 6 milligram                   | 6 milligram                    | 6 millig <b>ra</b> m            | 9 milligram                     | 1 milligram                   |
| COMPLIANCE   | 30≽10*                        | 30x10*                         | 30x10 <sup>-#</sup>            | 30x10*                       | 20x10*                        | 18x10 <sup>-4</sup>            | 17x10 <sup>-4</sup>             | 16x10 <sup>4</sup>              | 14x10 <sup>-4</sup>           |
|  | dyne                          | cm/cyne                        | cm/dyne                        | cm/dyne                      | cm/dyne                       | cm/dyne                        | cm/dyne                         | cm/dyne                         | cm/dyne                       |
| TRACKING<br>A LITY   | 32 cm/sec<br>@ 1KHz<br>@ 1 gm | 32 cm/sec<br>@ 1KHz<br>@ 1¼ gm | 30 cm/sec<br>@ 1KHz<br>@ 1½ gm | 38 cm/sec<br>@1KHz<br>@.9 gm | 32 cm/sec<br>@ 1KHz<br>@ 1.9m | 28 cm/sec<br>@ 1KHz<br>@ 1¼ gm | 28 cm/sec<br>@ 1 KHz<br>@ 1½ gm | 28 cm/sec<br>@ 1KHz<br>@ 134 gm | 32 cm/sec<br>@ 1KHz<br>@ 2 gm |
| C ANNEL  | withi⊐ 1 db                   | within 1 db                    | within 1½ db                   | within % db.                 | within 1 db                   | within 1¼ db                   | within 1½ db                    | within 1½ db                    | within 1½ db                  |
| BALANC   | @ ⁼KHz                        | @ 1KHz                         | @1KHz                          | @ 1KHz                       | @ 1KHz                        | @ 1KHz                         | @ 1KHz                          | @ 1KHz                          | @ 1KHz                        |
| INPUT LOÀD   | 100K ohms/<br>channel         | 100K ohms/<br>channel          | 100K ohms/<br>channel          | 47K ohms/<br>channel         | 47K ohms/                     | 47K ohms/<br>channel           | 47K ohms/<br>channel            | 47K ohms/<br>channel            | 47K ohms/<br>channel          |
| TOTAL  | under 100                     | under 100                      | under 100                      | 300                          | 400-500                       | 400-500                        | 400-500                         | 400-500                         | 400-500                       |
| CAPACITANCE  | pf/channel                    | pf/channel                     | pf/channel                     | pf/channel                   | pf/channel                    | pf/channel                     | pf <b>/channe</b> l             | pf/channel                      | pl/channel                    |
| OUTPUT   | <b>3</b>                      | 3                              | <b>3</b>                       | 3                            | 4.5                           | 4.5                            | 7                               | 7                               | 7                             |
| @ 3.54 cm/sec  | mv/channel                    | mv/channel                     | mv/chan∎el                     | mv/channel-                  | mv/channel                    | mv/channel                     | mv/channel                      | mv/channel                      | mv/channel                    |

No mater what system you own, a new Empire phono cartidge The advantages of Empire are the end of The advantages of Empire are the end of The advantages of Empire are the end of The advantages of Empire are under the original way our diauch less will ne your records will last longer under way our diauch less will the advantages of its magnets and coils. This is movies for the record surface and insures longer record life. The allows for a tighter fit in its positioning and on the solution of the original records will be the resolution of the original records will be the resolution of the original records of the solution of the original records and the resolution of the original records and the resolution of the original records and the resolution of the original records and the solution of the original records of the solution of the original records and the record solution of the original records and the solution of the original records of the original records and the solution of the original records of the solution of the original records of the solution of the original records of the original records of the solution of the original records of the origina

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COVER: Caricature of Richard Rodgers (and a few of his theatrical children) by Al Hirschfeld

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# Editorially Speaking

By William Anderson



# TAKING IT OFF YOUR INCOME TAX

**R**UTH DRAPER, the most accomplished monologist of this and possibly any other century, used to do a long, hilarious, and oddly touching set-piece called The Italian Lesson (still available, thank Providence, on Spoken Arts SA 779) which sketched the predicament of a society matron who finds herself, "midway along the pathway" ("Nel mezzo del cammin' ") of her life, hopelessly overcommitted to a schedule of obligations, familial and social, that would gag a computer. About to dash out of the house on her way, successively, to a funeral, lunch at the Plaza, a hospital committee meeting, a philosophy class, and a bridge lesson, she pauses breathlessly in mid-flight to instruct her secretary to send checks to the charity appeals she has already sorted out on her desk: "\$10 under the silver frog, \$5 under the jade egg.

I am reminded of this Mad Scene every year at this time (I am writing this in mid-

December) when I come to sorting out and writing checks to the appeals that have been accumulating on my desk over the year. I do not use Mrs. Clancy's frog-and-egg system, but tend to address myself to each appeal individually. That turns out to be rather more time-consuming than I would like, so you can imagine how intrigued I was to learn the other day about what would appear to be a means of taking at least part of this chore off my hands. There is before the Congress just now a piece of legislation called the Richmond Arts and Education Bill (H.R. 1042) which proposes to place a check-off box, for voluntary contributions to the arts, on the front of our Federal income tax forms. There is one other such box there now, as you may know, for those who wish to fatten the Federally administered fund for needy politicians. I don't know just how popular that box has been, but sanguine extrapolation from information in a recent

> J MARKS-HIGHWATER RICK MITZ

LINCOLN PERRY PETER REILLY CHARLES RODRIGUES

ERIC SALZMAN STEVE SIMELS CRAIG STARK

JOEL VANCE

Harris poll on "Americans and the Arts" indicates that an "arts box" might raise as much as \$1.8 billion a year.

Perhaps recognizing the juicy attractiveness of that figure to his fellow Congressmen, Rep. Richmond (D-N.Y.) has built a few fences around it in his bill: the money would be earmarked for either the Arts or the Humanities Endowment (or both), its use would be restricted to creative (not administrative) purposes, and its availability would not affect Congress' already established annual appropriations for the National Endowments.

I have long been a very vocal supporter of at least some government involvement in the arts, but in this case I would like to play Devil's Advocate: I don't believe the fence can be built that will shield \$1.8 billion worth of catnip from the wiles of the Washington bureaucracy. First, though the funds would be earmarked for the National Endowment, Sen. Ribicoff (D-Conn.) has already moved to put that office under the control of HEW or the Dept. of Education-which is to say to remove it from the control of the electorate. Second, \$1.8 billion a year means more than a desk, a telephone, and a checkbook. Some kind of accountability is necessary in that fiscal stratosphere, meaning a permanent (civil-service) staff, feasibility studies before (and effectiveness studies after) grants are made, reports, publications, junkets, and even maybe (yum, yum!) an Edifice. Third, can anyone really imagine that Congress would give more money to an outfit that already has \$1.8 billion yearly to play with?

And so, though it's a chore, I prefer to go on writing my own checks, placing my little tax-exempt grants where they will do my personal concerns the most good. There is, for instance, that appeal I just received from my old college glee club. If they are doing half what we were in my day (from Billings to Stravinsky, with Mozart, Brahms, and Bruckner in between), they richly deserve my help. One thing is certain: they won't be getting any from the National Endowment.

# **Stereo Review**

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The patented Altec "Tangerine™" radial phase plug, for example, is one of our most recent breakthroughs, and it's built right into the compression drivers on our Models 15 and 19. Unlike old circumferential phase plugs, our new radial design actually widens your high-frequency bandwidth. So now you can get super-high efficiency and a range of highs you've never heard from a compression driver.

At the same time, we've also enhanced low-frequency response.

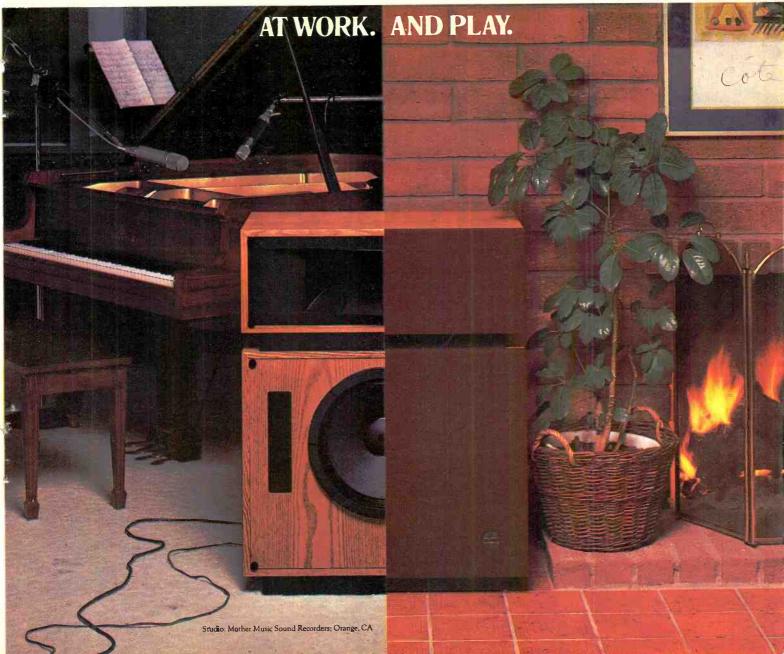
Our new computer-designed, tuned and vented enclosure gives you the best ratio of lower limit vs. sensitivity.

Finally, we improved the dividing network with a new frequency-selective, dual-range equalizer. You'll get smooth transitions without the roughness and distortion associated with ordinary crossover designs.

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FFT

The famous PRO/4AA is a tough act to follow. After all, its wide dynamic frequency response with a deep rich bass and crystal clear highs made it the world's most asked for stereophone. But aur audio engineers had a few innovative ideas on how to develop a whole new pro. One that sounded so fantastic, you'd almost think your old records and tapes had turned into a whole new music library. And one that was so comfortable, you'd never want your records or tapes to end.

The result is a totally new standard in stereophones: the PRO/4 Triple A. Because the new Koss PRO/4 Triple A

expands the realm of pure sound with a freshness and life-like intensity every music lover will want to hear. Indeed, with a frequency response from 10 Hz to 22kHz, the Triple A offers a full bandwidth dynamic Sound of Koss that makes every note blossom to its fullest harmonic growth. Add to that the human-engineered, contoured, Pneumalite® earcushions that provide both comfort and a flat, low bass response to below audibility, and you've got a whole new state-of-theart stereophone. And while the new Triple A's extra large voice coil, and oversize diaphragm mix the music in

your head, its extra light construction and unique Pneumalite® suspension dual headband let you float, hour upon hour, unconfined through your private realm of listening pleasure.

Ask your tavorite Audio Dealer to show you the new Koss PRO/4 Triple A. And write c/o Virginia Lamm for our free full-color stereophone catalog. But if you really want to see how great the new Triple A is, take your favorite records or tapes with you to your Audio Dealer and listen to them thru the new Koss PRO/4 Triple A. The difference you hear is why we say: "hearing is believing".

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**KOSS** stereophones hearing is believing

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Total Energy Response is the uniform radiation of sound throughout the whole listening area —at all frequencies. And it makes an unquestionable difference in the stereo sounds you hear.

Most speakers are to one degree or another directional. That is, part of the room in front of the speaker gets the full sound. Bass, treble and midrange. While parts of the room to the sides of the speaker get just a fragment of the sound. (See Fig. A)

It's precisely this fault we set out to correct. Because others may tell only part of the story. Often with just one response curve measured from just one position-their optimum position.

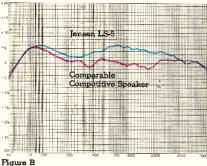
However their results don't look so favorable when the test microphone is



moved "off-axis" that is, to the side instead of directly in front of these speakers. Figure B illus-

trates this. It is a Total Energy Response curve, taken with test micro-

phones in all positions. When comparing the Jensen (blue line) with a comparably priced "flat" speaker (red line), you can see how deficient the other speaker is in total radiated energy in the mid and mid-high frequencies. This midrange deficiency is unfortunately very common amongst speakers, and gives many so-called "flat"



Total Energy Response Curve

response speakers a very "thin" sound. The Jensen Lifestyle speaker; on the

other hand, demonstrates true Total Energy Response. Uniform radiated



power-at all frequencies-throughout the whole room.

These speakers were conceived, designed and tested for this. Tested from every spot in anechoic "dead" rooms, reverberation "live" rooms, and simulated living rooms.

Our finished products: remarkable dispersion for the hard-to-disperse high frequencies... 160° or 170° wide, depending on the model. Also expanded dispersion

You can see how the sound from a evenly throughout a room. And when you're in your own listening room ...you can hear it.

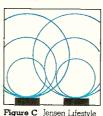


Figure C Jensen Lifestyle LS-5 Dispersion

What does all this mean to you? 1. It means that with Jensen Lifestyle speakers, you'll be able to hear all of the frequencies, all of the time, in almost any



part of the room. Not just the bass if you're to the side of the speakers. And not just the treble if you're in front of them.

2. Excellent stereo imaging. You hear everything that both speakers are putting out. Almost anywhere in the room. Unlike listeners of other speakers, who can fall victim to gaps in the response characteristics, or "hole-in-the-middle" stereo.

3. Excellent balance. Many other speakers are hot on treble, or bass. or both. But all that really means is that the midrange is often neglected. Jensen sends the all-important midrange throughout a room every bit as much as the highs and lows.

4. Total Energy Response is achieved in Jensen speakers without any loss of efficiency. Which means a moderate output amp or receiver is still all you need for great

performance. Not a big super-amp.

### What gives Jensen Total Energy Response?

A number of features. First, the extremely wide dispersion of the Lifestyle Tuned Isolation Chamber™ midranges.

Especially important are Jensen's two tweeters: a 160° dispersion cone direct radiator, and the 170° dispersion Mylar® Sonodome® tweeter. The sound input to each of these drivers is precisely

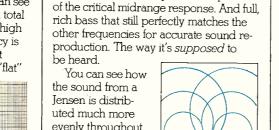
monitored by Jensen's exclusive Comtrac<sup>®</sup> crossover network, which insures uniform energy transfer between the woofer. midrange, and tweeter.

For final command of the Jensen Lifestyle's sound, behindthe-grille controls are featured. These controls let you adjust the treble, and in some cases, the midrange, to the characteristics of your individual room.

And with Total Energy Response... there's more music to control.

### Hear the difference yourself...

Stop by your local Jensen dealer and hear for yourself the difference Total Energy Response makes. It's the reason why Jensen Lifestyle speakers sound better than any comparable speaker.



For the name and location of your nearest Jensen dealer, write: Jensen Sound Laboratories, Division of Pemcor, Inc., 4136 N. United Parkway, Schiller Park, IL 60176.



# LETTERS TO THE EDITOR

### Maria Callas

• I want to thank William Livingstone for his moving tributre to Maria Callas ("The Opera File," December 1977), for he has articulated the thoughts and feelings of all of us who cherish her artistry. Like his friends, my friends comforted me when Callas died as if I were a member of her family.

As a personal tribute, I returned to her first recording of Tosca and played the second and third acts. Once again her incredible ability to communicate a full range of emotions through the voice alone was as startling as when I first experienced it in 1961. At that time I was a teenager who had just discovered opera, and I had hoped to receive for Christmas a recording of Aïda with another singer. Instead, I received Tosca with Callas. Di Stefano, and Gobbi. I was bitterly disappointed-until I played the recording. I became an instant admirer of Callas after hearing her first "Mario, Mario." My sister, who has no interest in opera whatever, came into the room during the last scene, when Tosca discovers Cavaradossi's death, and asked, "Who is that woman singing?" Such was Maria Callas.

I totally agree with Mr. Livingstone's recommendations of Callas recordings. I have all the ones he mentioned, and I am pleased to learn that someone else shares my love for Callas' version of "Printemps qui commence" from Samson et Dalila. This is my favorite, and I can never listen to it casually. Who can resist that dark compelling voice, which through phrasing, clarity of diction, and subtle shifts in tempo communicates a woman's longing for love? Samson didn't have a chance.

SIDNEY E. MORRISON Los Angeles, Calif.

### **Disco Defense**

The most telling line in the defense of disco by Paulette Weiss in December's "Pop Beat" was that "complaining [about it] is as futile as shaking your fist at a hurricane." I sense in this her own realization of the potentially disastrous effects of this rather exploitative form of junk pop music. Besides this,

her if-you-can't-beat-'em-join-'em reasoning in the last paragraph was quite amusing. BRYANT MCDANIEL College Station, Texas

### **Christmas Questions**

• I was amused by your December 1977 cover and its implicit acknowledgment that most of our Christmas hi-fi goodies these days originate in the Far East. I have two questions: (1) Have the Japanese commercialized Christmas as much as we have? (2) Where was the cover photo taken? (I like the color scheme).

RAYMOND VALDES Cleveland, Ohio

Technical Director Larry Klein replies: (1) Yes—if not more so. A possible source of in-



spiration for our cover was the accompanying picture I took in Tokyo late in November several years ago. The Ginza was already festooned with banners proclaiming Happy Merry to all. One of my hosts explained that for the Japanese, Christmas is not a religious holiday. I assured him that these days things aren't too much different in the U.S. (2) STE-REO REVIEW'S December cover was shot in Park Avenue Audio's elegant showrooms which conveniently happen to be only a few blocks from our New York offices. We herewith apologize to Mr. Yetkin, the proprietor, for not crediting his establishment and thanking him for his help.

## **Unrecognized Delay**

@ I was both happy and disappointed with Ralph Hodges' "Audio Basics" column on movie sound in the December 1977 issue. Dolby Laboratories deserves much credit not only for bringing the benefits of Dolby noisereduction processing to motion pictures but also for including in their theater systems such other high-fidelity features as Sansui QS matrixing and (what the column neglected to mention) Sound Concepts time-delay equipment. All of the one hundred to two hundred theaters thus far equipped for Dolby and stereo-plus-derived-rear-channel playback of the 35-millimeter prints of Star Wars and Close Encounters of the Third Kind also have a factory-modified Sound Concepts SD-50 to process the rear-channel sound. During installation, a Dolby technician sets the delay to match the theater's individual acoustics. The combination of exceptionally low noise, wide dynamic range, and tunable delay times of the SD-50 suit it for this application.

> JOEL M. COHEN President, Sound Concepts, Inc. Brookline, Mass.

### Stereo Imaging

✤ I find B. R. Billings' letter in the December issue about poor stereo separation very interesting, but my experience has been just the opposite of his. I play all my stereo records through four speakers via a Sansui QS synthesizer, and the degree of front-to-back separation is determined by how much separation and out-of-phase information is in the program material. All the new stereo records I've purchased lately have delivered outstanding surround sound through this system. I haven't been disappointed once.

> JAY L. RUDKO Elmendorf AFB, Alaska

• Congratulations to B. R. Billings for beating me to the mailbox! I agree 100 per cent with his criticism of the disgraceful lack of separation in stereo recordings made in the past few years. Although Ralph Hodges' October and November "Audio Basics" columns were tremendously helpful, his suggestions about speaker placement cannot solve the problem of nonexistent separation. I've spent much time and money getting my speakers into the right positions, but so far as separation goes I may as well have placed them side by side or stacked them in a corner!

What happened to the absolutely fantastic separation we used to get on most of the recordings by the Beatles, Jimi Hendrix, the Rascals, Iron Butterfly, and the Rolling Stones, to name a few? I was particularly disappointed with Boz Scaggs' "Silk Degrees"; the potential for great separation was there but wasn't utilized, and the great music is tar-(Continued overleaf) nished. A sign of changing times? I sincerely hope not. I will admit that the newer recordings by Santana, the Eagles, War, Steve Miller, Janis Ian, and Jackson Browne make me somewhat happier, but for me Frampton never came alive. Bring back the great Beatles separation!

> JERRY MOREHOUSE Muskegon, Mich.

The so-called separation "problem" lies not in the disc quality but in the maturity of the engineers and producers of the new records, and I say "Three cheers!" to that. They are finally using stereo as it was first intended—to simulate a live performance. I wonder if Mr. Billings ever went to, say, a Beatles concert where the vocals all came from the right and the instruments from the left. Take George Martin's production of the Beatles on nearly any of the pre-"Sgt. Pepper" work and compare it with his production of, say, America, and you'll see my point.

> JEFF HOWARD Gadsden, Ala.

### Impressive Section

Reading Joel Vance's December review of the Section's "Fork It Over" prompted me to pass along some information that might interest other readers who, like me, are nearly as impressed by the hard work that goes into



Mfg. in USA by Soundcraftsmen, Cal. 92705. For NEAREST DEALER ph. 714 - 556-6192 CIRCLE NO. 62 ON READER SERVICE CARD building a music career as by the music itself.

Last summer I attended two concerts at the Blossom Music Center in Cuyahoga Falls, Ohio. The two headliners were James Taylor and Jackson Browne. In both cases, the opening act was the Section. That alone is not remarkable; any band in the opening-act stage of its career is likely to provide this service for several headliners in the course of a tour. However, after intermission in each concert, the Section returned to perform as the stage band for the headliner. The music was startlingly faithful to Taylor's and Browne's original recordings, which is explained by the fact that members of the Section were studio musicians at many of the recording sessions. Moreover, it turns out that the Section was actually touring with both singers in the same concert season, and had acted in an identical capacity (namely, opener and stage band) for at least some of Crosby, Stills, and Nash's dates that summer as well.

Pondering just the logistics involved in this venture had a dramatic effect even on my generally boggle-safe mind. Aside from my musical impressions of the Section (which are favorable indeed), I have to admire their ambition and stamina. But I advise anyone considering a career as a rock-band roadie to avoid the Section for fear of hypertension, fatigue, and related occupational hazards posed by their kind of concert schedule.

> BOB MCCANN Musical Midget Productions Columbus, Ohio

## **Classical Epidemic**

I think James Goodfriend's attempt in his November 1977 "Going on Record" column to explain the relatively small sales of classical records misses the obvious reason: relatively few people are interested in buying them. I would be interested in seeing the "statistics" that show more Americans attend musical events (whatever this term may encompass) than sports events, which would seem to imply an epidemic of interest in classical music. Cultural interest of such magnitude should at least be reflected to some degree in record sales. But in fact, to quote the July 1977 "Editorially Speaking," the per capita annual expenditure on classical records in this country in 1975 came to sixty cents. Assuming that a hundred times this figure is not an unreasonable amount for someone with a serious interest to spend in one year, it follows that only about 1 per cent of the population purchases classical records.

The argument that the unavailability of classical records is in large part responsible for their low sales does not really stand up. This is not a product that is heavily promoted, but one purchased by sophisticated consumers with specific desires. With a little effort virtually any record can be obtained, granted that the more inconvenient method of mail order might have to be resorted to. The nature of the market for classical music is such that marketing techniques and availability can have at most a marginal effect on sales.

> ALLEN W. RYAN Maplewood, N.J.

Mr. Goodfriend replies: Mr. Ryan's letter is interesting because it exhibits exactly the sort

(Continued on page 12)

# Free details on a different kind of record club

offering... BACH, BEETHOVEN, BRAHMS, FLEETWOOD MAC, LINDA RONSTADT, CHICAGO, KANSAS BARRY MANILOW, BOSTON, ELTON JOHN, JAMES TAYLOR, JEAN-LUC PONTY, CROSBY, STILLS & NASH, STEVE MILLER BAND, PETER FRAMPTON, BARBRA STREISAND, EAGLES, CHUCK MANGIONE and every other composer and artist in print.

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

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of thinking indulged in by the corporate heads of most large record companies today. By and large, they are not "record men" but dispassionate executives whose view is that product is product, no matter what you call it, and that nothing counts except what is measurable in terms of sales and profits. That view is the reason why such executives are interchangeable from one company to another, even from one field to another, and it is also why such admittedly marginal businesses as classicalmusic recording have such a hard time. The view of the real record man, on the other hand, is that there is a commitment to produce recordings of classical music on the basis of other values, and that the set task is then to do it both as well and as profitably as possible.

Mr. Ryan's position admits no such other values, and hence nothing can follow from it but, at best, temporary toleration for a struggling sector of the record industry.

For those who admit such values, however, the problems of marketing and promotion are exceedingly important, for in these areas lie the possibility of making classical-music recording less marginal. Really sophisticated consumers know how to buy anything they want (not just classical records); it is among somewhat less sophisticated consumers that inroads can be made. My point was simply that a great number of people who lack either the sophistication or the strength of desire to pursue a wanted record to its sometimes obscure source are quite likely to buy it if they are



# TANDBERG ALONE OFFERS REEL-TO-REEL PERFORMANCE FEATURES IN A CASSETTE DECK

# 3 Separate Heads/3 Motors/Dual Capstans

These & other features found exclusively on Tandberg's TCD-330 make it not only the finest cassette deck, but also the cassette deck with performance exceeded only by the best reel-to-reel machines. Three separate heads for no-compromise recording & monitoring. A 3-motor, dual capstan closed loop transport, coupled with complete logic-controlled solenoid operation. Adjustable azimuth & built-in 10kHz tone generator, allowing the user to select the perfect alignment for each cassette, as well as spot dropouts and inferior tape. Equalized peak-reading meters. Automatic take-up of tape loops when cassette is inserted. Servo-controlled high speed winding. Vertical or horizontal operation, plus optional remote control & rack mounting.

Only the TCD-330 has what it takes to deliver cassette performance exceeded only by the finest reel-to-reel machines. Ask your Tandberg dealer for a "Hands-on" demonstration. Write or call us toll-free at 800-431-1506 for his name. Tandberg of America, Inc. Labriola Court Armonk, N.Y. 10504



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able to do so with no more difficulty than they experience in purchasing any other luxury product. The difference in sales of classical records to be derived from such an "advanced" method of marketing as I discussed in the column (that is, selling records at concerts) may not be of interest to those who are preoccupied with the mass market; but to record people it represents the difference between a money-shy, struggling industry and a healthy one.

### **Best Bit**

● As a computer programmer, and hence a stickler for accuracy and consistency, I maintain that the interpretation of binary numbers—contrary to Ralph Hodges' reply to J. Q. Doolan's letter in the December issue—does follow an iron-clad convention regardless of the application. The rightmost bit is always least significant. Technical writings should conform to established mathematical and physical conventions, round way other the not.

RITA HOROWITZ Richmond, Va.

# Dvořák Symphonies

Just a short letter in praise of the article by Irving Kolodin on the symphonies of Dvořák in the November STEREO REVIEW. This kind of comparative discography is educational, particularly for the novice in the world of classical music. I hope that more articles of this type (for instance, on Beethoven or Brahms) are to come. Thank you.

ROBERT M. STUMPF, II Maumee, Ohio

In his survey of Dvořák symphony recordings, Irving Kolodin failed to take into account the prize-winning set by the Czech Philharmonic under Vaclav Neumann's direction. These exceptional performances on the Supraphon label are available complete, boxed (1 10 1621/8), and the last five are also available individually. A free catalog of Supraphon imports will be sent upon request.

OTTO QUITTNER, President Qualiton Records, Ltd. 65-37 Austin Street Rego Park, N.Y. 11374

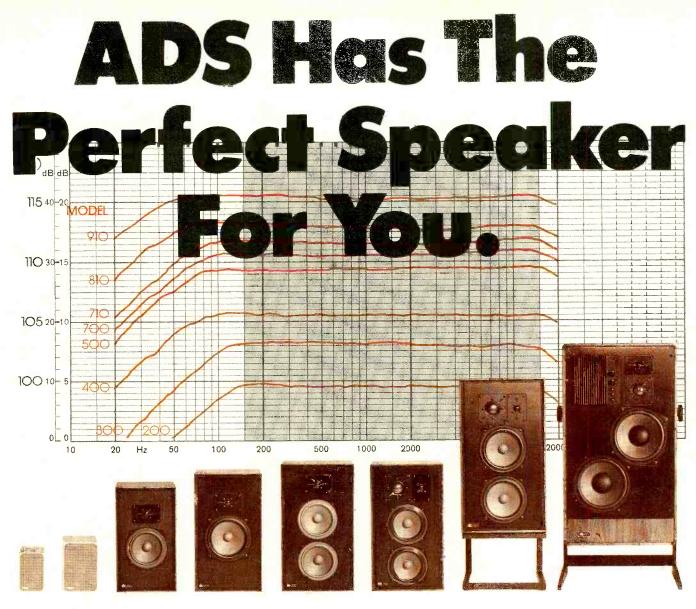
### Critics' Awards

Besides giving awards to musicians and record producers each year, I think you should start giving them to the critics who review their works. I suggest a "Cutesie Critical Commentary" award, to be presented to the person who most consistently manages to boil creative achievements down to a cute, catchy little put-down phrase.

> ELI TOUCHSTONE New Orleans, La.

### Correction

The Vanguard Records volume of Beethoven folk-song settings reviewed on page 84 of January STEREO REVIEW was incorrectly identified as to catalog number and price. It is SRV 356 SD and costs \$3.98.



From the world's first miniature loudspeaker – the remarkable ADS 200 – to the sophisticated bi-amplified studio reference monitor – the model 910 BA – all ADS loudspeakers offer performance to suit the needs and tastes of the most demanding music-lover.

Uncommon qualities are common to all our speakers. They combine the utmost neutrality with accuracy to create a quality best described as "Invisible Sound" – reproduction so transparent and precisely imaged that the speakers seem to disappear.

The shaded area in the above graph indicates the frequency band in which 95% of all musical sounds occur. Throughout this range – between 150 Hz and 15,000 Hz – the response curves of all ADS transducers are practically indistinguishable and as smooth as technically achievable. Naturally, our more expensive speakers will go progressively lower in deep bass and somewhat higher in the uppermost octave. The dynamic range and attainable peak sound pressure level are in direct proportion to your investment. Because you, the listener, will have your own SUBJECTIVE perceptions about your music, we created the best possible sound transducer for you: an OBJECTIVE speaker.

You take pride in being a discerning listener. We take equal pride in the exceptional performance and value of all ADS products.

Shouldn't your next step be to visit one of the select dealers representing ADS? He will competently translate the above graph into sound during a critical A/B comparison in his showroom.

We are confident that ADS has the perfect speaker for you.

| ADC  | For more information on<br>ADS Miniature Speakers ADS Car Systems<br>ADS Speakers for the Home ADS Studio Monitors<br>Send this coupon to<br>ADS, Analog & Digital Systems, Inc.<br>One Progress Way, Wilmington, MA 01887<br>NAME |
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# **New Product/** latest audio equipment and accessories



□ Century FD, Inc. is introducing a new line of cassette tapes giving four choices of recording times: the C-47, C-62, C-92, and C-122. All are ferric-oxide types using the "normal" bias and equalization settings. Maximum output levels at 330 Hz (at 5 per cent distortion) are +9.5 dB for the C-47 and C-62 cassettes, +6.5 dB for the C-92, and +5 dB for the C-122. At 10,000 Hz the maximum output level is +2 dB for all four. Potential signal-to-noise ratios vary from 62 dB for the C-47 and C-62 cassettes to 57.5 dB for the C-122 cassettes. Third-harmonic distortion ratings vary from 0.3 per cent (C-47 and C-62) to 0.9 per cent (C-122). Century recommends that a recording level of +2 dB be used to exploit the rated dynamic-range advantages of the cassettes. Prices for the Century FD cassettes are \$2.76 for the C-47, \$2.96 for the C-62, \$3.48 for the C-92, and \$5.08 for the C-122

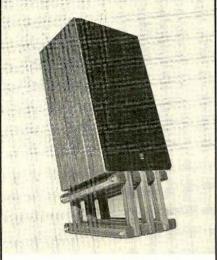
Circle 115 on reader service card



□ The Model 410, BGW's new stereo power amplifier, features fully modular construction (the electronic components for each channel are on single printed-circuit boards which can be "unplugged" for servicing) and has full complementary circuitry. Protection circuits prevent any d.c. voltage from reaching the loudspeakers; the response time of the protective relay is about 20 milliseconds. There is also a thermal-overload circuit. The frontpanel output-power indicators consist of an array of LED's calibrated in watts and decibels (average power). Readout sensitivity is adjustable, with settings of 0, -10, and -20 dB. Separate gain controls are provided for each channel; a speaker-selector switch and power switch round out the control complement. The 410 has a headphone jack for low-impedance dynamic phones and can be switched to drive electrostatic phones directly.

The 410 is rated at 200 watts per channel continuous power into 8 ohms. Frequency response is 20 to 20,000 Hz +0, -0.2 dB (3 to 100,000 Hz +0, -3 dB). Total harmonic distortion is 0.05 per cent or less; intermodulation distortion is 0.01 per cent. An input signal of 2 volts is required for rated power output. Slew rate is 40 volts per microsecond, and rise time is 3 microseconds. The hum and noise level is -110 dB. Dimensions of the unit are 5¼ x 19 x 11¾ inches; a walnut-veneer cabinet is available as an option. Price: \$699.

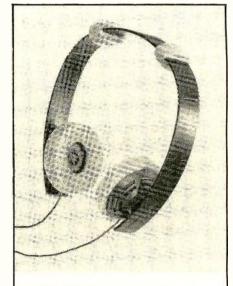
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## Speaker Stands In Kit Form

□ El Manufacturing Company announces its Sound Levels, which are loudspeaker stands, constructed of pine stock, in kit form. The structural members are pre-drilled to be bolted together by the kit builder. All necessary hardware (bolts, washers, and nuts) is provided. When fully assembled, the Sound Levels provide a chair-like support for a bookshelfsize speaker; the "seat" on which the speaker is placed can be set at a tilt of zero, 61/2, or 121/2 degrees from the horizontal. The rear of the speaker is supported by three uprights about 21/2 feet high. The Sound Levels raise the front of the speaker 8 to 10 inches from the floor. The pine structural members are finished with a walnut stain and a sealer. They are sold (in pairs) for about \$40.

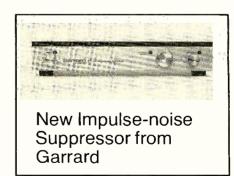
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### AKG's Low-cost, Non-isolating Headphone

□ The K-40 from AKG is an on-the-ear, nonisolating headphone intended to be an economy version of AKG's K-140. It is a dynamic phone which has a one-piece plastic headband with foam pads and ear cushions. The earpieces can pivot about their mounts and can be moved vertically for adjustment. Frequency response is rated at 50 to 13,000 Hz, and the phones have a nominal impedance of 200 ohms. They can be driven to a sound-pressure level of 94 dB with a 0.45-volt input and 112 dB with 3.6 volts. Maximum continuous output is 117 dB (with an input of 6.3 volts). The K-40 headphones weigh 6 ounces and are supplied with a 3-meter (about 10 feet) cable. Price: \$19.50.

Circle 118 on reader service card



□ Garrard has entered into noise reduction with the new MRM 101 Music Recovery Module, an impulse-noise-suppression device. The MRM 101 is actually a phono preamplifier with click- and pop-suppressing circuitry; its outputs are fed to the "auxiliary" inputs of a (Continued on page 16)

# HHB45.

These cassette deck manufacturers use SA as their reference for the High(CrO<sub>2</sub>) bias/EQ setting: AIWA • AKAI • CENTREX • JVC KENWOOD • MERITON • NAKAMICHI OPTONICA • PIONEER • ROYAL SOUND SANSUI • SHARP • TEAC • TOSHIBA UHER • YAMAHA

And are joined by these in recommending SA for use in their decks: BANG & OLUFSEN • DUAL • FISHER HARMAN/KARDON • LAFAYETTE SANKYO • TANDBERG AND MANY OTHERS.



There's been a quiet revolution going on in the cassette world.  $\Box$  Leading makers of quality cassette decks have adopted TDK SA as their reference standard tape for "High" (CrO<sub>2</sub>) bias and equalization settings. Why TDK SA? Because TDK SA's advanced tape formulation and super precision cassette mechanism let them (and you) take full advantage of today's advanced cassette deck technology.  $\Box$  In addition, a growing number of other companies are recommending SA for use with their machines.  $\Box$  So for the ultimate in cassette sound and performance, load your deck with SA and switch to the "High" or "CrO<sub>2</sub>" bias/EQ settings. You'll consistently get less noise, highest saturation and output levels, lowest distortion and the widest dynamic

range to let you get the best performance from any quality machine.  $\Box$  But you needn't believe all this just because we say so. All you have to do is check our references.



TDK Electronics Corp., 755 Eastgate Blvd., Garden City, N.Y. 11530. In Canada: Superior Electronics Industries, Ltd.

# **New Product/** latest audio equipment and accessories

regular preamplifier. It has a moderate-gain preamp that boosts the level of the signals arriving from the cartridge. Following voltage amplification, the signal is split in two; half is passed on to an electronic time-delay circuit, the other half is sent to a detector that senses the presence of a noise impulse.

Detection is based on the rise time, fall time, and duration of this kind of noise. If a click or pop is detected, the output of the MRM 101 is reduced in the time-delayed path to a level 30 dB below the average program level for the duration of the noise signal. During this time interval (amounting to less than 2.7 milliseconds) there is actually a gap in the program. However, the attenuation is *not* sharp but gradual (it takes from  $\frac{1}{2}$  to  $\frac{3}{4}$  millisecond for the level to drop to -30 dB), thus preventing an audible "hole" in the program.

Following the detection circuitry is an output-gain stage that boosts the signal voltage to drive the auxiliary inputs of the system preamp. The degree of suppression can be set for best audible results by the user. A LED on the front panel glows whenever the MRM 101's suppression circuitry acts. There is a switch to defeat the impulse-noise reduction system so that the unit may be used as a phono preamp only. Another LED indicates when the suppression circuitry is in the signal path.

The nominal output of the MRM 101 is 300 millivolts, and rated output (at 1 per cent distortion) is 2.5 volts with the suppression circuits engaged. At typical levels distortion is 0.01 per cent without and 0.1 per cent with the suppression circuitry. Channel balance is better than 2 dB. Signal-to-noise ratios are 100 dB without and 85 dB with the suppression circuitry engaged. Input impedance is 47,000 ohms. The MRM 101 has approximate dimensions of  $2.34 \times 15 \times 12$  inches. Price: about \$200.

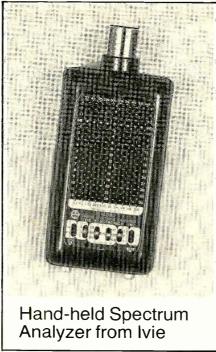
Circle 119 on reader service card



□ CM Laboratories' model 604 Stereo Electronic Crossover is a device used in biamplified stereo systems and commercial sound-reinforcement applications. The 604 provides switchable crossover points, at intervals of 100 Hz, from 100 Hz to 12,700 Hz as well as level controls for the high-frequency and low-frequency outputs. An additional crossover point of 60 Hz is included for use with one or two subwoofers. The low-pass outputs include regular stereo outputs as well as mono outputs with the sum (left plus right) and difference (left minus right) signals of the two stereo channels. This permits the 604 to be used with a single subwoofer and for bridging two power amplifiers.

Frequency response of the 604 is flat within 3 dB from the selected frequency to 100,000 Hz for the high-pass section and from 3 Hz to the selected frequency for the low-pass section. Crossover slopes are all 12 dB per octave. Rated output is 2 volts rms into a highimpedance load (10,000 to 50,000 ohms) and 1 volt into a 600-ohm load. Clipping output is 10 volts (high-impedance load). Both total harmonic and intermodulation distortion are under 0.05 per cent at rated output, and the signal-to-noise ratio is over 90 dB. Dimensions are  $1\frac{34}{2} \times 19 \times 6$  inches; the unit is suitable for rack mounting. Weight is 4 pounds. Price: under \$200.

Circle 120 on reader service card



□ Ivie Electronics' IE-10A Audio Spectrum Analyzer is an extremely compact test instrument that can be used as an octave spectrum analyzer, sound-level meter, and precision preamplifier for microphone inputs. The panel of the IE-10A has a matrix of 160 red LED's that displays the average sound level of each of the ten standard octaves within the audiofrequency range. The result is a graphic display of the amplitude-vs.-frequency characteristic of any sound source picked up by the IE-10A's built-in omnidirectional microphone. The IE-10A can also be switched to operate as a sound-pressure-level meter (using its built-in microphone) with A or C weighting. It is calibrated in both sound-pressure-level (SPL) decibels and dBm. The display has an overall range of 24 to 149 dB SPL in 3-dB steps, with the scale resolution adjustable for 1-, 2-, or 3-dB steps. The IE-10A also accepts external electrical inputs through a phono jack and will display equalization curves when pink-noise test signals are used. The horizontal scale of the display is labeled with the centering frequencies of the ten ANSI-standard octaves covered, which are 32, 63, 125, 250, 500, 1,000, 2,000, 4,000, 8,000, and 16,000 Hz. An output jack is provided for directing the signal being tested to other processing equipment. The IE-10A runs on built-in rechargeable batteries and has a LED that glows when they need charging.

The response of the IE-10A's microphone and preamp is flat within 2 dB from 20 to 20,000 Hz and from 0 to 90 degrees off-axis. The preamp offers up to 80 dB of gain and accepts a wide range of input voltages: the maximum input level is 1,000 volts a.c.  $\pm 1,000$ volts d.c. Total harmonic distortion in the preamp is 0.1 per cent for a 2-volt input. Input impedance is 100,000 ohms, and if used separately the preamp will drive load impedances of 600 ohms or higher. The IE-10A is provided with an a.c. adapter/charger and can operate continuously for about 2 hours between charges; the charging time is about 3 hours. The unit has approximate dimensions of only 6 x 2<sup>3</sup>/<sub>4</sub> x 1<sup>3</sup>/<sub>4</sub> inches, and it comes with a vinyl carrying case and patch cords. Price: \$595. A variety of miniaturized accessories are available, including a pink-noise generator and a distortion analyzer.

Circle 121 on reader service card



□ The Nakamichi 430 Stereo FM tuner is a new addition to that company's line, with a size and style to match the Model 410 preamplifier and the 420 power amplifier. Its low-profile front panel, finished in black, has a lighted dial pointer, a tuning lamp, and a LED for indicating the reception of stereo broadcasts. The tuning lamp lights up when the received signal's strength is enough for 50 dB of quieting. When the dial pointer is at the center of the desired channel, the two green strips on either side of the pointer light simultaneously. The tuner has selectable "normal" (wide) and narrow i.f. bandwidths as well as provision for an optional Dolby decoder (the decoder is available in the form of a plug-in card). There (Continued on page 18)

# Now you can step up to the performance of separates without overstepping your budget.

The performance of separates. That's something most people want but, up until now, couldn't afford. Now you can, with the SU-7100 integrated amp and the ST-7300 tuner.

The SU-7100 is quite a lot of integrated amp, but then we put quite a lot into it. Starting with sophisticated circuitry that's as low on noise as it is on distortion. Like a high-gain Darlington zircuit to maintain low distortion levels. Like 35 watts per channel, minimum RMS into & ohms from 20 Hz to 20 kHz with no more than 0.1% total harmonic distortion. That's the kind of power you need to get the dynamic range you want out of your music.

It may seem complicated, but it sounds beautiful. So do pair-packed dual transistors, especially since they help keep THD down to a mere 0.1% at full-rated power, and 0.03% at half-rated power.

When it comes to your records you want to hear music ... not noise. That's why the SU-7100 has a pre-amp with a two-stage, direct-coupled, low-noise phono equalizer that yields a very impressive and very quiet 78 dB S/N ratio (2.5 mV, IHF A). Or 90 dB S/N (10 mV, IHF A).

The SU-7100 also has low-distortion main tone controls. Two-way tape dubbing. A 41-step master volume control. A or B speaker selection. And more.

That's what you get with the SU-7100 amp. What you get with our ST-7300 tuner is just as impressive. Starting with a test-signal generator for optimum FM recording level settings. And like our expensive tuners, the ST-7300 gives you flat group delay filters for high selectivity and low phase distortion. Phase Locked Loop IC's for low distortion and wide, stable stereo separation. And a zero-center and signal-strength tuning meter.

The SU-7100 and ST-7300. They're your way of turning one modest budget into two separate components.

by Panasonic CIRCLE NO. 69 ON READER SERVICE CARD

Cabinetry is simulated wood.

ech

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# **New Products** latest audio equipment and accessories

is a "hi-blend" switch that reduces channel separation at higher frequencies, thus improving the signal-to-noise ratio on weak stations. The 430 has special multipath output jacks that can be connected to the horizontal and vertical inputs of an oscilloscope to monitor the amount of multipath distortion in the received signal.

The 430 has a usable sensitivity of 1.8 microvolts (µV) in mono, equivalent to 10.5 dBf. The 50-dB quieting sensitivity is 4 µV (17.3 dBf) in mono and 40  $\mu$ V (37.3 dBf) in stereo. The capture ratios are 1.5 and 4 dB in the normal and narrow i.f. modes, respectively. Alternate-channel selectivity is over 60 dB in the normal mode and over 90 dB in the narrow mode. Spurious response, image, and i.f. rejection are all better than 100 dB, and AM suppression is over 60 dB. The output level of the 430 (at 50 per cent modulation) is 0.5 volt; distortion is under 0.06 per cent in mono and 0.09 per cent in stereo in the normal mode, and under 0.2 per cent in mono and 0.4 per cent in stereo in the narrow mode. Stereo separation is over 35 dB (normal) and 30 dB (narrow) at 10,000 Hz, and over 50 dB (normal) and 30 dB (narrow) at 1,000 Hz (referring to 100 per cent modulation of a 65-dBf input). Ultimate signal-to-noise ratios are over 70 dB in mono and 68 dB in stereo.

The 430 has approximate dimensions of  $3\frac{14}{x}$  15<sup>3</sup>/<sub>4</sub> x 8<sup>3</sup>/<sub>4</sub> inches and weighs about 11 pounds. Price: \$400. The model DB-100 plugin Dolby FM adapter is priced at \$40. An optional walnut cabinet is \$30.

Circle 122 on reader service card

and the 3400 is a three-way system employing a 10.7-inch woofer, 3.35-inch mid-range, and 0.75-inch tweeter with crossover points of 700 and 6,000 Hz. The 44F has a 10.7-inch woofer, 3.35-inch mid-range, and 1-inch dome tweeter; crossover points are 700 and 6,000 Hz.

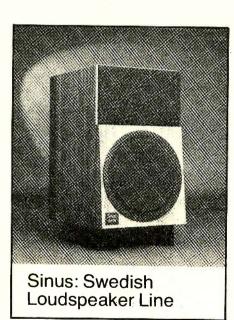
The top-of-the-line speaker is the 55M, which has two 10.7-inch woofers, a 1.8-inch dome mid-range, and two 0.75-inch dome tweeters. The crossover points are 600 and 7.000 Hz, with slopes of 18 dB per octave. The two woofers are mounted in a special cast aluminum "tunnel" and both radiate forward. A polyester filter is placed between them in the duct. The two tweeters and the mid-range all radiate from the front of the enclosure and are mounted in a horizontal line. Level controls are provided for the mid-range and tweeter in the form of a single switch with four settings: normal, 5-dB tweeter boost, 5-dB mid-range boost, and simultaneous 5-dB boost for both. Anechoic frequency response is 30 to 18,000 Hz. Maximum continuousinput power is 90 watts per channel and peak program-power input is 140 watts. Impedance is a nominal 4 ohms. The 55M has approximate dimensions of 241/2 x 13 x 18 inches and weighs 581/2 pounds. It is sold in matching pairs (the left speaker has the mid-range mounted on the left of the baffle). Price: about \$1,300 per pair. Prices of the other speakers in the Sinus line are: about \$160 for the 2300, \$300 for the 3400, and \$450 for the 44F.

Circle 123 on reader service card

an infinite baffle, but it has a tuned port sealed with a removable plug; removal of the plug vents the system and provides a 3 or 4 dB boost in the 30- to 75-Hz region. This feature, referred to as "Vari-Q" by Marantz, is offered on all the systems in the HD line with the exception of the low-end HD-440. The HD-880 has level controls for mid-range, tweeter, and super-tweeter; the drivers are crossed over at 750, 2,300, and 5,000 Hz. The HD-770 has the same driver complement as the 880 but a smaller enclosure; the HD-660 and 550 are without the 1-inch super-tweeter and have 10- and 8-inch woofers, respectively. The HD-440 has an 8-inch woofer and two 31/2-inch cone drivers, one employed for mid frequencies and the other as a tweeter.

Key specifications of the HD-880 include a frequency response of 30 to 22,000 Hz  $\pm$ 3 dB and a power-handling capacity of 150 watts on program material. Impedance is nominally 8 ohms. Response at 45 degrees off-axis is down 4.8 dB at 15,000 Hz and down 2 dB at 5,000 Hz. The HD-880 produces a sound-pressure level of 90 dB with a 1-watt input at 1 meter. The speaker's dimensions are 40<sup>1</sup>/<sub>4</sub> x 16 x 12 inches. Price: about \$320. Other HD speakers range from about \$260 for the HD-770 to about \$90 for the HD-440.

Circle 124 on reader service card



□ Sinus is a Swedish loudspeaker manufacturer now introducing its product line in the United States. The line consists of two acoustic-suspension models, the 2300 and 3400, and two bass-reflex models, the 44F and 55M (shown). The 2300 has a 9-inch woofer and 1inch dome tweeter crossed over at 4,000 Hz,



Marantz's New "High Definition" Speakers

□ The HD line of loudspeaker systems from Marantz features five models: the HD-880, 770, 660, 550, and 440. The top-of-the-line HD-880 (shown) has a 12-inch woofer, 5-inch mid-range, 1½-inch dome tweeter, and 1-inch "super-tweeter." The enclosure is nominally

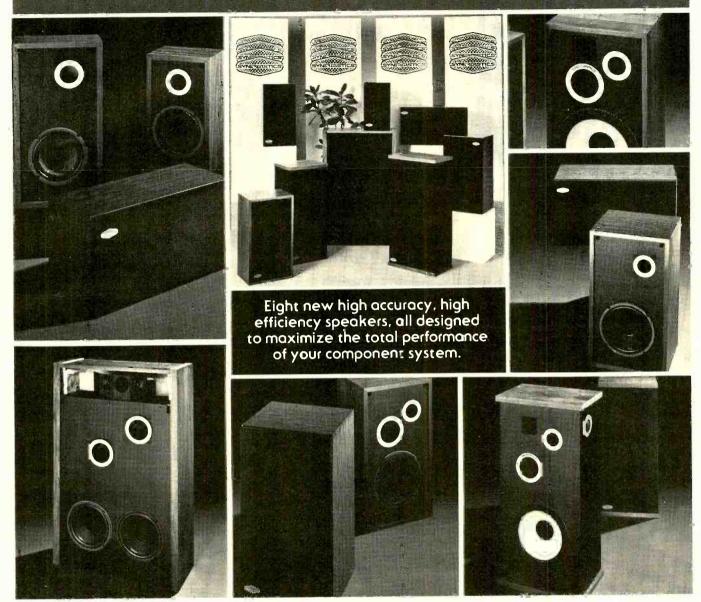
### Audio Interference Pamphlet Covers Problems and Cures

□ Electronic Specialists, Inc. is offering a new pamphlet that describes interference problems common in audio equipment and suggests cures. The pamphlet covers all types of a.c.-line interference, such as that due to lightning and appliances. It also discusses a variety of radio-frequency interference (RFI) problems, such as the pick-up of citizensband and other radio transmissions by the speaker or phono cables in hi-fi systems. The pamphlet, which consists of two double-size pages and includes several practical examples of the phenomena discussed, is available free (include a stamped self-addressed envelope) from Electronic Specialists, Box 122, Natick, Massachusetts 01760. Electronic Specialists manufactures a variety of electronic filter products, a number of which have applications in audio, such as a.c.-line, FM-input, and speaker-line filters.

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 NEW "A" Series From Synergistics!



When you buy a stereo system, choosing the best possible speakers is your most important decision because your speakers largely determine your system's overall sound quality. But how can you be sure which speakers are the best for the system you have in mind? One manufacturer has the answer: Synergistics.

Designed by one of the most respected research teams in the industry, all eight "A Series" Synergistics models offer maximum musical accuracy, without the tonal coloration found in other high efficiency speakers. Our speakers not only excel in their own right, they also dramatically enhance the sound quality of today's amplifiers and receivers.

Match your favorite popularly-priced low or moderately powered receiver to the Synergistics model recommended for it, and your receiver can operate at lower power levels, with more power in reserve to handle sudden musical peaks without distortion. Thanks to Synergistics, you no longer have to spend so much of your total system budget on electronics to get the sound quality you want. Instead, you can invest more on better speakers, where you'll easily hear the improvement in sound.

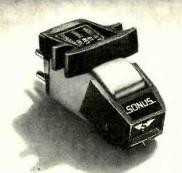
Synergistics has taken the guesswork out of selecting the best speakers for your system, so you'll get the maximum overall sound quality possible within your total system budget.

Synergistics: Cooperative interaction in a system where the total effect is greater than the sum of its parts.



For More Information Write To: Synergistics P.O. Box 1245 Canoga Park, California 91304 CIRCLE NO. 65 ON READER SERVICE CARD

# FOR EVERY SYSTEM WORTH MORE THAN \$500



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We sincerely believe that an investment in a Sonus cartridge will truly surprise you with the way it improves the quality of your record reproduction. The analytical quality of the Sonus brings out the inner voices of complex musical passages clearly and cleanly. Listening fatigue disappears. And a Sonus introduces no extraneous coloration of its own.

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# ludio Q. and A.

By Larry Klein

Little did this clean-shaven, short-haired young hi-fi technician realize that twenty-odd years later he would be Technical Director of Stereo Review



### Weather or Not

**Q.** Am I alone here in the South with the problem of daily changes in humidity and barometric pressure causing my speaker sound to alternate between great and terrible? I suppose an equalizer would help but I have never seen any mention of the effect of air quality on the sound we hear. Could you direct me to an article on the subject?

> ERIC BECKUS St. Petersburg, Fla.

Someone once asked me, "Why do you A. so frequently answer questions with other questions?" I replied, "Why shouldn't 1?" So . . . Mr. Beckus, are you sure it's your system that is being affected, and not your ears? As far as I know, the sound quality of well-made speakers is reasonably immune to the effects of humidity and barometric pressure. I can't see how any of the electronic elements could be temporarily affected either, but I do understand that phono-cartridge stylus suspensions can respond to extremes of temperature by shifting their resonance frequencies. I doubt that that is what you are hearing, though, particularly if the effect is present on FM or tape. Do any readers have additional ideas on the subject?

### "Amateur" Construction

Q. I have recently read a report on tests made by a Japanese magazine on over thirty preamplifiers and power amplifiers. To my surprise. some of the most prestigious U.S.-made equipment produced such comments as "Irrespective of their merits, their workmanship, including features and construction, is extremely amateur-like." I would be interested in your comments.

DAVID FONSECA East Ridge, Tenn.

A. There's a kind of technical snobbery involved here that's worth discussing. Or maybe it's not snobbery, but only a different value system whose parameters haven't been made explicit. About twenty-five years ago I worked for several years for an electronics manufacturer who was producing both radio-TV service instruments and military-

shooting on both types of products and was struck by the contrast between the precisely squared-off cabled wiring, extensive use of terminal boards, and carefully paralleled parts layout in the military equipment and the seemingly random wiring and helter-skelter parts arrangement of standard commercial units (this was long before printed-circuit boards were common). At that time it was standard U.S. wiring practice in all consumer products (TV's, radios, and hi-fi equipment) to wire in the parts by their leads in the shortest, most direct way possible with no consideration for under-chassis aesthetics. True, there were a few premium-price U.S. hi-fi components that used terminal boards and squared-off cabled wiring, but such niceties were mostly found in the Leaks, the Quads, and other expensive British imports. However, it became clear to me fairly quickly during my troubleshooting and repair work on test equipment and audio components that neatness counted for little or nothing in respect to performance. In fact, a good case could be made against cabled wiring in respect to its contribution to excessive circuit capacitance and unwanted couplings. The only things that can be said for the costly military-spec assembly procedures is that the physical arrangement does make it somewhat easier to troubleshoot the equipment if you have the appropriate manual, and the semimodular construction frequently expedites field replacement of entire sections of the circuit without the need to locate the specific part at fault. Then too, of course, such construction does contribute somewhat to ruggedness-an important point for military electronic equipment, most of which must withstand heavy physical and environmental abuse. But home audio equipment is seldom parachuted into Arctic installations or taken into the Georgia swamps for a field exercise.

specification test equipment. I did trouble-

It is my view that a *home* component should be built so as to provide reasonably long life under normal *home* use, be rugged enough in physical design to withstand the rigors of cross-country shipment (from manufacturer to dealer), and work well enough to be audibly indistinguishable from others in its power/distortion/price class. Any audiophile who wishes to pay a premium for special physical (Continued on page 22)

# Not exactly a household word. Yet.

**Ultralinear.** It's got a nice sound to it.

Still not a name on everybody's lips, but we're getting there. Fast.

Against some 200 competitors, Ultralinear now ranks within the Top Twenty! And any loudspeaker line that can grow 83% in twenty-four months, certainly bears checking into.

**Sound out your options.** Pick any Ultralinear system from our broad variety of bookshelf and big-system floor units. And play it against any similar competing speakers – comparably priced **and** more expensive.

We'll trust your own hearing to sort things out. We've found Ultralinear is buyer-preferred: for the superb price/ performance package our "value engineering" delivers. At a more reasonable cost. Our resources are concentrated on sound values the human ear can appreciate — which leaves room for some pretty classy styling in the bargain. Like in the tempting models pictured here:

**Ultralinear 77.** A small but mighty 10" 3-way system. With the resettable circuit breaker we build into every speaker for overload protection.

**Ultralinear 225.** Serious competition to the most ambitious bookshelf units. A stunning listening experience in a 12" 3-way monitor system.

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# **THE CORINTHIAN** COLUMN



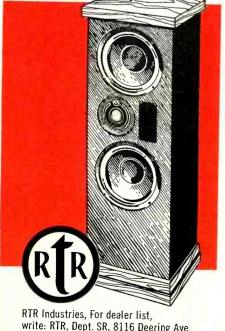
### RTR resolves point-source radiation

Originators of column loudspeakers in the United States, RTR has introduced the most meaningful statement of column design since 1970. The RTR 300D 3-Way Speaker System.

What makes the 300D immediately fresh, almost startling, is its "Resolved Point-Source Radiation Field" which projects a stable image regardless of frequency. Musical instruments are reproduced in a virtually stationary position - just as they were in live performance.

This positive move toward audio reality is the result of significant technological advancements in the design and positioning of each driver within the 3-way system. Primary is the new RTR soft dome midrange system - the first to successfully integrate smooth response and broad dispersion with outstanding dynamic range and transient response. In consort with the two 10" woofers and solid state supertweeter, this milestone midrange reproduces music with the highest degree of audial integrity.

Packaged superbly in an acoustically transparent, Corinthian column and affordably priced. Audition the 300D at your RTR dealer.



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# Audio Q. and A.

appearance, extra-rugged construction techniques, or heavy-duty design is certainly entitled to do so. But he should know that what the extra cost is buying is not necessarily "extra" sound quality. Which brings us back to the "amateur-like" comment. The aesthetics of sound reproduction should not be confused with the aesthetics of underchassis wiring. Things that look better do not necessarily sound better-and vice versa.

# Old Discs, New Cartridge

If I play records that are in poor condi-Q. If I play records that are in poor tridge, tion with a new, expensive cartridge, will they pose any threat to the stylus? I have heard that a bad record can screw up a tip. Is that so?

> **GREGG MASCHMANN** Arnold, Mo.

A worn record will not damage a new A. stylus unless there is abrasive grit in the record grooves. Such dirt can not only cause an increase in noise, but it will act as a sort of grinding compound to cause faster wear on your new stylus than would normally occur. However, even if the older records reduce stylus life by a third (an extreme case), I see no reason not to play them-assuming that they are listenable. Consider the relative costs of replacing the discs vs. that of replacing your stylus.

Some readers have reported (with amazement) that new cartridges have actually cleaned up the sound of their old discs. This happens because a non-conical stylus may ride on a different portion of the record groove walls, and hence play less, or even none, of the damaged groove areas. In addition, the newer cartridges are less likely to have peaks and resonances that will emphasize noise and distortion.

If you have many damaged records, it might be worthwhile for you to check into the kind of electronic noise-reduction devices described in the article "Noise Reducers" in the October 1977 issue of STEREO REVIEW.

# **Best Components?**

I would like to buy an amplifier (or turn-L. table, speakers, etc.) for my stereo system and would like to know which ones you think are the best.

> MANY READERS Everywhere, U.S.A.

Every day we receive eight to ten letters Α like the one above, addressed to Julian Hirsch or to me. Some of the questioners include a list of perhaps fifteen or twenty components available to them in an overseas PX or at their local dealers and ask us to pick the ones that offer the most for the money or make the best matched system.

Our answer to the majority of these inquiries is simply that we are not about to recommend components without having first subjected them to laboratory tests and/or extended use. Neither I, Julian Hirsch, nor any mortal blessed with only ordinary human powers can really judge the fine points of a compo-

22

nent's performance from viewing its front panel or reading the advertising copy provided by the manufacturer. I sympathize with readers who would like to have some clue as to the quality of a component before they invest their cash in it, but I'd rather keep my tentative or half-formed opinions to myself until I'm in a position to back them up with some objective validation-such as is provided in a laboratory test report.

For many of the same reasons, we are not able to provide a ranking of products as "best," "second best," etc. or to design "best," "second best," etc. or to design "matched" systems. We find differences in performance and features among even the finest available components that, in our view, are best evaluated in terms of the individual user's needs and preferences. We point out these distinctions in our equipment reports so that a reader will have enough data with which to reach his own reasoned conclusions. Therefore, the best we can do is to refer readers, when possible, to test reports on specific products.

An index listing all audio equipment tested by STEREO REVIEW since 1965 is available for 25¢ plus a stamped, self-addressed long envelope. Send to: Stereo Review, Dept. TRI, One Park Avenue, New York, N.Y. 10016.

# Two-track Stereo Discs

I understand that in the very early days of stereo, someone was experimenting with an LP record that had right and left channels on two separate bands-one on the inner section of the disc, the other on the outer section. Do you know if the approach ever worked? And did it ever become commercially available?

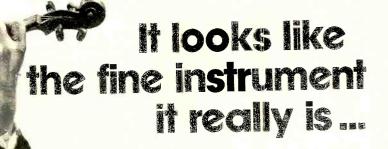
> FRED LOMAX Long Beach, Calif.

A. Not only did it work, but the Emory Cook records you are referring to were sold in hi-fi stores, as were the special tone arms needed to play them. The photo below shows a Cook double-band disc and a doublehead tone arm designed by the Livingston



Company, a hi-fi manufacturer of the day. The two heads of the tone arm were only loosely coupled to each other and had to be synchronized in the appropriate grooves by hand. Once synchronized, the two mono cartridges would then each deliver their respective channels without further attention.

Ultimately, a Cook "binaural" adapter designed to clip onto normal mono tone arms also became available (for \$5.95). Cook and Livingston together eventually released about a dozen stereo discs (at \$4.98 each). Considering that they first appeared in 1952, a time when mono hi-fi was barely available, Mr. Cook's efforts might seem to have been somewhat premature. Incidentally, a telephone call to Cook Laboratories confirmed that Mr. Cook is still alive and well and duplicating tapes in Stamford, Connecticut.





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There are numerous reasons you should buy the all-new Realistic "78." Because it not only looks fine, it is a fine receiver with professional touches not expected for the money.

Phase locked loop FM multiplex. For very wide stereo separation and distortion that's inaudible. Operational amplifier ICs. Newly developed OP-AMP integrated circuits in

the phono and tone control preamps assure clean sounding music with wide dynamic range. Switchable 25/75 microsecond de-emphasis. The only way to get correct equalization (and sound) from all FM broadcasts, Dolby\* or standard. **Ample power**. A true complementary OCL (Output Capacitor-Less) amplifier delivers 22 watts per channel, minimum RMS at 8



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ohms from 20-20,000 Hz, with no more than 0.5% total harmonic distortion. And that's a conservative rating! **Stereo reverse switch**. For interesting effects from some sound sources. **Style**. Black panel, distinct

lettering and backlighting for easy viewing. Made in Radio Shack's own factory. For precise quality control at a low price. Just 269.95 – even less if you buy the STA-78 in a system.



These two credit cards honored at most Radio Shacks. Price may vary at individual stores and dealers.





# Digital

• The 58th Convention of the Audio Engineering Society took place in New York November 4 through 7, giving members a chance to look over product displays and listen to some of the seventy-six technical papers presented. The key word at the event was "digital." Several manufacturers showed digital recording/reproduction devices, and many staged impressive demonstrations of the technical superiority of digital over conventional analog recording techniques.

Minnesota Mining and Manufacturing (better known as 3M) introduced a fully equipped thirty-two-channel digital studio recorder with impressive specifications—and a suitably large price tag of \$150,000 (a four-channel mixdown deck is included in the bargain). By its nature, this machine has *no* (!) wow and flutter or print-through problems, and vanishingly small distortion. The signal-to-noise ratio is greater than 90 dB *without* any ancillary noise-reduction equipment.

Soundstream, Inc., of Salt Lake City has been developing various digital signal-processing devices for some years. At the convention they displayed a digital studio tape recorder and presented a paper detailing a strategy for digital editing of master tapes. Digital editing procedures have the potential to greatly simplify master-tape editing and reduce error in the process. For example, the tape splicing customary with analog recordings, involving physical cutting and patching, is no longer necessary. Several "takes" of a recorded passage can all be stored on one tape (or magnetic disc), and the final take can simply be inserted into the master by copying from one machine to the other. With digital master tapes, practically unlimited numbers of copies (and copies of copies) can be made with no deterioration in signal quality (in particular, the noise level remains unchanged even after many generations).

Some of the digital recorders seen at the show have been around for a while even in consumer versions. Videotape technology is well suited to digital applications, and some manufacturers (such as Sony and Mitsubishi) have adapted their video machines to audio recording. Sony has a consumer digital encoder/decoder that can be used with its Betamax videotape unit, and Mitsubishi was showing three pulse-code modulation (PCM) devices: an open-reel deck, a cassette deck (using the U-matic video-cassette format), and a new *disc* system developed in cooperation with Teac and Tokyo Denka. Although they staged a startling demonstration of the cassette recorder (a recording of a jet plane taking off, made without compression or peaklimiting, showed the system's vast dynamic range), the real star of the exhibit was the disc recording and playback system.

The PCM disc-recording system uses a metal-plated transparent disc which stores a record of a PCM signal in the form of a series of "pits" on the disc surface. In the process of making a recording, the audio signal is pulsecode modulated and then impressed upon the disc by effectively "burning in" the pits with a laser beam. Playback is accomplished optically by "reading" the pits with another (lower-intensity) laser beam. The master disc is used to make polyvinyl-chloride copies in a process similar to that of standard record pressing. The disc, which measures about 12 inches in diameter, rotates at 1,800 rpm (you thought 78 rpm was fast?). For now, recordings are made on one side of the disc only; playing time is about thirty minutes per side.



Practically all the digital devices shown or described in papers at the show were professional units for recording studios. The cassette and disc, however, are intended for the consumer market. The disc player is projected to cost about \$600 to \$700 (perhaps less later) and individual discs might ultimately cost no more than ordinary LP's. Mitsubishi has a number of other ideas for the disc system, among them jukebox applications. They envision putting on one disc a large number of three-minute singles, which will be appropriately "addressed" (in other words, the positions of individual selections on the disc will be numerically encoded) so they can be located by computer circuits when the customer plunks his change into the machine and keys in his choice.

It is clear, from the audiophile's point of view, that a big limitation on these new systems right now is the lack of software; there are no prerecorded programs as yet. Nonetheless, one thing is certain: audio *is* going digital, and it's only a matter of time before a digital hi-fi system finds its way into American homes.

### Acoustic Profile

As many audiophiles realize, the last (and often most frustrating) problem they encounter in getting their hi-fi systems to sound "right" is that of determining and correcting the acoustic quirks of their listening rooms. But help is on the way. If you just happen to find yourself at one of Acoustic Research's show exhibits, you may get to see an approximate frequency-response graph of your listening room or a plot showing where standing waves are likely to form. AR has transferred from their large research computer to a portable minicomputer scaled-down versions of some of the acoustics programs they have been producing. They are taking these "on the road" to various hi-fi shows and AR dealers who offer consumer seminars. The standing-wave program requires only the room dimensions as input data; the computer displays the predicted standing-wave pattern on a television-like CRT screen. The "Mini" is also programmed to display approximate polarresponse graphs for high-frequency drivers. and it needs only the driver's diameter to do this.

### **Cheaper Power?**

• There may be a change coming in the economics of higher-power-amplifier manufacturing. National Semiconductor, one of the largest manufacturers and suppliers of integrated circuits (IC's) in the United States, has announced a new audio power-driver IC, the LM391, said to be suitable for application in audio power amplifiers. According to National, the chip can be incorporated into designs to drive external power transistors to an output of up to 140 watts when two of them are bridged. It is now being promoted for designs ranging from about 40 to 75 watts output.

The most interesting aspect of the LM391 chip is that it can replace as much as \$15 worth of discrete-component circuitry at a cost of about \$1. Among other design features, the chip has protective circuits built into it, and this can also represent a saving in external circuit components (many manufacturers arrive at their retail price by multiplying their parts cost by a factor of five).

For now, however, it appears that poweramplifier designers are not particularly concerned with the least expensive way of doing anything. The search is on for proprietary circuits whose real—or imagined—advantages will permit each manufacturer to claim performance superior to that of his competitors. A "standard" driver stage would for that reason be anathema to designers looking for esoteric solutions to old problems or inventing new problems that demand novel and expensive solutions.

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K-ngs, 17 mg, "tar"; 1.3 mg, nicot ne; Longs, 18 mg, "tar"; 1.3 mg, nicotine; av per cigarette, FTC Report Aug, '77

| Allison dealers are now demonstrating the ALUSON: FOUR, the first "bookshelf" loudspeaker system with Stabilized Rediation Loading*. This unique design minimizes the large variations in middle-bass power output produced in conventional systems by reflected impedance from room placement withou boundaries. In uniformity of bass power delivered to a real listening room, the new model FOUR's only peers are the large rand more expensive Allison three-way systems. The FOUR is a two-way system with a crossover frequency are 2,000 Hz. But its extreme low-frequency response is the same as that of the ALLISON. Two, and it is "Platents pending". "Higher in the South and West because of freight cost. | THE<br>THE Compact Cass<br>1964 when STERE<br>cious six-year-old. Pr<br>prognosticators even<br>future for the (then) of<br>they made so bold as<br>licly. This was very c<br>ecy, for of all the<br>available at the time,<br>the <i>least</i> promising. V<br>narrow tape tracks an<br>sette had no high-1<br>speak of, no speed<br>tape noise. Many mis<br>convenient speech-d<br>amusing ambitions. Be<br>tors of the cassette k<br>has proved them right<br>Credit for devising<br>place goes to Philips<br>Staar of Belgium. Wi<br>decks first began to<br>was a brief flurry of<br>System," a transport<br>cassette was inserted<br>slot—as opposed to<br>cassette "well," whi<br>insertion of the casset<br>receptacle. Otherwise<br>cal controversy worth<br>years of the cassette's<br>Under the Norelco |
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tions, a statement of Full Warranty,

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ALLISON: FOUR great flexibility in

shelf, or hung on a wall using the

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Allison systems in high-frequency

Outcle Natick Massachusetts 01200 By Rolph Hockges

# THE CASSETTE: A SHORT HISTORY

tte was introduced in REVIEW was a precosciently enough, a few hen foresaw a brilliant urious little format and o predict as much pubose to a reckless prophecord/playback media the cassette was surely ith its unprecedentedly 17%-ips speed, the casequency response to tability, and plenty of ook it for a clever and ctation medium with it even then the invennew better, and history

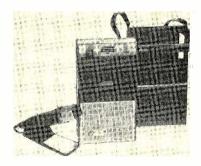
Credit for devising the cassette in the first place goes to Philips of the Netherlands and Staar of Belgium. When component cassette decks first began to reach the market there was a brief flurry of debate over the "Staar System," a transport mechanism in which the cassette was inserted edgewise into a loading slot—as opposed to today's more familiar cassette "well," which provides for angled insertion of the cassette into a suitably shaped receptacle. Otherwise, there was little technical controversy worth mentioning in the early years of the cassette's existence.

name Philips exported a s to the U.S. market, for lack of general apthough from all reports ell). A previously unany called TDK began ape formulation that give a somewhat more ded high-frequency reg freedom from "droperfections in the oxide was meanwhile gaining s as a music medium for e eight-track cartridge And as for prerecorded sound quality was vign coast to coast in this

The times demanded change, and the change came very quickly. Some years previously, Henry Kloss (the "K" in KLH) had prevailed upon Dolby Laboratories to create a

"compander" noise-reduction system that would suit the requirements of home recordists in the elimination of tape noise. The resulting Dolby B-type noise-reduction processor found its way into a KLH open-reel machine that, when everything was going right, could genuinely challenge the performance of much more elaborate tape recorders operating at higher tape speeds. The KLH deck foundered commercially, but when Kloss founded his own company, Advent, the Dolby-B processor was still on his mind, and he felt that the cassette format was where it would find its happiest application. The Advent 200 deck that resulted from this conviction brought the cassette into the realm of high fidelity. With a frequency response approaching 14,000 Hz (as opposed to the 9,000 or 10,000 Hz that was the usual figure at the time) and an effective signal-to-noise ratio ex-

scaled-down (from their professional system)



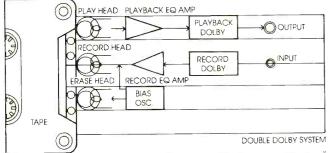
The original Norelco Carry-Corder

ceeding 50 dB, the Model 200 could deal competently with any off-the-air taping chore and do justice to many LP discs as well.

Meantime, a fight for dominance was shaping up between the cassette and the eighttrack cartridge. The cassette had smaller size, familiar (more open-reel-like, that is) handling characteristics, a rudimentary if problematic editing capability, a slight edge in the in-home market, and the Dolby system. The eighttrack cartridge had a higher tape speed, a wider track, a considerable lead in the automotive market, and easy four-channel sound capabil-(Continued on page 28)



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



### Three-Head Design with Double Dolby.\*

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

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

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

But as good as all this sounds, wait until you hear the price. Because at \$375.00,\*\* no other comparably priced cassette deck can match

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BIAS ADJ

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Variable Bias Adjust

compensates for tape

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> The Ditton 33 by Celestion A sealed-enclosure three-way system employing a 10-inch high-compliance woofer, a 5-inch transmission-line-loaded mid-range and a 1-inch pressure-dome tweeter for smooth, wide dispersion. Overall frequency response is 25 to 28,000 Hz. Available in walnut or teak finish. 14"w × 10½"d × 24"h, \$239.50 each.

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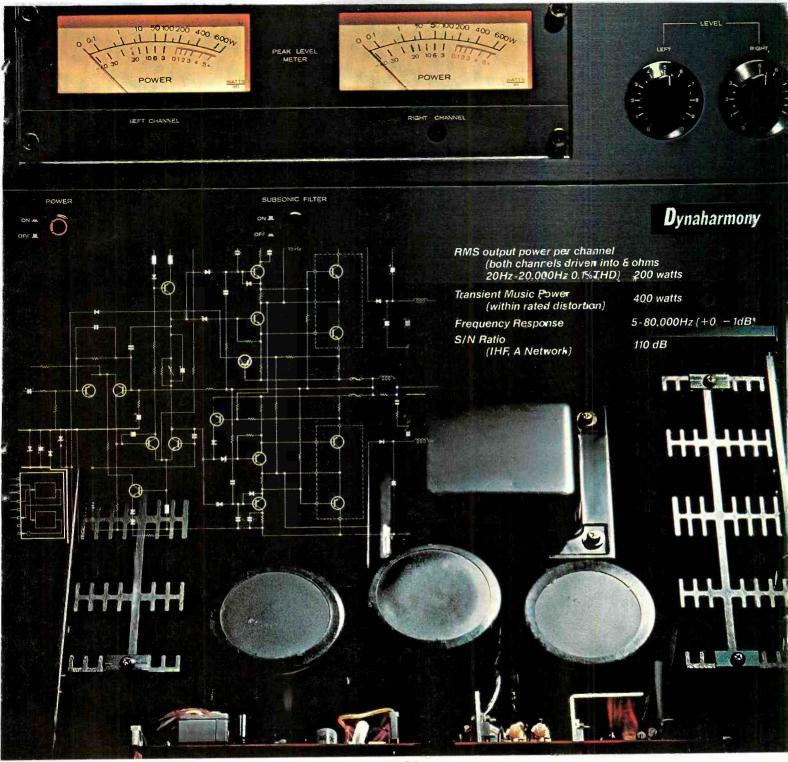
# Audio Basics . . .

ity. The originators of the cassette concept (most notably Philips) held back from adopting a special standard for quadraphonic sound. In retrospect it appears they may have been wise, but the eight-track format embraced four-channel sound immediately, and this made a definite difference in the cartridge's appeal in automotive and other lowto medium-fi applications.

The battle for technical supremacy was decided through eight-track's failure to innovate. Eight-track cartridge decks incorporating the Dolby system were very few. Furthermore, DuPont had come up with a metallic oxide-chromium dioxide (CrO2)-that had a capability for slow-speed, high-frequency recording vastly superior to anything then available. Advent championed this new tape formulation, and in a joint effort with Dolby Labs and DuPont managed to establish a new equalization standard for  $CrO_2$  that raised the high-frequency and signal-to-noise performance of the cassette far above anything eight-track could approach in its standard form. The CrO, tape required a higher bias signal than conventional cassettes, and a different equalization characteristic as well.

At just about this time, as it became plain that the cassette, despite Philips' conservative approach, was becoming an "anything goes" format, a number of its fans began to visualize the ultimate cassette deck. It would have three heads instead of two in order to permit off-the-tape monitoring and to facilitate correct design of each head for its particular function. The critical playback head would of course have to be positioned opposite the cassette's built-in pressure pad, thus ensuring good tape-to-head contact. The record head would therefore be deprived of a pressure pad, but an adequate substitute should be possible in the form of a dual-capstan drive that would create a certain amount of tension in the tape as it passed over the heads, literally pulling the tape into close contact with the record-head gap. I recall a certain amount of ungracious snickering when these ideas were first proposed, but it was to be only a matter of months before a machine embodying them was standing before us, first titled the Concord-Nakam Model Z and then the Nakamichi Model 1000.

SINCE that glorious introduction, three-head cassette decks have become almost commonplace. Hitachi soon devised a head configuration in which the record and playback heads nestled snugly in one head housing so that their various gaps could share a cassette's pressure pad. The impact of this innovation was primarily economic, in that it made the three-head configuration affordable if not truly inexpensive. Now we face the prospect of new tapes, such as 3M's "Metafine," that promise to extend the cassette's high-frequency response out to virtual infinity and render its present overload problems a dim and distant memory. As a product that has far exceeded its inventors' most optimistic expectations, there has perhaps been nothing like the cassette since Thomas Edison's little tin-foil "dictation" recorder. Ouite possibly, there will never be anything like either of them again. But let's not close the patent office just yet anyway. 



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We have filled the rack with our choice of outstanding Sansui components. And there's still plenty of room for your records. Listen to them on the Sansui SR-838 Quartz-Servo direct-drive turntable, about the most elegant and stable precision turntable in the world. Even when set on

top of so much power, the SR-838 will perform free from all noise and feedback.

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To match these outstanding components, Sansui offers you the AU-717 amplifier with the widest frequency response (from main-in) of any available DC integrated amplifier at any price. With astonishingly low distortion and noise, and wide overall frequency response, the signal is an ultra-faithful replica of the original. The AU-717 delivers the brilliance and all the nuance that makes music so important in your life.

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20dB input level attenuators on the 4 main inputs. Reverb is included, as well as circuits for 4-channel, equalization and noise reduction. Record the sounds you create on up to 3 tape decks.

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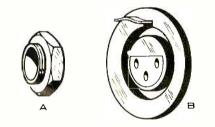
### Impedance Transformers

O. I want to buy a good pair of microphones for my open-reel recorder, but I'm told I will need to put out an additional \$20 each for "impedance transformers." Why?

PAUL D. WATSON Tarleton, Texas

A. Microphone impedance transformers (also sometimes called "cable transformers") are a usually necessary "interface" that adapts the output characteristics of high-quality microphones to the input characteristics of many consumer tape machines.

Most top-quality microphones are designed to be "low-impedance" (250 ohms or less) and are intended for use with "balanced" cables—that is, cables with two inner conductors plus an outer braided shield. Most taperecorder microphone jacks, on the other hand provide a "high-impedance" (2,000 to 50,000 ohms) input (A) and are "unbalanced," which means that the plug at the end of the cable has two conductors or contact points, as on a standard or miniature phone plug.



Many microphones are designed for highimpedance unbalanced operation, and these can be plugged into consumer recorders directly. But they are undesirable for serious live recording for two reasons: first, highimpedance cables must be kept quite short (about 12 to 15 feet at most) or they will roll off the high-frequency response; second, unbalanced, high-impedance lines are susceptible to hum and noise pickup.

Low-impedance balanced lines solve both the high-end rolloff and the hum pickup problems and permit cable runs of hundreds of feet. (With the cable-length restriction on high-impedance mikes, your recorder would probably be close enough to the mikes physically that its motor noise might be picked up.) Professional recorders (and mixing consoles) are designed to use "low-Z, balanced" microphones directly, and they usually have threepin "Cannon-type" connectors (B). (They also cost enough more to cover their built-in \$20 microphone transformers!)

When connecting the transformers for use with home recorders, be sure to put them at the *far* end of the cable and near the recorder, *not* at the microphone end of the mike cables. That way, only a very short length of singleconductor shielded cable (from transformer output to recording input) will be required.

### **Relapping Heads**

Q. The heads on my reel-to-reel deck show definite signs of wear. I've heard that professionals "relap" worn heads instead of just replacing them. Is there any way this can be done for the tape heads in home recorders? MAXWELL CARTER Decatur, Ga.

A. Yes, there is, and since a new set of heads may well cost over \$100—plus the labor of having a technician install them relapping may be worth considering.

When tape heads wear, two things happen simultaneously. First, ridges appear on the face of the head at the edges of the tape path where it cuts into the head. Second, the point of contact between the tape and the head becomes flattened. Both will cause loss of the proper tape-to-head contact (which shows up audibly as erratic high-frequency performance), and the ridges can actually do permanent damage to the edge of a tape that is slightly wider than normal or is skewing. Relapping (or repolishing) the head eliminates the wear groove on the head face and restores it to a close approximation of the original rounded contour at the point of contact. There are professionals who relap heads for recording studios, but their services may be hard to come by (as well as prohibitively expensive) for the home recordist. But if the wear groove on the head has gotten sufficiently deep for you to catch your fingernail on, either replacement or relapping is called for.

Nortronics has recently begun marketing the QM-707 Handylap kit, which contains everything you need to do a first-class job on about a half-dozen heads. (They also make available refills of the extraordinarily precise lapping films necessary, so you could make a small business of head lapping for friends if you want to.) Frankly, while in the past I had imposed on a couple of skilled lapidary friends who had given a new lease on life to several tape heads that were otherwise headed for the wastebasket, I was initially very skeptical about my own ability—and that of readers who have never done this sort of thing before—to attain the necessary precision. Using the kit and following the directions in the extremely clear instruction booklet, however, I've become a believer: it *can* be done.

Not every tape head, of course, can successfully be restored to "like-new" performance by relapping. The average gap thickness in a tape head is between 16 and 22 mils (thousandths of an inch). If normal wear or the additional abrasion of the repolishing process brings you ultimately to the bottom of the gap, where it begins to widen excessively, there is no alternative to complete replacement. However, a professional is likely to be able to relap a head, at a guess, twice during its useful life, and a home recordist, who might wait a bit longer initially, may be able to relap only once. Even at that, however, he will be doubling the life of a head he would otherwise have discarded.

I don't mean to make this sound overly easy; unless you have the necessary test tapes and other equipment, you will still have to get a service technician to install the relapped heads just as if he were putting in new ones. And the Handylap kit isn't free, either: it carries a \$65 suggested list price, though that may be discounted somewhat by a local dealer. Nortronics will send you a list of dealers from whom the QM-707 is available if you write them at 8105 Tenth Avenue North, Minneapolis, Minn. 55427, attention of Mr. J. B. Strand. In any case, compare costs carefully before investing.

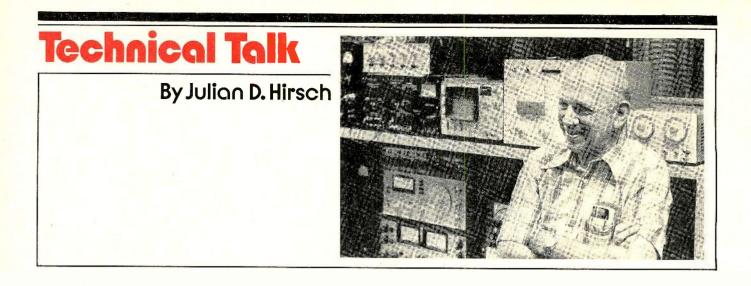
### Antique Restoration

O. I've been a great open-reel tape enthusiast for nearly thirty years. Now I'm finding that an occasional older tape develops a squeal and sort of chatters as it passes over the heads of my deck. I suspect that some of these older tapes weren't of the best quality, and probably the lubricant is drying out. But since some of my favorite music is on them, is there anything I can do to make them playable again?

FRANCIS J. FOSBURY Coral Springs, Fla.

A. Not only the lubricant (if any), but the plasticizer used in these old tapes has dried out, and what you really need is one final squeal-free pass—so that you can dub the material onto a more modern tape and discard the originals.

There are commercial "head lubricants" you can get in audio shops (they usually have a silicon base), but they probably won't help much. While I offer no guarantees, you might try taking one of these old reels and putting it into a metal film can together with a piece of moist blotting paper. Seal it up with tape to keep it airtight, and give it a day or so to let some of the moisture in the blotting paper penetrate into the older tape. Upon removal, you might be able to dub that treasured "oldie" before it has a chance to dry out again.



• TESTING PHONO CARTRIDGES: A test of a phono cartridge can be undertaken with any of several ends in mind. Ultimately, however, what we really want to learn is how it sounds, or, more accurately, how records sound when played by that particular cartridge. An obvious impediment to this aim, aside from differences in individual taste, is the large number of possible "test" records one might choose. It seems likely that somewhere there exists a record to complement the characteristics of each particular cartridge and make it sound or measure "better" than any other. Unless one is prepared to restrict his listening considerably, or else match each record with its optimum cartridge (which some people very nearly do), this type of evaluation leaves much to be desired. What is the alternative?

Let us start with the assumption that a phono cartridge should translate the modulation of a record groove into an exactly analogous electrical voltage. We would really like its electrical output to duplicate the waveform of the signal that drove the cutter head that made the master disc. Unfortunately, fundamental problems limit any cartridge's ability to achieve that goal.

Two distinctly different aspects of a cartridge's operation combine to create its total performance. First, the stylus must precisely follow (trace) the groove, which was cut with a specially shaped, thin-edge stylus capable of inscribing the very rapid undulations in the groove wall associated with high frequencies. The playback stylus has a somewhat different shape, and is therefore theoretically unable to trace the path of the cutting stylus accurately. The inevitable geometric differences between the cutter and the player appear in the cartridge's output signal as distortion. Special stylus shapes have been devised that more closely resemble that of the cutting stylus. Although they usually give better high-frequency performance than a simple conical stylus tip, they only approximate the correct shape.

These considerations, plus others, may complicate the life of the record listener, but they need not interfere with the cartridgemeasurement process. Keep in mind, though, that test records and normal music records are not the same, so the conclusions a tester might reach about a cartridge's performance with test discs might be quite different from your own impressions of the same cartridge playing "real" records.

After the stylus has traced its path, albeit with distorting deviations, its motion must be converted into an electrical voltage. Just *how* this is done is not really germane to the tester's work (nor should it be to the consumer's purposes), except insofar as the cartridge loading requirements and output voltage affect the interface with the preamplifier or the test instruments. Most cartridge manufacturers specify optimum resistive and capacitive loads for their products, which (in theory, at least) should allow a test laboratory to duplicate the manufacturer's data.

The cartridge designer has to deal separately with the mechanical and electrical aspects of his product's performance, since in magnetic cartridges (other than the moving-coil type) the electrical circuit is manipulated to compensate for response deficiencies in the mechanical circuit. The tester has no need to make this conceptual distinction; he need only follow the manufacturer's recommendations. And so we come down to the actual measurement process, which is largely a matter of playing records and measuring or otherwise analyzing the cartridge's output voltage. Some engineers have used small mechanical vibrators to excite the stylus, thus freeing themselves from the problem of tracing a groove whose shape is incompatible with the stylus shape. Unfortunately, they also free themselves in the process from any relationship with the real world.

The first rule of cartridge testing should be to remember (and to recite to oneself before

# Tested This Month

Marantz 2500 AM/FM Receiver Sanyo RD5300 Cassette Deck Sansui AU-717 Amplifier Audio Technica AT-605 Audio-insulator Set Infinity Qa Speaker System every test) that the data obtained describe only what that cartridge did when it played that record under those load and operating conditions. The data can not be extrapolated to show what might happen with different loadings, different tracking forces, or different arms. And the measurements most definitely cannot be taken as any indication of what the same cartridge, under the same conditions, would do when playing a different test record. By "different" I refer primarily to a product of another manufacturer, but it is also true that no two pressings of the "same" model record will give exactly the same results, and after a number of playings any one pressing will show changes, particularly at the highest frequencies. In any case, if a cartridge specification of frequency response or crosstalk does not state which test record was used, it is worthless for purposes of comparison with any other cartridge.

OR our frequency-response and crosstalk measurements, we use the venerable CBS STR 100 record, which has recently been remastered. Its sweep from 40 to 20,000 Hz is synchronized with the chart drive of our General Radio 1521A graphic-level recorder, and the amplified but unequalized cartridge output is connected to the drive circuits of the recorder pen. The cartridge is loaded as recommended by the manufacturer, and the leftchannel output is plotted first, giving a frequency-response curve. The chart is then turned back to its beginning and the same process is repeated with the right-channel modulation. This gives a crosstalk plot for the left channel of the cartridge on the same chart. The output of the right channel is then measured in the same manner.

There are inherent differences between the two channels of the STR 100 record, especially in their crosstalk characteristics. When referring to the crosstalk at a specific frequency, we usually average the two readings. A CD-4 cartridge is measured in a similar manner, using JVC test records that sweep from 1,000 to 50,000 Hz.

A number of records could be used to measure cartridge distortion, and we have used most of them at one time or another. None has been really satisfactory, for a variety of reasons. Perhaps the most serious prob-(Continued on page 38)



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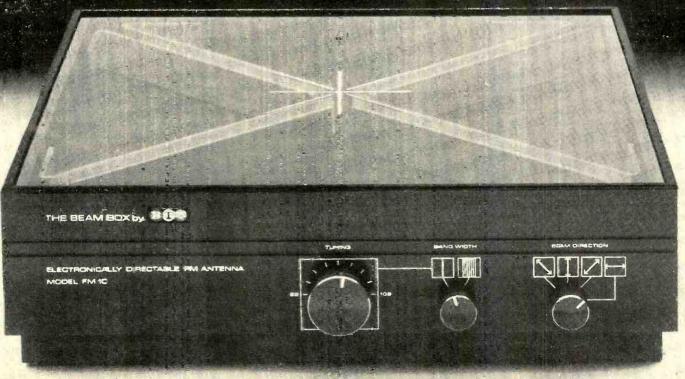
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PLEASE SAY "BEE-EYE-CEE" ©1977 BRITISH INCUSTRIES CO. (TEL 516-334.7450). WESTBURY, LI., NY, 11590. A DIVISION OF AVNET INC CIRCLE NO. 13 ON READER SERVICE CARD lem is the difficulty of correlating *any* measured distortion with anything one might hear when playing a music record. Unlike most electronic components (but like loudspeakers), phono cartridges distort very differently at different frequencies. This makes it relatively easy to find some test record that will favor a particular cartridge to the detriment of its competitors. No cartridge we have ever tested is "best" on every test record.

For years, we used an intermodulation-distortion (IM) record made by RCA (the Model 12-5-39). It had 400- and 4,000-Hz tones recorded in a 4:1 amplitude ratio at peak velocities from about 7 to 27 centimeters per second (cm/sec). A standard IM analyzer could be used to display the percentage of intermodulation distortion of a cartridge output as it played this record. Disregarding the actual numbers one obtained from such a test, it did show how well a cartridge could cope with extremely high mid-range velocities as a function of tracking force. The RCA record was a 78-rpm disc, but we now use the Shure TTR102, which is a 33½-rpm equivalent.

Shure also makes a test record, the TTR103, that contains several different types of test signal. We use it only for a check on high-frequency tracking. Shaped tone bursts of 10.8 kHz at a 270-Hz repetition rate are recorded at four velocity levels from 15 to 30 cm/sec. Using filters to separate the two frequencies, the amplitude of the 270-Hz component in the cartridge output can be expressed as a percentage of the 10.8-kHz amplitude. A cartridge with linear response at 10.8 kHz will not have any significant amount of the repetition-rate frequency in its output. The measurement results appear in graphic form in each cartridge test report.

SQUARE waves would seem to be useful for testing cartridges. A 1,000-Hz square wave should test the flatness of frequency response from below 100 Hz to above 10,000 Hz, as well as the phase shift of the cartridge over the full audio range. Any resonances show up as "ringing" on the wave form, and the amplitude and duration of the ringing are indicators of the effectiveness of any damping in the cartridge. But there is a problem in that it is extremely difficult to cut a true square wave on a record. The actual shape in the groove is a triangle, with very sharp "points" that require the cutting stylus (as well as the playback stylus) to change direction in literally no time at all. Obviously, real styli cannot do that. Also, the internal resonances in the cutter system can superimpose themselves on the square wave. The CBS STR 112 record, which we use, has a very detectable 40,000-Hz ringing on its 1,000-Hz square wave. Most quality cartridges whose coil inductance rolls off their response above the audio range yield a very nice-looking square wave from this record, but some moving-coil types and electret cartridges reveal the ringing quite clearly. When we first began to use this record, we incorrectly identified the ringing as arising in (and being a problem of) the cartridges, but we were informed by the various cartridge manufacturers of the true culprit.

The output voltage of a phono cartridge is one of the few specifications that are reasonably standardized. It is measured at a velocity of 3.54 cm/sec per channel at 1,000 Hz (equivalent to a 5-cm/sec lateral velocity). The CBS STR 100 record has these levels recorded separately for each channel. "No cartridge we have ever tested is 'best' on every test record."

At one time, the vertical-tracking angle of the stylus system in phono cartridges was completely nonstandardized. Some years ago, it was found that the most widely used cutting heads made records that were best played back with cartridges having a 15-degree vertical stylus angle. Gradually, that became an industry standard. More recently, it appeared that a slightly larger angle was more compatible with newer cutting systems, and currently 20 degrees is the accepted standard. We measure this with the aid of a record issued by CBS some years ago, the STR 160. It contains fifteen bands of 400-Hz tones recorded at different vertical angles from -6 to +43 degrees. The effect of a vertical-tracking discrepancy (error) between the cutting and playback styli is to increase the second-harmonic distortion in the vertical output of a cartridge. This is tested by connecting the channels in parallel and out of phase to cancel the lateral output. We simplify the process by connecting one channel of the cartridge output to our spectrum analyzer and observing the secondharmonic level. A definite minimum will be found when playing the band whose angle most nearly corresponds to that of the playback stylus.

Some of our test records are used purely for listening tests. This is the most convenient way to judge tracking ability. In the midrange, we use a record with 1,000-Hz tones at a 30-cm/sec velocity. The cartridge waveform, if it is displayed on an oscilloscope, reveals peak clipping or other distortions and allows one to determine whether the situation can be improved by increasing the tracking force. For very low frequencies we use a record containing a 32-Hz tone recorded with such a large amplitude that the groove shape can be seen from a distance of several feet. The mere ability of a cartridge to stay in this groove is prima-facie evidence of excellent 'static'' compliance. Neither of these very useful records, incidentally, is currently "in print."

A very useful "listening" test record is one issued by the German Hi Fi Institute. One of its bands contains a 300-Hz tone recorded with increasing levels, expressed in terms of their amplitude, from 20 to 100 microns (a micron is one-millionth of a meter). This corresponds to velocities from 4 to 19 cm/sec,

"A record issued by the German Hi Fi Institute . . . has been the nemesis of almost every cartridge we have played it with." which may not sound like much in comparison to some of the information that has been published concerning recorded velocities. Nevertheless, this record has been the nemesis of almost every cartridge we have played it with. A good cartridge will be able to play the 60- or 70-micron level without audible mistracking, but only a handful have been able to cope with the 100-micron level. We find this record useful for setting the antiskating compensation of a tone arm, since the audible distortion will be the same in both channels when it is set correctly.

One of the most useful tools for evaluating a cartridge is the "Audio Obstacle Course-Era III'' (or TTR110) issued by Shure Brothers. This has musical selections recorded at levels from "normal" to far higher than will ever be encountered in real commercial musical recordings. Mistracking can be heard easily, in comparison with the sound of the lowervelocity portions, and the material covers the entire audio-frequency range. In our experience, very few cartridges can play the entire test portion of this record without sounds of distress. Since it requires no instruments and is readily available from Shure, this record is one of the most convenient devices for evaluating the quality of one's own record-playing system.

No one of these tests is in any sense definitive; but taken together they can present a pretty clear picture of the overall quality of a cartridge. Although tests tell us little, except in the most general way, about the "sound" of a cartridge, they do indicate how well it can be expected to handle a variety of difficult recorded material.

So far, nothing has been said about the tone arm in which the cartridge is mounted for these tests. It has been suggested to me that a single, high-quality tone arm whose merit is universally recognized should be used for all cartridge testing. This is a great idea, except that no such universally acclaimed tone arm exists. If it did (the SME might have qualified some years ago, and we did use it then), the acceptance of such an arm would be temporary at best. When a new, "improved" arm appeared on the market, all the advantages of the standardized arm would disappear. Since the tone arm bears much the same relationship to the cartridge that the speaker enclosure does to its drivers, the impracticality of such a proposal becomes even more apparent. Can you imagine testing all speaker drivers in the same "standard" enclosure, regardless of their specific charateristics and individual requirements?

For purely practical reasons, we test cartridges in the tone arms of suitable record players that are on hand for testing at the same time. This minimizes the number of times we have to go through a cumbersome cartridge installation (to us, this is one of the most onerous parts of testing any high-fidelity component). To those critics who feel that we have not used the optimum arm (whatever that might be) for any particular cartridge, we plead guilty, and remind them of the astronomical number of possible combinations of arms and cartridges. We can hardly devote a lifetime to playing mix and match in a search for a sonic Holy Grail!

Of course, we also *listen* to a wide variety of records with every cartridge. However, the present subject is *testing*, not listening; we'll get around to that some other time.

### **Equipment Test Reports** By Hirsch-Houck Laboratories



RECEIVERS have come a long way from their very humble beginnings twenty or so years ago as an economical combination of a basic preamplifier, a (usually) unexceptional AM/FM tuner, and a low-powered amplifier. With today's power race between receiver manufacturers we have reached the point where the current champion, the Marantz 2500, carries a hefty 250-watt-per-channel rating. And all of the other attributes of a highquality separate component system, including control flexibility and tuner performance, have been scaled up to match.

Although space does not permit even an abbreviated discussion of the many advanced circuit features of the 2500, its key performance ratings are a clue to its potential. For example, the audio power rating of 250 watts per channel into 8-ohm loads from 20 to 20,000 Hz, with less than 0.05 per cent distortion, would make the Marantz 2500 a formidable contender among super-power amplifiers, let alone receivers. But, unlike most amplifiers and receivers, the 2500 also has a fullfledged "FTC" 4-ohm rating of 330 watts per channel from 20 to 20,000 Hz, with less than 0.08 per cent distortion. The FM-tuner ratings include a 12.1-dBf 50-dB quieting sensitivity, mono and stereo distortion of 0.1 and 0.2 per cent, respectively, and 50 dB of mid-range stereo separation. The 2500 is not much larger than other receivers with half its power. Its front panel, in satin-finished gold, has the familiar Marantz horizontal tuning control. On the dial plate, with its blue-lit calibrations, are red indicators for STEREO and DLB-1 (an optional Dolby-FM decoder).

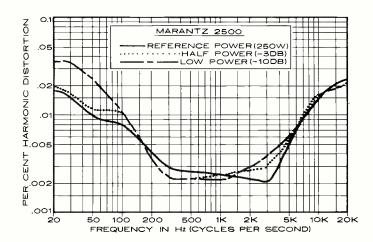
To the left of the dial area is the oscilloscope display, which has traditionally been a feature of the top-ranking tuner in the Marantz line. The 2-inch-diameter cathode ray tube serves as an AM and FM tuning indicator (showing relative signal strength vertically and FM tuning error horizontally), a multipath-distortion indicator, and an audio X-Y display of both channels simultaneously. Next to the scope tube are its spot-positioning controls and the audio-display level control.

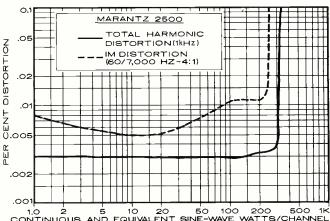
LED's below the dial identify the selected program source (AM, FM, PHONO 1, PHONO 2, AUX, and TAPE). Separate PEAK lights for the two channels flash when the instantaneous power approaches the maximum capability of the amplifier.

Across the full width of the panel, below the dial and scope, is a row of fifteen pushbutton switches. Four of them cross-connect two tape decks for dubbing from either one to the other and provide tape monitoring from either deck. Other buttons turn on the oscilloscope and select its display. Following a horizontalslider BALANCE control with a center detent are buttons that control the low-frequency (15-Hz) and high-frequency (9,000-Hz) filters, both of which have 18-dB-per-octave slopes. The remaining buttons control loudness compensation, the MPX NOISE FILTER, and FM interstation-noise muting. There are separate switches for the two sets of speaker outputs.

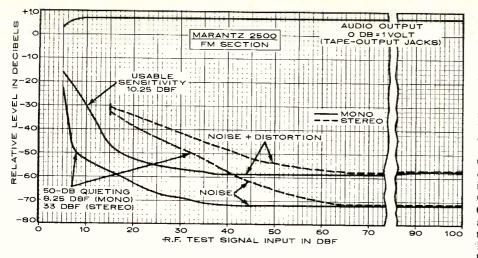
The knob-operated controls are in a row along the bottom edge of the panel. The input selector is conventional, except for its inclusion of a second FM position for Dolbyencoded broadcasts. This not only changes the FM de-emphasis from 75 to 25 microseconds, but also connects the DLB-1 Dolby module if it has been plugged into its receptacle in the rear of the receiver. Each of the three eleven-position tone controls (BASS, MID, TREBLE) is a concentric pair with slipclutch coupling for independent adjustment of the two channels.

The TONE MODE control knob of the Marantz 2500 has five positions, including IN and OUT settings so that the controls can be bypassed. The position marked 100 Hz changes the bass turnover frequency from its normal (but unspecified) value to 100 Hz, and the 10kHz position does the same thing for the treble control. Finally, the 100-Hz/10-kHz position shifts the turnover frequencies of both controls to their alternate values. The midrange tone control is unaffected by these ac-(Continued overleaf)





10 2 5 10 20 CONTINUOUS AND EQUIVALENT 200 500 1K WATTS/CHANNEL



tions, but it too is bypassed in the OUT position of the control.

Completing the front-panel features are the volume control (with forty lightly detented positions), the pushbutton power switch, a headphone jack, and two tape-dubbing jacks (IN and OUT) for connecting a tape deck through the front of the receiver. When this is done, the rear TAPE 2 circuits are bypassed.

On the rear apron of the Marantz 2500, in addition to the various signal connectors, there are PRE OUT and MAIN IN jacks, for inserting accessories between the preamplifier and power amplifier, and an output jack for possible use with some future discrete fourchannel FM decoder. A rectangular socket accepts the optional DLB-1 Dolby Module. When installed, it is controlled by the frontpanel input selector in its FM 25-microsecond position. Insulated spring clips are used for the speaker outputs and binding posts for the antenna connections. There is a pivoted ferrite-rod AM antenna. Screwdriver adjustments control the brightness and focus of the oscilloscope and the FM muting threshold. One of the two a.c. outlets is switched (both are of the three-prong grounding type).

A prominent feature of the rear apron is the cooling-fan exhaust. The output transistors of the Marantz 2500 are mounted in a rectangular tunnel, with long individual cooling fins (actually rods) attached to the transistors and extending into the tunnel. The fan draws air from the top of the cabinet through the tunnel and expells it out the rear. Normally it operates at a very low speed, but if the temperature rises beyond a certain point the fan automatically switches to a higher speed. The Marantz 2500 is 19¼ inches wide, 7 inches high, and 17¼ inches deep. It weighs just under 60 pounds. Price: \$1,750. A walnut-veneer wooden cabinet is available as an option (about \$45). The Dolby module DLB-1 is about \$50.

• Laboratory Measurements. The most impressive feature of the Marantz 2500, from the standpoint of our laboratory tests, was its totally cool operation. At no time during the FTC preconditioning period or the high-power tests that followed did any part of its exterior become even faintly warm to the touch. We have never encountered any other audio component that remained as cool in operation as the Marantz 2500.

Under normal conditions, the fan operates so slowly that it cannot be heard, even close up. Only a faintly warm, barely perceptible breeze emerging from the rear of the fan grille gives a hint of its presence. After about five minutes of one-third-power operation the fan switched to high speed with a roar that could hardly be overlooked. Since this would happen only when the amplifier was delivering considerable power (presumably to loudspeakers), it is unlikely that it would present any problems in actual practice. The thermal "inertia" of the cooling rods is apparently

The efficient cooling system of the Marantz 2500 employs a variable-speed fan. Its exhaust outlet is visible at the lower left of the rear panel. Speaker outlets are located immediately above the fan, and the signal jacks are visible at the lower right of the panel.



quite low, since a minute or two after a normal power-output level was restored the fan dropped back to its lower speed.

In its fully "heated" condition, the Marantz 2500 delivered 306 watts per-channel to 8-ohm loads (at 1,000 Hz) at the clipping point. The 4- and 16-ohm clipping outputs were 473 (!) and 189 watts per channel, respectively. At 1,000 Hz, the harmonic distortion was less than the residual of our test equipment (about 0.003 per cent) from 0.1 to 100 watts, increasing to a barely measurable 0.0035 per cent at 250 watts and 0.0045 per cent at 300 watts just before clipping. The intermodulation distortion (IM) was between 0.005 and 0.01 per cent from 1 to 100 watts, 0.012 per cent at 200 watts, and 0.05 per cent at 250 watts. At the rated 250-watt output, the total harmonic distortion (THD) of the Marantz 2500 was less than 0.003 per cent between 300 and 4,000 Hz aand about 0.02 per cent at 20 Hz and 20,000 Hz. It was not significantly different at lower power levels.

The AUX-input sensitivity was high, so that only 36 millivolts input was needed for a 10watt reference ouput. The phono sensitivity was 0.38 millivolt. The respective unweighted signal-to-noise ratios were 79 and 69 dB. The phono input, in spite of its high gain, did not overload until a very high 220-millivolt input was applied.

The tone controls could be set to produce almost any desired frequency response. When the 100-Hz/10-kHz switch setting was used, the control action was very subtle and concentrated near the limits of audibility. In the "normal" condition, the bass turnover frequency was adjustable from about 150 to 400 Hz and the treble-control action hinged at about 3,000 Hz. The mid-range control had its principal effect between 600 and 1,200 Hz.

The 15-Hz filter had no significant effect in the audio-frequency range. We would strongly suggest leaving it switched in at all times, since this amplifier is capable of destroying most speakers if, for example, somebody dropped a pickup onto the surface of a record. The high-frequency filter response was down 3 dB at 9,000 Hz, as rated, and its 18dB-per-octave slope makes it one of the most effective high-cut filters we have seen in many years. The loudness-control action was moderate, and it boosted both low and high frequencies. The RIAA phono equalization was flat, within  $\pm 0.25$  dB over the extended range of 20 to 20,000 Hz. When measured through the inductance of a phono cartridge, the phono response rose slightly at high frequencies to a maximum of +1.5 dB at 20,000 Hz.

The performance of the FM tuner section provided a few surprises also. The IHF usable sensitivity of 10.25 dBf or 1.8 microvolts (µV) was good by any standards, but this is one of those rare receivers whose quieting curve is so steep that its 50-dB quieting sensitivity is less than its IHF sensitivity. In this case it was at 8.25 dBf (1.5  $\mu$ V), with 5.6 per cent THD. This indicates that the tuner quiets at remarkably low signal levels, while its distortion characteristics are more "normal" for a topquality tuner. The stereo IHF usable sensitivity was 15 dBf (3  $\mu$ V), set by the stereo switching threshold, and the 50-dB quieting point was reached at 33 dBf (24 µV) with 0.7 per cent THD (also representing above-average stereo performance).

The ultimate quieting was 71.5 dB in mono and 70.5 dB in stereo, but these figures were (Continued on page 42)

## It's time for everybody else to start playing catch-up. Again.

From the very beginning, experts have acclaimed the performance and feature innovations of Yamaha receivers as nothing less than spectacular.

But now, we've outdone ourselves.

Yamaha is introducing a new line of receivers with such unprecedented performance, it's already changing the course of audio history.

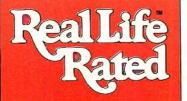
<u>Real Life Rated</u><sup>™</sup> While traditional laboratory measurements provide a good relative indication of receiver performance, they simply don't tell you how a receiver will sound in your living room in actual operation. So Yamaha developed a new standard for evaluating overall receiver performance under real life conditions. It's called **Noise-Distortion Clearance Range (NDCR)**. No other manufacturer specifies anything like it, because no other manufacturer can measure up to it.

We connect our test equipment to the phono input and speaker output terminals, so we can measure the performance of the entire receiver, not just individual component sections like others do. We set the volume control at -20dB, a level you're more likely to listen to than full volume. We measure noise **and** distortion together, the way you hear them.

On each of our new receivers, Yamaha's Noise-Distortion Clearance Range assures no more than a mere 0.1% combined noise and distortion from 20Hz to 20kHz at any power output from 1/10th watt to full-rated power. <u>Four receivers, one standard.</u> On each of our four new receivers, Yamaha reduces both THD and IM distortion to new lows—a mere 0.05% from 20Hz to 20kHz into 8 ohms. This is the kind of performance that's hard to come by in even the finest separate components. But it's

a single standard of quality that you'll find in each and every new Yamaha receiver. From our CR-620 and CR-820 up to our CR-1020 and CR-2020.

What's more, we challenge you to compare the performance and features of our least expensive model, the CR-620, with anybody else's most



expensive receiver. You'll discover that nobody but Yamaha gives you our incredibly low 0.05% distortion and —92dB phono S/N ratio (from moving magnet phono input to speaker output).

You'll also discover that nobody else starts out with such a variety of unique features. Independent Input and Output Selectors that let you record one source while listening to another. A Signal Quality Meter that indicates both signal strength and multipath. The extra convenience of Twin Headphone Jacks. Or the accurate tonal balance provided at all listening levels by Yamaha's special Variable Loudness Control.

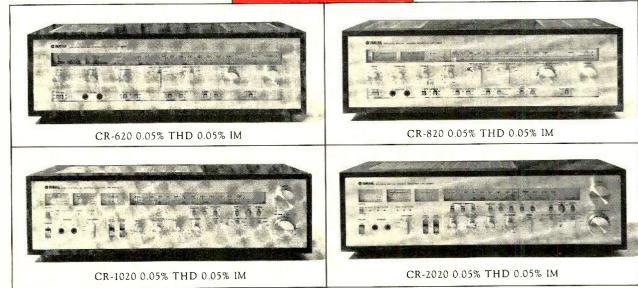
<u>More flexibility.</u> It's consistent with Yamaha's design philosophy that you'll find the same low distortion throughout our new receiver line. Of course, as you look at Yamaha's more expensive models, it's only logical that you'll find the additional flexibility of more power, more functions, and more exclusive Yamaha features.

For example, there's a sophisticated tuner, with unique negative feedback and pilot signal cancellation circuits (patents pending), that makes FM reception up to 18kHz possible for the first time on a receiver. Plus other refinements like a Built-In Moving Coil Head Amp, Fast-Rise/ Slow-Decay Power Meters, and Yamaha's own Optimum Tuning System.

<u>Now's the time to give us a listen.</u> Our new receiver line is another example of the technical innovation and product integrity that is uniquely Yamaha. And your Yamaha Audio Specialty Dealer is an example of uncommon dedication to faithful music reproduction and genuine customer service. It's time you heard them both.

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limited by the tuner's residual (and inaudible) hum rather than by its hiss level. The FM distortion was 0.13 per cent in mono and 0.15 per cent in stereo. In stereo, with out-of-phase (L - R) modulation, it was 0.36 per cent at 100 Hz, 0.1 per cent at 1,000 Hz, and 0.56 per cent at 6,000 Hz.

The stereo-FM frequency response was within  $\pm 0.2$  dB over the full 30- to 15,000-Hz measurement range (and it was down only 0.3 dB from its mid-range level at 15,000 Hz). The channel separation was between 50 and 57.5 dB at frequencies from 350 to 8,500 Hz; it was 40 dB at 30 Hz and 37 dB at 15,000 Hz.

The FM capture ratio was 1.05 dB at a 65dBf (1,000- $\mu$ V) input and 1.56 dB at 45 dBf  $(100 \ \mu V)$ . The respective AM rejection figures at these inputs were 63 and 72 dB. The image rejection was 88.5 dB and alternate-channel selectivity was 76 dB. Adjacent-channel selectivity was 9 dB. The factory setting of the muting threshold was 17 dBf (3.8 µV), which we found perfectly satisfactory, although it could have been adjusted easily if this had been desired. The stereo switching threshold was 15 dBf (3 µV). The 19-kHz pilot carrier leakage was -70 dB, and the tuner's hum level was -71 dB. The only measurement made on the AM tuner section was of its frequency response, which was down 4.5 dB at 20 Hz and 6 dB at 4,000 Hz relative to 1,000-Hz.

• Comment. If we had to give a capsule review of the Marantz 2500, we would say that

(for a receiver, at least) it has an averagequality AM tuner, a considerably better-thanaverage FM tuner, and a superb audio amplifier. The amplifier should not be compared only to those in other receivers. It ranks with the most powerful amplifiers one can buy for home use, and it is a very, very good one in addition to being the coolest, by far, that we have tested. For those who are concerned with slew-rate considerations, we measured a 30-volt-per-microsecond slew rate on the Marantz 2500, which is certainly more than adequate. Also, with a mixed 19,000- and 20,000-Hz input signal driving the amplifier to within 0.1 dB of its clipping condition, the only distortion product detectable in the audio range was a -76-dB component at the 1,000-Hz difference frequency.

Obviously, in matters of performance, the Marantz 2500 is a truly first-rate product. What about the human-engineering aspects of this massive "all-in-one" unit? In most respects we would have to rate it good to excellent. An oscilloscope, though expensive, is the ideal tuning and multipath-distortion indicator. All the controls worked smoothly, with no surprises (and with all that power available, there had better not be any sudden noises!). The Dolby-FM sound was truly excellent, and this is one of the few receivers with Dolby processing that makes Dolby broadcasts sound unequivocally better than they do in their unprocessed state with a 75microsecond tuner de-emphasis. We found that the Model 2500 was far easier to handle and install than its 60 pounds would suggest. A centrally located toroidaltransformer power supply, which minimizes mass unbalance, is largely responsible for this happy fact. In addition, we are pleased to note that the receiver is somewhat lighter than many of its less powerful competitors.

Our one complaint about the Marantz 2500 is that, when listening to FM even with our least efficient speakers, we were never able to operate the volume control above the lowest quarter of its range. With more normally efficient speakers we rarely moved the knob beyond the lowest four or five steps (out of a total of forty). This is a function of the tuner section's output level, and a tuner-level adjustment accessible from the rear or bottom of the receiver would have been helpful.

Aside from this minor criticism, we found ourselves completely satisfied or—better yet—totally impressed with the performance of the Marantz 2500. If you are among that large group of consumers who want high power in a receiver format, you should be aware that the Marantz 2500 is, at the moment, the most powerful of its type available.

As for the possible risk of putting all one's hi-fi eggs in a single \$1,750 basket, we can only point out that the Marantz 2500 is a wonderfully robust, cool-running "basket" that evidences an intelligent, conservative, stateof-the-art design approach throughout.

Circle 105 on reader service card



THE Sanyo RD5300 is an inexpensive, compact, front-loading cassette deck with a combination of performance and features that is rarely found in its price range. A first impression of careful design and workmanship comes when the EJECT key (one of a row of conventional "piano key" transport controls below the cassette compartment) is pressed, causing the hinged door to swing open slowly and silently. The cassette loads into guides inside the door, which is then pushed flush with the panel for operation. Almost the entire cassette can be seen through the transparent window in the door, and an orange backing allows

the user to see how much tape remains on each hub. The door front is designed to come off easily, providing access to the heads for cleaning and demagnetizing.

The door is flanked by a pushbutton power switch, the index counter, and a lever marked TIMER STAND BY. This is used when one wishes to leave the machine in a ready-tooperate condition (in either recording or playback modes) to be started later by an external timer switch. When the controls have been set as desired, the PAUSE lever is pressed, then the TIMER STAND BY lever. This disengages the pressure roller; when power is again applied, the PAUSE function is released and the machine goes into operation.

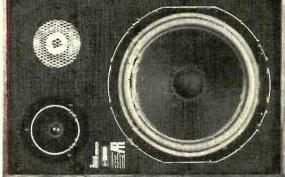
At the upper right of the panel are two large illuminated meters. Below them is what appears to be a large knob. On closer examination, it proves to be a pair of concentric controls surrounded by an adjustable ring whose reference mark can be set against a calibrated scale on the panel. These controls serve a dual purpose, setting both the recording and playback levels (this is one of the few concessions to economy that we found in the RD5300). Since these settings are almost certain to be different for the two modes of operation, the reference ring can be set to match the knob index mark when recording. Then, regardless of where the controls are set for playback, it is easy to return them to the preset recording level.

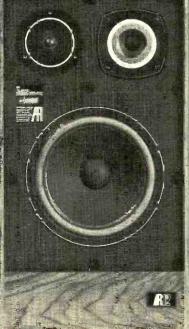
The remaining controls are a row of pushbuttons along the lower right portion of the panel. The RD5300 has separate recording-bias and equalization controls. The latter consist of two mechanically interlocked buttons marked NORMAL and  $CrO_2/FeCr$  (for 120- and 70-microsecond characteristics), and the former is a two-position button marked HIGH and LOW. Two red LED's above the EQ buttons show when correct recording conditions have been established for  $CrO_2$  and FeCr tape (the latter uses Low bias and 70microsecond equalization).

Other buttons activate the recorder limiter (which goes into operation at levels above 0 dB to prevent distortion) and the Dolby sys-(Continued on page 44)

# TRUTH IN LISTENING







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. 18



Call it accuracy. Or faithful reproduction. Or flat energy response. We at AR simply call it "truth in listening," and when

you think about that you realize it's what high-fidelity is all about.

And it's one of the reasons the hottest new name in speakers seems to be the one you've known for so many years: AR.

Because we've made some changes, always remembering that "truth in listening" made us what we are today.

AR ST N

We've refined styling. We've added new models so that the ones you see here

cover the market from about \$65 to about \$450.

We've improved powerhandling with revolutionary liquid-cooled drivers.

And if all this sounds good, ask about the AR warranty on performance.

You'll like what you hear, and that's a promise.

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

TELEDYNE ACOUSTIC RESEARCH 10 AMERICAN DRIVE, NORWOOD, MASSACHUSETTS 02062 IN CANADA A C. SIMMONDS & SONS LTD CIRCLE NO. 1 ON READER SERVICE CARD tem (a red LED shows when this is in use) and switch the recording inputs between LINE and MIC sources. There are two microphone jacks and a stereo-headphone jack on the front panel. The signal connectors, including a DIN socket, are on the rear of the machine. The Sanyo RD5300 is about 16½ inches wide, 10½ inches deep, and 6¼ inches high. It weighs slightly more than 13 pounds. Price: \$179.95.

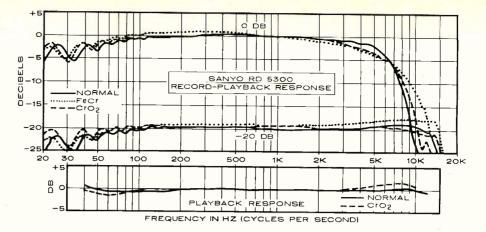
• Laboratory Measurements. Although the instruction manual for the Sanyo RD5300 does not specify the tapes for which it has been adjusted, a test curve supplied with our sample indicated that it had been set up for TDK AD (NORMAL), TDK SA (CrO<sub>2</sub>), and Sony FeCr (FeCr). It is our practice whenever possible to use the manufacturer's recommended tapes in our tests, but on measuring the response with TDK AD it was apparent that the machine was underbiased for it, thus giving a rising high-end response. Similar but slightly less extreme results were obtained with Scotch Master and Maxell UD-XLI. We obtained the flattest frequency response with Memorex MRX<sub>2</sub>, which was used for our other tests.

The overall record-playback frequency response at a -20-dB level, with MRX<sub>2</sub> tape, was within  $\pm 1$  dB from 70 to 13,000 Hz. The rolloff of response at lower frequencies was gradual, but it dropped sharply above 13,000 Hz. With the CrO<sub>2</sub> settings the TDK SA gave a very flat response, within  $\pm 1$  dB from 40 to 14,000 Hz. Maxell UD-XL II was also tried; it had a marginally better high-end response, extending to 15,000 Hz. A true CrO<sub>2</sub> tape, BASF Chromdioxid Super, gave a slightly peaked high-end response, reaching  $\pm 3.3$  dB at 14,000 Hz. Ferrichrome tape gave a response much like that of the CrO<sub>2</sub> tapes, within  $\pm 1.5$  dB from 60 to 15,000 Hz.

The playback frequency response (NOR-MAL) was measured with the new TDK AC-337 test cassette. It was within  $\pm 0.7$  dB over the 40- to 12,500-Hz range of the test tape. The CrO<sub>2</sub> (70-microsecond) playback response, measured with a Teac 116SP test tape, was within  $\pm 1.5$  dB from 40 to 10,000 Hz. The tracking of the Dolby circuits (the change in overall record-playback response, with and without the Dolby system in use) was acceptable, showing deviations of up to 2 dB up to around 12,000 to 13,000 Hz at levels of -20 and -40 dB.

For a recording level of 0 dB, a line input of 55 millivolts (mV) and a microphone input of 0.2 mV were required. The microphone input overloaded at a rather low 24 mV, suggesting a need for caution when making recordings of loud live performances with high-output microphones. The limiter worked effectively (although it would not affect microphone-amplifier overload). It had no effect until the level slightly exceeded 0 dB, yet reduced a +10-dB signal to the equivalent of 1.5 dB with negligible distortion. The meters had a 10 per cent overshoot on 0.3-second tone bursts.

From a 1,000-Hz signal recorded at 0 dB, the maximum playback level was 0.82 volt with MRX<sub>2</sub>, 1.1 volts with TDK SA, and 0.86 volt with FeCr tape. The playback distortion (third harmonic) from a 0-dB signal level was 0.6 per cent with MRX<sub>2</sub>, and 1.6 per cent with the other tapes. The reference level of 3 per cent distortion was reached with input levels of +5 dB, +2.5 dB, and +3 dB with the MRX<sub>2</sub>, SA, and FeCr tapes. The standard Dolby level of 200 nW/M falls at a +2-dB meter



reading, and the indicated level was within 0.5 dB of the correct value. The signal-to-noise ratio referred to the 3 per cent distortion condition for the above three tapes was, respectively, as follows: unweighted, 50 dB, 51.5 dB, 47 dB; IEC "A" weighted, 58.3 dB, 61 dB, 57.5 dB; CCIR/ARM weighted, 55 dB, 57.5 dB, 56 dB; and CCIR with Dolby, 64.7 dB, 66 dB, 61 dB. The noise level through the microphone inputs at maximum gain was 9 dB higher than through the LINE inputs, but at lower gain settings it was considerably less.

The unweighted rms flutter of the Sanyo RD5300 was 0.07 per cent both in a combined record-playback measurement and with an Aiwa test tape. The interchannel crosstalk with a TDK AC-352 tape was -50 dB at 1,000 Hz. The transport rewound a C-60 cassette in about 82 seconds. The headphone listening level, with 200-ohm phones, was reasonably good. It was not affected by the setting of the playback-level controls.

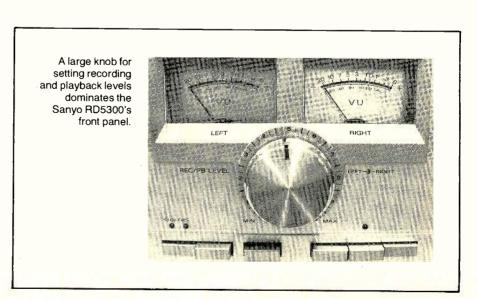
• Comment. To judge the value offered by the Sanyo RD5300, consider its features: a very smooth-working front-loading mechanism, timer operation, separate bias and equalization switches for the three basic tape formulations, a peak limiter, microphone inputs, headphone output, and Dolby noise reduction. This is what one might expect in a recorder twice the price of this one, and we were frankly surprised to find all these features in such an inexpensive product. Just about the only features found in some higherprice decks and not in this one are a memoryrewind system, separate recording- and playback level controls, and microphone-line mixing.

The Sanyo's features would be of little significance if the machine did not also perform well. It does—and not merely "well," but rivaling in most respects all but the most de luxe and expensive cassette recorders. For example, when we recorded interstation FM-tuner hiss at a -10-dB level, the playback sound was essentially indistinguishable from the input.

Because of its very flat response, low distortion, good signal-to-noise performance, and a flutter level well below what we have measured on some more costly machines, the Sanyo RD5300 left us with that pleased feeling that sometimes follows our product testing. We had found a component that not only did what was claimed for it, and more, but also did its job much better than one could reasonably expect from a unit in its price range. In fact, we have seen many recorders at twice the price that could not match this one in total performance. If we were inclined to give "best buy" ratings, this machine would certainly qualify.

Circle 106 on reader service card

(Continued on page 46)



### THE INSIDE STORY ON AKAI'S GREAT PERFORMANCE.

### AKAI GXC-730D

Wow and Flutter: less than 0.08% WRMS

Frequency Response: 30 to 17,000 Hz (±3 dB using FeCr tape)

Distortion: less than 1.5% (1,000 Hz, "O" VU)

### Signal-to-Noise Ratio: better than 60 dB using LN tape with Dolby on (measured via tape with peak recording level of +3 VU)

Bias Frequency: 100 kHz

### Heads: (3) one GX recording/

playback head for forward and reverse direction; two erase heads.

### Motor:

4-pole hysteresis synchronous motor

### **Dimensions:**

17.3"W x 6.9"H x 11.9"D

Weight: 27 lbs.

### GREAT PERFORMANCE FEATURES:

Automatic stop or stop and play mode from fast forward or rewind with "memory wind." Soft touch solenoid AKAI's Automatic Distortion Reduction System, limiter circuit to cut distortion microphone or line input selector, peak level indicator and reverse selector.



### DON'T INTERRUPT LIFE'S GREAT PERFORMANCES.

With the new AKAI GXC-730D, great moments in music aren't shattered by those not-so-great moments in cassette rewinding and flipping.

Instead, a bi-directional GX record/playback head allows you to play both sides continuously. Automatically. And you can play or record both sides without ever having to stop and physically turn the cassette over.

The fact that the 730D is the most versatile front-loading cassette deck on the market is just the beginning. It's also loaded with some pretty fantastic features.

Like Dolby\* and AKAI's exclusive

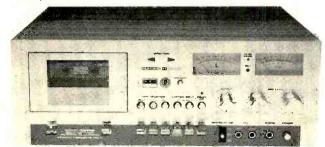
Automatic Distortion Reduction System (ADRS). Memory rewind. Pause control. Separate right and left channel record level controls. Soft touch, direct function operating controls. Peak level indicator. Illuminated VU meters. A great-looking walnut-grained vinyl cover. And all the specs you'd expect an AKAI top performer to deliver.

Hear it at your dealer's.

The AKAI GXC-730D. Dedicated to the proposition that some of your performances are just too good to interrupt.

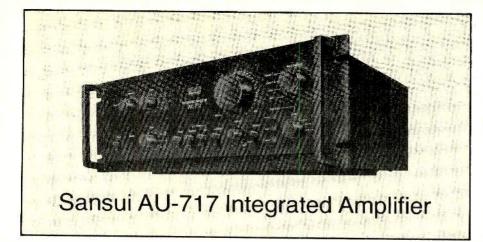


\*Dolby Labs, Ltd.



ART COLLECTORS:

For an 18" x 24" reproduction of this Charles Bragg etching suitable for framing, send \$2 to AKAI, Dept. SR, P.O. Box 6010, Compton, CA 90224, ATTN: Lovers.



**S**<sup>ANSUI's</sup> finest integrated amplifier, the AU-717, has been designed, according to the manufacturer, to "solve the audible problems of Transient Intermodulation Distortion (TIM)." To this end, it incorporates a fully direct-coupled power-amplifier section whose frequency response varies less than +0, -3 dB from 0 (d.c.) to 200 kHz. The amplifier's power rating is 85 watts per channel from 20 to 20,000 Hz into 8-ohm loads, with less than 0.025 per cent total harmonic distortion.

The preamplifier section of the AU-717 has two capacitor-coupled stages (these are the only capacitors between the signal inputs and the speaker outputs). It has very impressive specifications for frequency response, equalization accuracy, and noise levels. Like some other recent amplifiers, the AU-717 has dual power supplies, including separate power transformers, for its two channels.

The Sansui AU-717 is finished entirely in black, with highly legible panel markings and red index lines on the knobs to show their settings clearly. The input selector at the upper right of the panel has positions for two highlevel and two phono sources. The LED indicators next to the knob light up to show at a glance which input has been selected. To the left is a large volume knob that operates a thirty-two-step attenuator with light but positive detents. At high settings, the volume is varied in 1-dB steps, increasing to 2-dB steps between -12 and -40 dB and still larger steps at lower settings.

The AU-717 has exceptionally comprehen-

sive tape-recording and monitoring facilities. Three mechanically interlocked buttons channel either the SOURCE or the TAPE PLAY signals from one of two tape decks through the amplifier. Next to them is the COPY switch, whose SOURCE position connects the selected program to both pairs of recording outputs (as is the practice on most amplifiers). In the TUNER position, the program is connected to the tape recorders regardless of the setting of the input-selector control, so that it can be recorded while one is listening to a record, tape, or other program source. Two positions of the COPY switch interconnect the two tape decks for copying from either one to the other, during which time one can listen to any other program through the amplifier (or, by pressing the appropriate TAPE PLAY button, monitor the output from either tape deck). Finally, there is an OFF setting which removes all signals from the tape-recorder output jacks.

To the left of the tape controls is a MUTING switch that drops the audio level by 20 dB for temporary interruptions. A small BALANCE control knob below the volume control has a center detent. At the lower center of the panel are four lever switches for LOUDNESS compensation, HIGH filter (6 dB per octave above 10,000 Hz), SUBSONIC filter (cutting off below 16 Hz), and TONE control defeat.

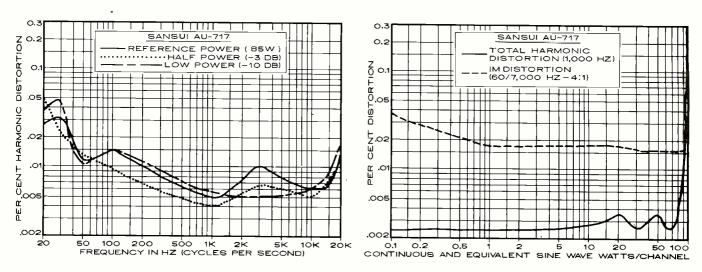
Each of the two tone controls has eleven detented positions. Next to each knob are two buttons that select its turnover frequency. For the treble control these are 3,000 and 6,000 Hz; for the bass control they are 200 and 400 Hz. At the upper left of the panel is the SPEAKERS switch, which connects either, both, or neither of two pairs of speakers to the amplifier outputs. Below it is a PHONES jack and a lever switch for POWER. A red LED power/PROTECTOR light at the upper-left corner flashes on and off for several seconds when the amplifier is first turned on (before the amplifier outputs are connected to the speakers), after which the light glows steadily. Any d.c. offset voltage at the outputs, caused by an overload or a component failure, instantly disconnects the speakers and causes the light to blink until the power has been shut off and turned on again (with the fault remedied).

In the rear of the AU-717, insulated spring clips are used for speaker connections. In addition to the various signal input and output jacks, there are PRE OUT and POWER AMP IN jacks which are normally joined by a threeposition slide switch below. To use the preamplifier and power amplifier separately, or to connect a signal-processing accessory between them, the switch is moved to one of its SEPARATED settings. One of these retains the fully direct-coupled operation of the power amplifier, while the other connects a blocking capacitor in the signal path for use with devices that may have a d.c. voltage at their output. One of the three a.c. outlets is switched.

The Sansui AU-717 is 17 inches wide, 153% inches deep, and 65% inches high. Handles and protective "bumpers" for the back panel are supplied; their use is optional. The amplifier weighs about 39 pounds. Price: \$450.

• Laboratory Measurements. The hour of preconditioning at one-third rated power, followed by five minutes at full power, resulted in only a moderately warm amplifier, even directly above the power transistors. With both channels driven at 1,000 Hz into 8-ohm loads, the outputs clipped at almost exactly 100 watts per channel. The 4- and 16-ohm clipping levels occurred at powers of 128 and 64 watts, respectively.

The total harmonic distortion (THD) at 1,000 Hz was less than 0.004 per cent from 0.1 watt to about 80 watts output, increasing to 0.01 per cent at 90 watts just before clipping occurred. The intermodulation distortion (IM) was 0.036 per cent at 0.1 watt and 0.015 per cent from several watts to more than 90 watts output. (Continued on page 48)



Having minimized the distortions caused by rumble, wow and flutter, our engineers turned to the most disturbing distortions of all – those in the phonograph record itself.

The Music Recovery Module.®

Announcin

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that's as

Here is the solution: a component that electronically identifies and filters the pops, clicks and scratches before they reach the listener's ears. What comes through

is the music – and only the music.

### The way it works.

The Music Recovery Module employs an ingenious patented detector which is programmed to recognize the unique waveform of a noise impulse (pop, click or scratch) and activate an electronic control to suppress the noise to far below the level of the music. A "bucket brigade" provides a 2.7 millisecond time delay

during which the noise im-

pulse is suppressed...long before you hear it.

### What it will do for you.

The Music Recovery Module will deepen your enjoyment of records — the prime source of music in the home. It will "renew" your older records. It will even make your new records sound better.

> Visit your Garrard dealer for a dramatic demonstration. You'll hear why the Music Recovery Module belongs in your system. If you'd like complete information, write: Garrard, Dept. A, 100 Commercial Street, Plainview, N.Y. 11803.

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At full power, the THD was less than 0.016 per cent (typically 0.01 per cent) from 40 to 20,000 Hz. It appeared to increase slightly at lower frequencies, but this proved to be residual distortion in our signal generator. The actual amplifier distortion was unmeasurablé. The signal level required to drive the amplifier to a reference output of 10 watts was 49 millivolts at the high-level inputs and 0.84 millivolt at the phono inputs. The unweighted signal-to-noise ratio referred to 10 watts was 83.4 dB (high-level) and 77.1 dB (phono), both excellent figures. The phono-preamplifier section overloaded at a very high 380-millivolt input level.

The tone controls affected only their indicated frequency ranges. For example, with a 200-Hz turnover frequency, the bass control had a sliding turnover frequency from 200 Hz downward, so that intermediate settings modified the response only at frequencies of 100 Hz or below. The treble-control curves were hinged at approximately the indicated frequencies. The loudness compensation boosted both low and high frequencies, the latter to a considerable degree, as the volumecontrol setting was reduced. However, by using the MUTING switch, it was often possible to operate the volume control in the upper part of its range and achieve a more pleasing loudness compensation.

The subsonic filter appeared to have a very gradual slope, its effect becoming visible on the curve at about 50 Hz. However, the HIGH filter was definitely of the 6-dB-per-octave type (its response was down 3 dB at 7,000 Hz), and it was of negligible value for noise-reduction. The RIAA phono equalization was extremely accurate, with an error of less than

 $\pm 0.5$  dB over the extended range of 20 to 20,000 Hz. There was no discernible change in phono response when it was measured through the inductance of a phono cartridge.

The measured rise time of the entire amplifier from the AUX input was about 1 microsecond, well under the rated 1.8 microseconds. With a 2-microfarad capacitor across the 8-ohm load resistor, the response was slowed to about 6 microseconds. The slew rate of the AU-717 was the fastest we have measured on any amplifier, an impressive 60 volts per microsecond.

These characteristics, especially the high slew rate, are consistent with a low-TIM design. Although there are no accepted standards for measuring TIM, one which has been suggested is the standard CCIF differencetone IM test. Two equal-amplitude high-frequency test tones (for example, 19,000 and 20,000 Hz) are fed simultaneously to the amplifier under test, which is driven to an output just below its clipping level. The IM products, particularly the difference frequency of 1,000 Hz, are measured on a spectrum analyzer. We have only recently begun using this test, so that our backlog of experience is limited. On a couple of receivers of presumably high quality the measured IM was only about 55 dB down, together with many other spurious products. In the case of the Sansui AU-717, the results of this test were unequivocally impressive. With the output less than 0.2 dB below the clipping point, the IM at 1,000 Hz was 75 dB below the level of each tone. No other distortion products were seen down to the noise "floor" of approximately -80 dB.

So far, we have not been able to detect TIM

(or its absence) audibly. In any case, it is clear that the Sansui AU-717 is as free of this form of distortion as it is of all the more conventional types.

• Comment. It is a trifle difficult to make meaningful subjective comments about an amplifier like the Sansui AU-717. So far as we are concerned, it does everything we could expect of a de luxe integrated amplifier. It does its job at least as well as any other amplifier we have seen, and better than most. It also does it far better than is required by any audible considerations. It sounded to our ears exactly as any other fine amplifier sounds, neither adding to nor subtracting from the program material. Anything beyond that would have to be considered a defect, and we found no sign of any such in the AU-717. Those people who are convinced that TIM is a problem should by all means look at (and listen to) the AU-717. If any amplifier is free of TIM or any other slew-rate induced distortion, it is this one.

Flexibility it has—all that we can imagine needing. Good human engineering, in the marking and "feel" of the controls, separates this unit from some otherwise fine products we have seen that were not quite as well designed from the user's standpoint. We gave the amplifier's protective system a thorough workout, with overloads and short circuits aplenty, and it never let us down. And at no time did any part of the amplifier case become too hot to rest one's hand on. On the remote chance that our message has not been clearly understood: the Sansui AU-717 is a superb amplifier. We like it with no ifs, ands, or buts.

Circle 107 on reader service card



**ONE** of the most common problems in reback. This is the result of the loudspeaker output's being picked up by the phono cartridge because sound vibrations have been conducted through the installation itself (the shelving, rack, or cabinetry) or through the walls, floor, or air to the turntable base. If the vibration causes a relative motion between the tone arm and the record, the pickup cartridge responds as if it were the recorded program and delivers an electrical signal at the vibration frequency to the amplifier, where it is further amplified, to take another trip through the feedback "loop"—and so on.

Depending on the frequency and strength of the feedback, the audible result may be a deep rumbling that, if left unchecked, could damage a woofer, or a higher-pitched howl that would be no less dangerous to mid-range drivers. Probably much more common is the case where the feedback is not strong enough to induce a continuous oscillation, but merely muddies the sound. In a mild case, this may go unnoticed, at least until the volume is substantially increased (for whatever reason), making the effect much more audible. However, the improvement in clarity when a case of incipient feedback has been cured is audibly unmistakable.

Related to feedback is a record player's excessive sensitivity to jarring, whether from people walking across the floor or from anything else that happens in normal use. This is not actually feedback, since it is subsonic and cannot be reinforced by the output of a speaker, but it is much the same problem translated to a different frequency range.

There are some things that a designer can do to minimize a player's sensitivity to feedback or jarring, although the details of any (Continued on page 50)

# THE TAPE THAT'S **TOO GOOD FOR MOST** EQUIPMENT.

Maxell tapes are not cheap.

In fact, a single reel of our most expensive tape costs more than many inexpensive tape vacuumed. recorders.

Our tape is expensive because it's designed specifically to get the most out of good high fidelity components.

So it makes no sense to invest in Maxell unless you have abrasive head cleaner

no one gets into our manufacturing area until he's been washed, dressed in a special dust-free uniform and -

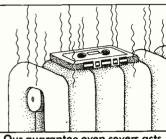
### WE CLEAN OFF THE **CRUD OTHER TAPES** LEAVE BEHIND.

After all the work we put into our tape, we're not about to let it problem with any go to waste on a dirty tape recorder head. So we put special non-

### **OUR TAPE COMES WITH** A BETTER GUARANTEE THAN YOUR TAPE RECORDER.

Nothing is guaranteed to last forever. Nothing we know of, except our tape.

So our quarantee is simplicity itself: anytime you ever have a Maxell cassette, 8-track can send it back and aet a new one.



Our guarantee even covers acts of negligence.

sounds at your nearby audio dealer.

(Chances are, it's or reel-to-reel tape, you what he uses to demonstrate his best tape decks.)

| [ | 57 53 |                               | 577                        |        |                     |
|---|-------|-------------------------------|----------------------------|--------|---------------------|
| Ī |       |                               |                            | //     |                     |
|   |       | No other tape starts off by a | leaning off your tape reco | order. | You'll be surprised |

equipment that can put it to good use.

THE REASON OUR TAPE SOUNDS SO GOOD IS **BECAUSE IT'S MADE SO** CAREFULLY.

Every batch of magnetic oxide we use gets run through an electron microscope. Because if every particle isn't perfect, the sound you hear won't be either.

And since even a little speck of dust can put a dropout in tape,



Every employee, vacuumed.

on all our cassettes and reel-to-reel tapes. Which is something no other tape company bothers to do.

### **OUR CASSETTES ARE PUT TOGETHER** AS CAREFULLY AS OUR TAPE.

Other companies are willing to use wax paper and plastic rollers in their cassettes. We're not. We use carbon-impregnated material. And Delrin rollers. Because nothina sticks to them.

A lot of companies weld their cassettes together. We use screws. Screws are more expensive. But they also make for stronger cassettes.

GIVE OUR TAPE A FAIR HEARING. You can hear just how good Maxell tape

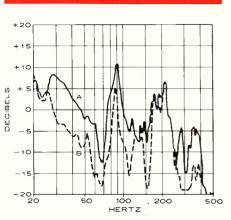
You'll be surprised to hear how much more music good equipment can produce when it's equipped with good tape.



Maxell Corporation of America, 130 West-Commercial Ave., Moonachie, New Jersey. 07074

CIRCLE NO. 42 ON READER SERVICE CARD

particular installation are, of course, beyond his control. If the tone arm is so coupled to the platter that the two must always move as a unit, there can be no cartridge output from external vibration, and hence no feedback. This coupling is done on some record players, but it can never be completely successful because it cannot be equally effective at all feedback frequencies.



Phono-pickup response to 20- to 500-Hz mechanical vibrations applied to the turntable base without (curve A) and with (curve B) the AT-605 audio insulators supporting the base.

Another approach is to mount the record player on very compliant supports so that the entire system has a subsonic resonance frequency such as 4 Hz. Vibration coming through the supporting shelf at audio frequencies will then not be able to excite the recordplayer system into motion, thus preventing feedback. However, this may make the system more sensitive to such subsonic jarring as might result from normal handling of the record-player controls. To minimize this problem, the mounting feet can be damped with felt or some other material that reduces the sensitivity of the system at its resonance frequency. Sometimes this is effective, but more often it is not.

Any combination of these methods can of course be used, and often is. Variations in individual installations make it virtually impossible for a record-player manufacturer to design a foolproof isolation system.

One possible solution for those plagued by feedback is to use accessory mounting feet, such as the Model AT-605 manufactured by Audio-Technica. The AT-605 consists of a set of four feet and a bubble level that can be placed on the record-player surface. Each foot, about 23/4 inches in diameter and 11/2 inches high, consists of an aluminum outer shell with a center section that can be run up or down on a threaded center screw over a range of approximately 1/4 inch. Although the center portion feels like it is spring-mounted, it is actually made of rubber. A felt pad on top of the foot provides some damping. The underside of the entire foot is covered by a rubber disc from which a large number of small rubber "feet" protrude.

As normally used, the four Audio-Technica feet are placed under the four corners of the turntable. A-T suggests that the original mounting feet of the record player not be used, but in any case experimentation is necessary to determine the most effective technique. For example, it may be best to use only three feet, spaced 120 degrees apart. Since each foot is rated to support up to about 9 pounds, it may be necessary with some very heavy turntables to use more than one A-T foot under each corner, or at least under any corner where the downward force exceeds 9 pounds. Still another suggested procedure is to use the A-T feet under the speakers to reduce vibration conducted through the floor.

Since the height of each one is individually adjustable, the feet make it possible to level any turntable accurately. The bubble level supplied with the AT-605 set simplifies this job. Price: \$24.50.

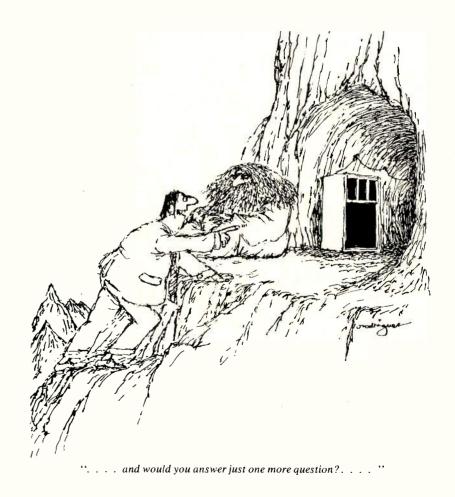
• Laboratory Measurements. In view of the unlimited possibilities for effective installation of the AT-605 Audio Insulators, it is difficult to make any meaningful measurements of their effectiveness ("meaningful" in the sense that they would apply without exception to other installation conditions).

We set up a record player on the four vibration drivers that we use to judge the effective-

plotter, and the amplified and RIAA-equalized cartridge output was plotted simultaneously on the chart. Then the test was repeated on the same chart with the AT-605 feet installed under the record player. The difference between the two curves was taken to indicate the isolation afforded by the AT-605 over the test-frequency range of 20 to 1,000 Hz. The AT-605 reduced coupling to the pickup through the turntable base by 5 to 10 dB at most frequencies from 25 Hz to just over 100 Hz. This degree of improvement might make the difference between feedback and clean reproduction in many cases. And, of course, it is quite possible that further experimentation, or the use of a different record player, would have yielded different results, either better or worse.

• Comment. Without attempting to make more of our admittedly crude test than is warranted, we can nevertheless conclude that the Audio-Technica AT-605 does offer a potentially worthwhile reduction of acoustic feedback from base-conducted vibration.

Whether or not the cost of the AT-605 is justified obviously depends on the severity of the problem and the degree to which it would



ness of the base isolation of record-player systems. The four drivers were placed underneath the corners of a piece of heavy plastic on which we put the record player. With the cartridge stylus resting on a stationary record, the vibrators were driven from the swept output of our General Radio frequency-response be ameliorated by the mounting feet. Neither of these matters is predictable, but certainly the AT-605 audio-insulator feet take a step in the right direction.

Circle 108 on reader service card

(Continued on page 52)

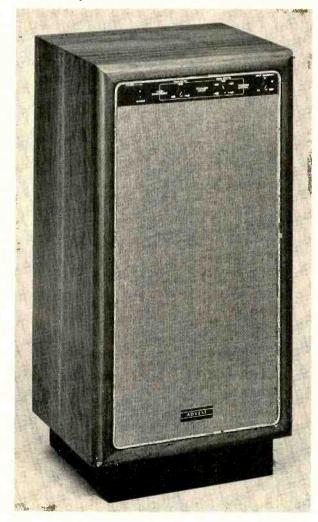
(An Integrated Amplifier-Speaker Using Biamplification.)

## The Powered Advent Loudspeaker.

We have felt for quite a while at Advent that the next logical step in speaker design, the one that would combine more real benefits than any other, would be to develop a carefully integrated amplifierspeaker system.

The Powered Advent Loudspeaker is that product —an acoustic suspension speaker system with builtin biamplification that drives its woofer and tweeter separately. It is a product that must be heard by anyone who would like the closest possible approach to "live" sound in a speaker.

The Powered Advent will produce very loud, lifelike listening levels in a home without sacrificing any of the very wide frequency range needed for ultimate clarity and definition of musical instruments.



(Many of the large conventional multi-speaker systems designed to produce this amount of sound give up a significant amount of frequency range in the process.)

At all listening levels, the Powered Advent has a totally open, unstrained sense of ease that is the product of very low distortion. Its biamplification overcomes the biggest single obstacle to totally realistic, undistorted sound at high levels. That obstacle has been the audible effects of amplifier clipping, which are generally triggered by mid-bass or midrange musical material, but which occur in the form of harsh, non-musical harmonics at higher frequencies. With the Powered Advent's use of biamplification, clipping generated at low and middle frequencies has *no* audible effect at high frequencies, which are handled by a separate amplifier.

**B** It has unique control features to maximize audible performance, including two active response-contouring controls (operating under 100 Hz and above 3,000 Hz) and a subsonic filter that prevents record warp, feedback and other ultra-low-frequency disturbances from causing IM distortion and robbing available amplifier power.

■ It has four unique circuits (three of them analog computers) that guard against tweeter or woofer damage, output transistor failure and amplifier overheating.

**I**t can be driven by a preamp or tuner-preamp (such as the tuner-preamp section of the Advent Model 300 Receiver) or directly from the speaker output terminals of an amplifier or receiver.

It provides all of its performance at a cost ( $$450^*$ ) that is less than most combinations of good speakers and high-power amplifiers, and at a size that fits comfortably into a living room.

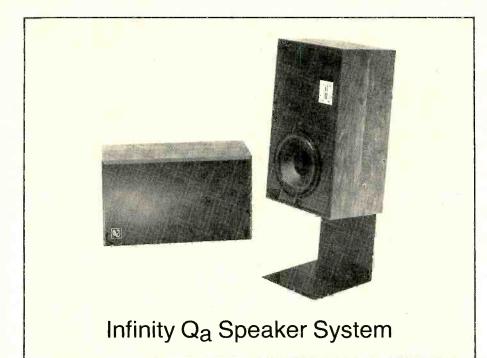
For more information on the design and capabilities of the Powered Advent Loudspeaker, please send us the coupon or call us (toll free) at (800) 225-1035. In Massachusetts, the non-free number you should call is (617) 661-9500.

Thank you.

| Advent Corporation, 2<br>Cambridge, Massachu   |     |  |  |  |
|--|-----|--|--|--|
| Please send information on the Powered Advent<br>Loudspeaker and a list of Advent dealers. |     |  |  |  |
| Name   |     |  |  |  |
| Address  |     |  |  |  |
| City   |     |  |  |  |
| State  | Zip |  |  |  |

Advent Corporation, 195 Albany Street, Cambridge, Massachusetts 02139.

\*Suggested price, subject to change without notice.



THE Quantum series of speaker systems from Infinity all include a novel tweeter of the company's own design. From the \$1,250 Quantum Line Source to the \$145 Model Qa, the same high-frequency driver is used (in multiples on the more expensive models) to give a very wide-range, well-dispersed treble response.

In the bottom-price Model Qa, a single electromagnetic induction tweeter (EMIT) is paired with a new 10-inch "Q-woofer" specially developed to complement the tweeter's characteristics. The EMIT does not resemble conventional tweeters whose cones or domes are driven by cylindrical voice coils. It has a flat, very-low-mass plastic diaphragm with a pattern of etched conductors in two parallel groups along the length of the diaphragm. The conductors are in a powerful magnetic field provided by two samarium-cobalt magnets. The audio-signal current passing through the conductor pattern causes the diaphragm to move back and forth in the magnetic field, displacing air and creating a pressure wave that issues through four narrow slots in the metal faceplate.

Because of its limited diaphragm excursion, the EMIT can operate only at the higher treble frequencies. Therefore, the Q-woofer must handle a rather wide frequency range. In the Qa system, the crossover between the drivers takes place at 2,500 Hz. In order to have a 10-inch woofer that can function properly at 2,500 Hz. Infinity designed a unit with a phosphor-bronze voice-coil former which is claimed to have lower eddy-current effects than conventional aluminum formers and thus to provide a faster rise time.

In addition, the cone and its butyl-rubber surround are designed so that the outer portions of the cone are progressively decoupled from the voice coil at higher frequencies. As Infinity describes it, the effective woofercone mass therefore varies with frequency, so that good low-frequency response is combined with good mid-range transients.

The nominal impedance of the Infinity Qa is 4 ohms, and it is rated for use with amplifiers

delivering from 15 to 150 watts per channel. The rated frequency response is 42 Hz to  $32,000 \text{ Hz} \pm 3 \text{ dB}$ . Although the Qa is no larger than many "bookshelf" systems, Infinity recommends that it be mounted about 12 inches off the floor and a couple of feet from a wall for best results. A metal pedestal is offered as an optional accessory for just that purpose.

The woofer operates in a sealed cabinet, covered with wood-grain vinyl, that measures  $25 \times 14 \times 12$  inches. The system weighs just under 40 pounds, and the brown cloth grille is removable. A tweeter control on the rear of the cabinet adjusts the high-frequency level over a limited range. Price: Infinity Qa, \$145; pedestals, \$44 per pair. Prices are slightly lower west of the Mississippi.

**B** Laboratory Measurements. We installed the Infinity Qa speakers on the recommended pedestals for listening and measurement purposes. (The speakers can be tipped over backwards when so installed, so caution is advis-

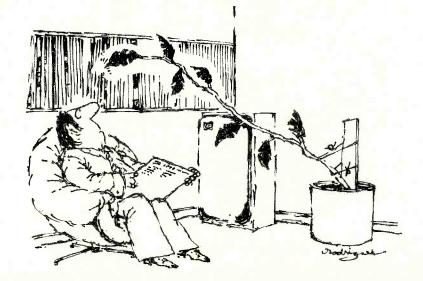
able if there are small children in the home.) In the reverberant field of the room, the high-frequency response followed the shape of the microphone-calibration curve up to its limit of 15,000 Hz. When the close-miked bass-response curve was spliced to the middle- and high-frequency curve, the composite response was within  $\pm 3.5$  dB from 42 to 15,000 Hz. This is impressively close to the Infinity rating, especially in view of our very different test conditions (which measure the sound in a normal listening relationship to the speakers and in a normal room instead of an anechoic chamber).

The high-frequency dispersion was superb. There was only about 2 dB difference between the response curves measured on-axis and 30 degrees off-axis in the 10,000- to 15,000-Hz range. The tweeter level control had a range of about 3 dB, and it began to take effect at about 4,000 Hz.

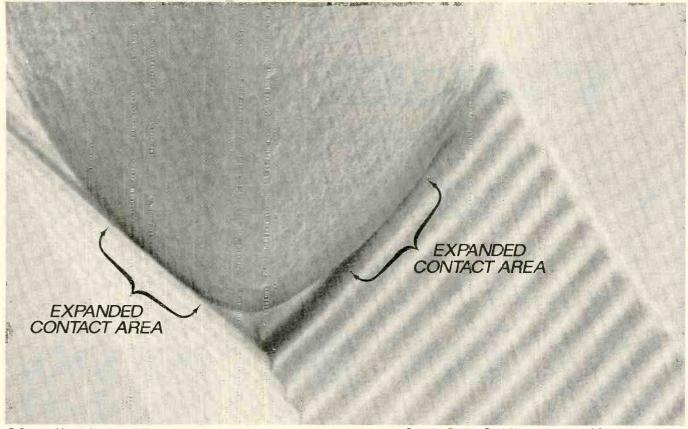
The woofer distortion was measured with a 2.8-volt drive level (equivalent to 1 watt into an 8-ohm load) and also at 8.9 volts (10 watts). Since the speaker is actually a 4-ohm unit, the effective drive levels used in testing were 2 and 20 watts. The distortion at the lower drive level was between 2 and 4 per cent from 100 Hz down to 45 Hz, rising to 10 per cent at 38 Hz. At higher drive levels, the measured distortion rose considerably. This result was explained when we measured the sensitivity ("efficiency") of the speaker. Driven by 2.8 volts of random noise in the octave centered at 1,000 Hz, the Qa produced a 92-dB sound-pressure level (SPL) at a distance of 1 meter from the center of the grille. This corresponds to a fairly loud listening level. The higher drive level produced a very loud 102dB SPL. In practice one would be unlikely to operate this speaker at such levels, and the bass distortion would therefore never become excessive. Extended listening (using a 400-watt amplifier) confirmed this.

The impedance of the Qa was 4 ohms at 20 Hz, 100 Hz, and 20,000 Hz, and it reached a maximum of 15 ohms at 50 Hz and 1,300 Hz. The tone-burst response was excellent at all frequencies, and we noted the rapid start-up of the woofer in the 100-Hz burst.

• Comment. As usually happens, our preliminary listening experience had already given us a good idea of what test results to ex-(Continued on page 54)



## Better stereo records are the result of better playback pick-ups



© Stanton Magnetics, Inc., 1977

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

## Enter the <u>New Professional</u> Calibration Standard, Stanton's 881S



Mike Reese of the famous Mastering Lab in Los Angeles says: "While maintaining the Calibration Standard, the 881S sets new levels for tracking and high frequency response. It's an <u>audible</u> improvement. We use the 881S exclusively for calibration and evaluation in our operation" The recording engineer can only produce a product as good as his ability to analyze it. Such analysis is best accomplished through the use of a playback pick-up. Hence, better records are the result of better playback pick-up. Naturally, a <u>calibrated</u> pick-up is essential. There is an additional dimension to Stanton's new Professional Cal-

There is an additional dimension to Stanton's new Professional Calibration Standard cartridges. They are designed for maximum record protection. This requires a brand new tip shape, the Stereohedron<sup>®</sup>, which was developed for not only better sound characteristics but also the gentlest possible treatment of the record groove. This cartridge possesses a revolutionary new magnet made of an exotic rare earth compound which, because of its enormous power, is far smaller than ordinary magnets.

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

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



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

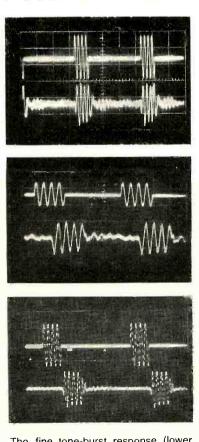


### Infinity Qa Speaker

pect from the Infinity Qa, and we received no surprises. The Qa is an unusually clear, transparent-sounding speaker (our apologies for using that overworked adjective, but it truly applies to the Qa). The high-end response, in particular, was at least the equal of anything else we have heard in regard to smoothness and dispersion. Furthermore, it was so well blended with the woofer output that we felt a sense of listening to a single unified sound source. Our simulated live-vs.-recorded listening test also gave the Qa perfect marks for its upper-mid-range and high-frequency accuracy. We could hear some extra warmth in the lower mid-range or upper bass, but only upon direct comparison to the original "live" sound. Although we did not deliberately abuse the speaker, we did play it very loud, using the full potential of a 200-watt-per-channel amplifier. The speaker never sounded strained, nor was it damaged.

Reading the Infinity brochure on the Qa, we were struck by the accuracy with which it described the speaker's essential sound character. The Infinity Qa has the spaciousness and smoothness claimed for it. It is undoubtedly one of the best loudspeaker values in today's market. One could pay several times as much and not get nearly so accurate a system.

Circle 109 on reader service card



The fine tone-burst response (lower trace) of the Infinity  $Q_a$  at (top to bottom) 100, 2,000 and 7,000 Hz typifies its response throughout its range.

When you begin your full-time career, you know you've got a few years to go before your salary and position are where you want them to be.

As an officer in the Army National Guard, you'll have a part-time job which offers you that right away. And plenty of room for advancement.

If you have a degree from an accredited college, you can get a direct commission as an officer. And if you've had prior commissioned service, you can come in at your previous rank. You can also be commissioned through ROTC, or attend Officer Candidate School. As an officer, you'll be well paid. And you'll be responsible for the lives and actions of other women and men. You'll learn about managing people, money and skills a lot sooner than you will in your civilian job. So why not join the Army National Guard? And

start off as the boss.

Contact your local Army National Guard Recruiter, mail in the coupon, or call toll-free 800-638-7600 (except in Alaska, Hawaii, Puerto Rico and the Virgin Islands). In Maryland call (301) 728-3388.



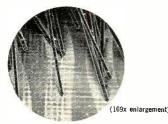
CIRCLE NO. 73 ON READER SERVICE CARD

The only part-time job you can start as the boss.

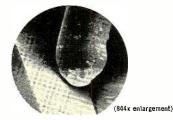
### Take a close look at a better record cleaner. Audio-Technica AT6002



This is an A-T scanning electron microscope photo of the dirt that must be removed if your records are to sound clean. It's dirt that is falling on your records even as you listen.



Our unique carbon fiber brush sweeps each groove literally hundreds of times as the record plays, just *before* the stylus touches the groove. The carbon fiber brush helps conduct static charges away, making groove cleaning easier. And the incredibly small 6 micron diameter reaches deep into the groove for the smallest particles.



Immediately behind the brush, our velvet pad captures and holds dust particles as you play. And moisture released from an inner reservoir helps to dissolve stubborn deposits to prevent static build-up.



This 4-way attack on dirt (brush, pad, liquid, and conductive path to ground) is uniquely effective. For proof, clean a record with any other system. Then "play" it with the AT6002. You'll find dirt removed by the AT6002 that was left behind by other cleaners. Try it today. Just \$9.95 at all Audio-Technica dealers.



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### MUSICAL TRIPS

WELL, you probably missed it. The first Fabulous Babe Rock Cruise is over, and you'd have given your Idi Amin Fan Club T-shirt to have been there, had you but known. Imagine a typical South Pacific singles cruise with a rock-and-roll heart. Instead of shuffleboard on Deck B, there were guitar and drum lessons in the sun, such movies as *Gimme Shelter* on rainy afternoons, five rock bands for moonlit dancing and concerts, fresh salt spray mixed with the invigorating scent of burning herbs, and all the wine you could drink, specially bottled for the occasion.

This floating idyll was launched December 18 by a company called Rocktravel. The trip's distinctive title came from the folks at Fabergé, who powered the ship's propellers with \$110,000 worth of Babe perfume promotion funds. Fifteen days of strummin' and sunnin' ended on January 2 when the boat docked for a final onshore concert in Sydney, Australia. Yes, as well as being Far Out, this trip was Down Under. The Australian extravaganza attracted 1,600 passengers who paid \$515 to \$980 apiece to be serenaded at sea by Aussie rock heavies Skyhooks and Renee Geyer. The venture will undoubtedly spawn similar travel packages. How about sitar lessons from Ravi Shankar on an Amtrak charter to Florida's Disneyworld, or hustling with Donna Summer on a thirty-day bus excursion through the Canadian Rockies?

A musical trip of another sort is provided

by Stephen Spielberg's heavily publicized Close Encounters of the Third Kind, a startling film about earthlings' first contact with an extraterrestrial civilization. Where Star Wars was all good-natured outerspace adventure with a musical score that simply underlined the film's animated comic-book fantasies, Encounters is a serious (though flawed) attempt to see what happens when one human fantasy becomes reality. Spielberg's film demands that its musical score be more than just a decorative frame for the plot; it had to be an integral part of the action. The simple tune that inexplicably haunts all those who have encountered the aliens-from the tot in the Midwest who hammers it out on his toy xylophone to the huge crowd in India that chants it in unison-is not just a "tune" as we know it. It is a message, a specific piece of information which can be deciphered mathematically. When Earth's representatives formally greet the (of course-they got here, didn't they?) vastly superior aliens, all communication takes the form of music, not a new idea to be sure, but, as presented, a very moving one.

JOHN WILLIAMS (a busy man these days—he composed the *Star Wars* soundtrack too) had to deal with some nifty problems in creating the *Encounters* score (Arista AL 9500). The Nerve-Tingling Suspense sequences Spielberg delights in were relatively easy. Williams (Continued on page 60)



### The new Bose<sup>®</sup> Model 501. It shapes the sound to fit your living room and your music.

The new Bose Model 501 Direct/Reflecting® speaker captures the realism of live music by using room-wall reflections to recreate the balance of reflected and direct sound you hear at a live performance.

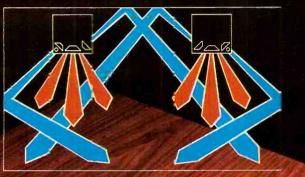
At the same time, the ex-

clusive Bose Direct Energy Control lets you ad ust the radiation pattern of the outward-firing tweeter for the size and shape of your room, and for your music. Broader, for the sweep of a symphony, or tighter, for the intimacy of a vocalist. Two extended-range, 3-inch tweeters deliver crisp, clean highs, while the high-performance 10-inch woofer produces very deep, powerful bass with practically no distortion. And an innovative Dual Frequency Crossover™network lets tweeters and woofer play simultanecusly over more than an octave, for smooth, open micrange.

Hear the new Model 501, the speaker that shapes the sound to **Fit** the way you listen to music, at Bose dealers now.



The Direct Energy Control lets you adjust the radiation pattern of the outward-firing weeter.

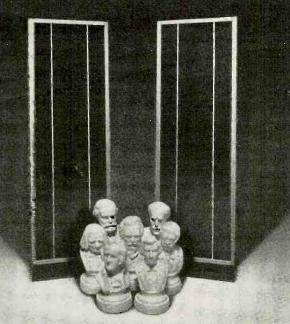


The Model 501 speaker is designed to create a life-like balance of reflected and direct sound.



For a detailed description of the Model 501 and the technolog, behind it, send \$1.00 to Bose Corporation, Dept. PVN, The Mountain, ≑ramingham, Mass. 01701. You w∃ receive a full-color Model 301 brochure, a 12-page owner's manual, and a copy of Dr. Amar Bose's article on "Sound Recorcing and Reproduction," reprinted from Technology Review. Cabinets are walnut-grain vinyl veneer. Patents issued and pending.

### **Well-Matched**



Connoisseurs of fine music, whether it be dassical, rock, or jazz, require a standard of performance from their audio systems that is nothing less than superb.

Magneplanar<sup>®</sup> loudspeakers meet that standard. Tall and sleek (only two inches thin), Magneplanars® have no box to color the sound. An incredibly rugged and lightweight (low mass) diaphragm provides superior definition, transient response, and phase response, while maintaining uniformly smooth frequency response.

Finished in solid oak and painstakingly handcrafted in the U.S.A., Magneplanars® are supplied as carefully measured and mirrorimaged pairs. The MG-I, \$495 a pair. The MG-II (shown above), \$695 a pair. White or black.

The great masters have met their match. Meet yours at one of these selected dealers:

The Sound Shop Nortolk, VA Audio Art Richmond, VA Sound Approach Newport News, VA Sound World Limited Virginia Beach, VA Myer Emco Washington, D.C. Wheeling Sound Wheeling, WV Sound Investments Morgantown, WV HI-Fideilty Center Huntington & Charleston, WV EAST Sound Studio Newark, Wilm & Dover, DE Audio Etc. mington, Gainesville, FL Gainesville, rt. RMS Sound Boca Raton & West Palm Beach, FL Sound Components Coral Gables, FL Fat Julian's Audio Atlanta, GA Sound Studio Schlabury MD Stianta, GA Sound Studio Saliabury, MD DKL Laboratories Silver Spring, MD Wyer Emcs Rockville, MD Soundscape Baltimore, MD Hearing Things Worcester, MA Stereo Emporium Buffalo, NY Audio Breakthroughs Manhasset & Hunlington, NY CENTRAL Paul Heath Audio Ltd. Chicago, IL Victor's Stereo Chicago, IL Stereo Hideaway Carry, IL Gienn Poor's Audio Champaign, IL Hi-Fi Gallery Indianapolis, IN Audiotrend Hunlington, NY Lyric Hi-Fi New York & White Plains, NY Clark Music Syracuse & Albany, NY Audio Den Stony Brook, NY Vickers Audio Chapel Hill, NC Sound Plus Jenkintown, PA Barclay Recording Philadelphia, PA Ovation Audio Philaselphia, PA Ovation Audio Philaselphia, PA Brookshire Music Machine Anderson, Greenville & Greenwood, SC Hi-Fi House TN Sound Concept Johnson City, TN Sound Concept Bristol, VA Huntington, NY Lyric Hi-Fi Indianspolis, IN Audiotrend Evansville, IN The Stereo Shop Cedar Rapids & Davenport, IA Audio Labs, IA David Beatty Stereo Kansas City, KS Custom Sound Wichita, KS Audio Authority Lexington, KY Audio Authority Metairle, LA WEST MAGNEPLANAR' PRODUCTS P.O. BOX 8642, WHITE BEAR LAKE, MINNESOTA 55110

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Absolute Audio Santa Ana. CA Stereo Hi-Fi Center Gardena & Torran-e. CA Hi-Fi-Matic Stereo Culver City. CA Pud's Stereo Albany, CA The Sound Company San Diego. CA Listen Up Denver, CO Bolider Sound Bolider Sound Bolider Sound Monolulu, Hawaii The Stereo Shoppe Interior Systems Las Vegas, NV Sound Ideas Albuquerque, MM Hawthorne Stereo Albuquerque, NM Hawthorne Stereo Portland & Beaverton, OR Day's TV Corvallis, OR Toad Hall Elicene CD Eugene, OR Riverside Sound Medford, OR Medford, OR Winterton's Audio Salt Lake City & Provo, UT Hal's Stereo Spokane, WA Tin Ear Richland, WA Definitive Audio Seattle, WA CANADA CANADA Advance TV & Stereo Minipeg, Manitoba Bay Bioor Radio G & G Electronics Sudbury, Ontario London Stereo Edmonton & Calgary, Alberta Opus Audio Ltd. Montreal, Quebec S.R. Sound Room Ltd. Vancouver, B.C.

### The Pop Beat. . .

is a past master at aurally weaving that staple movie mood, especially when an element of menace is involved. His theme for the shark in Spielberg's first blockbuster, Jaws, for instance, was the invisible monster's most tangible and most terrifying aspect throughout the film's first half. The grotesque mechanical dummy that finally appeared was about as frightening as a rubber chicken.

HE minor-key instrumental and choral bursts Williams created for Encounters are alternately eerie and grandiose, and immensely effective in the context of the plot. The difficulties arose with the screenplay requirement that the extraterrestrials communicate with Earth through music. Williams' task was to provide them with a believable voice, a voice simultaneously alien yet comprehensible. The representatives of Earth, too, required an instrument of communication. The latter appears as an electronic keyboard, but the sound is from an oboe. The most important musical dialogue occurs after the alien mother ship, an enormous mountain of lights and spires which dwarfs everything around it, alights before a crowd of shaken scientists. On the specially devised keyboard, one of their number tentatively taps out the tune that was the aliens' first message. The tune is repeated over and over in varying tempos in what begins to appear a futile attempt to elicit some response from the silent ship. Suddenly there comes from the great glowing mass the slow thunder of what seems the mother of all tubas, repeating the tune note by note, making the earthly instrument seem tinker-toy tiny in comparison. It's hokey but thrilling.

The scene continues as the aliens patiently teach the gathered earthlings their "language," and the musical interchange grows increasingly complex; the simple tune exchanged between the two instruments gradually grows into a multilayered envelope of sound resembling a classical fugue. As with most film scores, this stuff doesn't hold up well on its own, but it enhances the film and will doubtless conjure up delicious lingering memories when heard later.

This fantasy of communicating with alien beings through music isn't as off the wall as you might think. Just last year, real scientists launched a real spaceship from Earth in an attempt to make our presence known in the universe. The rocket's destination was a nonspecific point in another star system. On board was a representative sampling of music from all over the world keyed to a film explaining human civilization. I can't vouch for an alien's reaction to the Jerry Lee Lewis roof-raiser included, but I know several humans who would take that particular segment as a sign of hostile intent.



STEREO REVIEW's contributing editors have been encouraged to take some limited flights of fancy in this issue on subjects musical (see page 65) in honor of our twentieth anniversary. A similar invitation is hereby extended to you. Send me your ideas on possible recordings, improbable groups, unheard of shows, or startling new acts, and we'll run the results in this column. Let yourself go, and may the Force be with you.

## rure l'leasure. he True Sound of Sco

Scott speakers are designed and engineered for listeners who demand the ultimate in true sound reproduction.

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

Unlike many other speakers, Scott speakers neither add nor subtract from the original sound. And unlike so many of today's "fad" speakers, they don't distort the original sound for special effect. Nor do they color the sound for an exaggerated response.

Scott speakers provide pure listening pleasure by accurately reproducing music with qualities equivalent to live performances, and with a degree

of authenticity limited only by the quality of the record, tape or broadcast signal.

> It is this uncommon ability to reproduce sound in a truly natural fashion that has earned Scott

speakers their outstanding reputation and critical acclaim.

Listen for yourself. The true sound of Scott is pure pleasure. And true sound is built into every Scott speaker in every price range, from the Bookshelf Series to the distinguished PRO 100 shown here.

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

### ESCOTT. Warranty Identification Card

Warranty Number: 24026 Model: PR0 100 Speakers (2) Serial Number: 1001374/1001375 Expiration Date: January 1, 1983

Individual Dispersion Control and Frequency

Response Switches. The PRO 100 provides a unique sound dispersion control that allows you to adjust the direction and amour t of sound between the upward-firing anc front-firing drivers. Two additional switches allow you to tailor the high end and midrange fre-quency response of the speaker to best match your room acoustics.



Three individual position switches allow you to tailor response to best match your own listening environment.

he Name to listen to.

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

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First of all, the <u>Auto</u> <u>Program Locate Device</u> another Sharp exclusive and just one function of the "brain"—can skip ahead, or backward, up to 19 songs on a tape. And automatically play just the one you want.

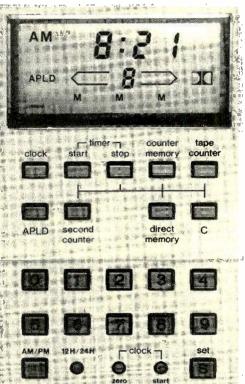
The <u>Counter Memory</u> can find a specific number on the tape counter and stop there or start playback auto-

matically. The <u>Memory Rewind</u> can rewind to any pre-selected point automatically and play it if desired.

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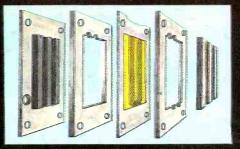
CIRCLE NO. 57 ON READER SERVICE CARD

Most car speakers that are advertised as "true high-fidelity for your car" sound about as convincing as a usedcar salesman's pitch. More often than not, the music comes out sounding as if it were recorded in a closet full of winter clothes. The truth of the matter is that if a manufacturer warts to make car loudspeakers sound as good as the ones you hear in your home, he has to make car loudspeakers as good as the ones you hear in your home. Which means

no tricks. No short cuts. No nonsense. Which is why the new KLH Model 693 DMSC automotive stereo loudspeakers sound about as good as anything you've ever heard anywhere. Maybe better. Consider the components, We use Controlled Acoustic Compliance Woofers with 30-ounce magnets for extended bass response. Hemispherical soft dome midrange drivers (found in only the most expensive speakers). And the most advanced driver found in any loudspeaker system - The Samarium Cobalt Tweeter (an ultra thin Kapton\* diaphragm with "printed" voice coil suspended between the most powerful magnet material known to man - rare earth Samarium Cobalt!). The 693 DMSC can be driven nicely by the

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### The Samarium Cobalt Tweeter



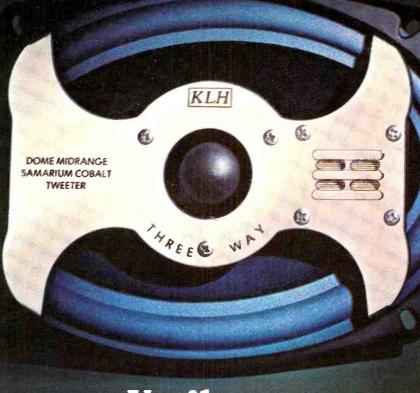
sound of the strings. And when all is said and done, isn't *that* what high fidelity is all about?

For more information on KLH automotive loudspeakers (we also make two-way systems, additional three-way systems, and a totally new concept in automotive sound, The Headliner series), write to KLH Research & Development Corp., University Avenue., Westwood, Mass. 92090.

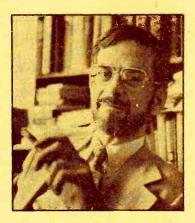


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You've never seen this name on an automotive loudspeaker because there's never been an automotive loudspeaker worthy of this name.







By James Goodfriend Music Editor

WENTY years is a long time in a field as young as that of recorded music. The last twenty-year span has been especially long if we measure it not by simple chronology but by the comparative density of events and accomplishments, for this is the stereo era and new developments are virtually a daily occurrence. To those who first became acquainted with recorded music and playback equipment during this time, the conditions that have prevailed-the high quality of recorded sound, the easy availability of vast quantities of repertoire, the extreme range of choice available to the consumer-must seem to be the invariable norm. I can assure them it is not-even going back, for comparison, only to what I personally remember. I will not bore the reader with the record-collecting reminiscences of an old man of forty-five, but I would like to point out that I, and we, have for the last twenty years been living through a sort of golden age of recorded music.

It is no accident that the founding of STEREO REVIEW (originally called Hi Fi & Music Review), exactly twenty years ago this month, essentially coincided with the beginning of the stereo era. Though there were no stereo records to review in that first issue, excitement about the new medium was evident throughout the magazine. Stereo tapes were discussed, as was the forthcoming showdown between the two-or threeproposed systems of stereo disc recording. A projection was made that the first commercial stereo record releases should be expected in two years, but reality, as it so often does, made the prediction look timid: the first reviews of stereo discs appeared in the magazine before the year was out.

N the last twenty years records have come and records have gone, and the quantity, on both neap and ebb tides, has been enormous. No one any longer remembers all the records. No one any longer remembers even all the high points. As a tug at the memory for our older readers, and as a sort of guide to the riches for the younger ones, we have

asked certain of our staff and contributing editors to select what, in specific areas of the repertoire, seem to them to be the outstanding records of the past twenty years, and to add a brief comment on each one of them. For reasons more of space than anything else, a rather arbitrary figure of eight records was decided upon. To keep us from waxing too sentimental about the past (recent as it may be), however, and to remind both readers and ourselves that we are at least as concerned about the future as we are about the past, we also asked everyone to cast a couple of votes for the best records of the next twenty years-purely hypothetical at this point, of course. And so you will see at the foot of each editor's contribution a little "Two for the Future," suggesting a couple of discs, in fun or in earnest, that might garner accolades similar to the first eight if only someone had the wit to make them. Record companies are invited-please-to copy, of course, but the basic point is that everything hasn't been done yet, not even everything that ought to be done.

E have tried to limit selection to records that were actually recorded within the last twenty years, but we have bent a little for records that were first released within that time, and once even for a record of selections that were first collected on an LP (so far as we can tell) within that time. There comes a point when one just has to say, "Oh the hell with it, put it in." We have also tried to keep the categories themselves relatively discrete, but some records don't categorize easily, and sometimes we've even let people jump lanes. And we have all tried not to balance things out neatly and artificially, but to select on the basis of real and personal value the records that knocked us out and still do. We ask the reader not to take categories and time too seriously but to dwell, rather, on the records themselves. There is ample room for disagreement as to choice, but any score of years that produced the records listed below had a lot going for it. Will we be able to say as much for the next twenty?



□ BARTÓK: Concerto for Orchestra. New York Philharmonic, Pierre Boulez cond. CoLUMBIA M-32132. Boulez's reading, the New York Philharmonic's playing, and Columbia's recording combine to produce a tour de force.

□ BEETHOVEN: Symphony No. 3, in Eflat Major, Op. 55 ("Eroica"). NBC Symphony Orchestra, Arturo Toscanini cond. RCA VICS 1655E (the original mono LM 2387 or import counterpart is recommended). Still the most masterly reading of the Eroica in terms of gripping drama and classic discipline.

□ ELGAR: Symphony No. 2, in E-flat Major, Op. 63. London Philharmonic Orchestra, Sir Adrian Boult cond. ANGEL S-37218. Elgar's impassioned and elegiac masterpièce has found its ideal interpreter and sonic realization.

□ IVES: Symphony No. 4. American Symphony Orchestra, Leopold Stokowski cond. COLUMBIA MS-6775. There may be more accurate renditions, but this "creator's" recording still has all the spirit.

□ MAHLER: Symphony No. 9, in D Major. Columbia Symphony Orchestra, Bruno Walter cond. ODYSSEY Y-30308. Walter and this delectable music were made for each other; the slow movement says it all.

□ SCHOENBERG: Variations for Orchestra, Op. 31; Verklärte Nacht, Op. 4. Berlin Philharmonic Orchestra, Herbert von Karajan cond. DEUTSCHE GRAMMOPHON 2530 627. Karajan makes the formidable variations sound as clean as Mozart, and immensely dramatic in the bargain.

□ SCHUBERT: Symphony No. 9, in C Major ("The Great"). Philadelphia Orchestra, Arturo Toscanini cond. Presently available in RCA collection CRMS 1900. A remarkable restoration of a remarkable perfor-





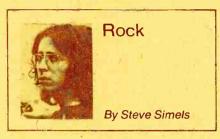
mance (at one time it had been given up as unsalvageable).

□ STRAVINSKY: Le Sacre du Printemps. Columbia Symphony Orchestra, Igor Stravinsky cond. COLUMBIA MS-6319 or M-31830. The Old Master knew his own music better than anyone; this is the best of his three recorded documentations.

### TWO FOR THE FUTURE

□ MOZART: Symphonies Nos. 35, 36, 38, 39, 40, 41. Vienna Philharmonic Orchestra, Carlos Kleiber cond. I'd like all the last six, but if it has to be only one, let it be No. 40, in G Minor.

□ SHOSTAKOVICH: Symphonies Nos. 1-15. Leningrad Philharmonic Orchestra, Maxim Shostakovich cond. Judging from what he accomplished with the Fifth Symphony, the composer's son should tackle the whole cycle.



□ CHUCK BERRY: Chuck Berry's Golden Decade. CHESS 15140. To this day, as Bob Seger put it, all Chuck's children are out there playing his licks—even the Sex Pistols.

□ THE BEACH BOYS: Pet Sounds. WARNER BROS. 2MS-2083. Adolescent romantic traumas raised almost to the level of High Art by Brian Wilson, rock's most sophisticated primitive.

□ **THE BEATLES.** CAPITOL SWBO-101. Rock eclecticism defined; for melodic richness and studio mastery this one remains unsurpassed.

DEREK AND THE DOMINOES: Layla (and Other Love Songs). POLYDOR 3501. Eric Clapton's anguished exorcism of his demon—and the most moving guitar rock of the decade.

**BOB DYLAN:** *Blonde on Blonde*. Co-LUMBIA C2S-841. The Sixties . . . through a glass, darkly.

□ THE ROLLING STONES. LONDON LL 3375. Heavy-metal clatter, amphetamine energy, and the Chicago Blues add up to rockand-roll in what is still the most potent debut album ever made.

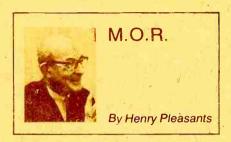
□ THE ROLLING STONES: Exile on Main Street. RolLING STONES COC-2-2900. A night of fear, haunted and brilliant; the Stones still playing the blues, only this time their own.

□ BRUCE SPRINGSTEEN: Born to Run. COLUMBIA PC-33795. The rock album as Homeric epic; stately, impassioned, and altogether grand-Springsteen's best so far.

### TWO FOR THE FUTURE

□ JOHNNY ROTTEN: Johnny Rotten Is Nauseous (Over Lennon and McCartney). The Sex Pistols' volatile lead singer recorded while retching on a pile of his older sister's Beatle albums.

□ YOKO ONO: Retirement (One Performance Only). The noted conceptual artist and shrike performs a long overdue Public Service. On the Sino-Poetica label.



□ **BING CROSBY:** At My Time of Life. UNITED ARTISTS (England) UAS 29956. The old groaner in his early seventies remembering some golden oldies and singing, to my ears, better than at any other time of his life.

□ FRED ASTAIRE: They Can't Take These Away from Me. UNITED ARTISTS (England) UAS 29941. Made, as was the Bing Crosby album above, in London in the summer of 1975, it is the album that persuaded me that Fred was not a dancer who sang, but a singer who danced.

□ FRANK SINATRA: Only the Lonely. CAPITOL SM 1053. Harold Arlen and Johnny Mercer, among others, providing Frank with just the material he needs to show how a sad tale should be told in song.

□ JIM BAILEY. UNITED ARTISTS (England) UAS 5642. The female impersonator sounding more like Peggy Lee, Barbra Streisand, and Judy Garland than they sometimes do themselves.

■ BARBRA STREISAND: Barbra Joan Streisand. COLUMBIA PC 30792. Barbra with gospel-style backings and singing, on John Lennon's Mother, as though out to show Aretha Franklin how it should be done.

CLEO LAINE: Cleo Live at Carnegie

#### Fred Astaire



Hall. RCA LPL1-5015. Memorable if only for Cleo's unaccompanied opening with I Know Where I'm Going and made unforgettable by her way with Michel Legrand's You Must Believe in Spring.

□ WILLIE MAE FORD SMITH: *I Believe I'll Run On*. NASHBORO 7124. Not quite in my category, but I can't resist this, her only album, made when she was sixty-seven. This is the lady to whom Mahalia Jackson once said, "Willie Mae, I'm gonna give up this beauty shop and sing like you." And she did.

□ JACK JONES: All to Yourself. RCA (England) TVL 43002. The most recent album by the man who is, to my ears, completely in a class by himself as a vocalist.

### **TWO FOR THE FUTURE**

□ GLADYS KNIGHT: Gladys Without the *Pips*. Nothing against the Pips, you understand, but Gladys, like malt whisky, should be savored neat.

□ JACK JONES: Jack Jones Sings Harold Arlen. Jack, at last, with material worthy of his gifts.



By Chris Albertson

□ **CIRCLE**: *Circle in Paris*. ECM 1018/19. Anthony Braxton, Chick Corea, Dave Holland, and Barry Altschul—a formidable quartet that blossomed in Europe, where the ground seems to be increasingly fertile.

□ ORNETTE COLEMAN DOUBLE QUAR-TET: Free Jazz. ATLANTIC SD-1364. An offshoot; some thought it a weed, but Coleman's music turned out to be a beautiful wildflower that blossoms still.

□ JOHN COLTRANE QUARTET: Giant Steps. ATLANTIC SD-1311. We had seen the sprout, and here we behold the budding flower that was John Coltrane.





□ JOHN COLTRANE QUARTET: A Love Supreme. IMPULSE S-77. Coltrane in full bloom, but ever giving off new, intoxicating fragrances.

□ MILES DAVIS/GIL EVANS: Sketches of Spain. COLUMBIA CS-8271. In which Davis\_and Evans reached the peak of perfection, fulfilling the promises they made with their "Porgy and Bess" album.

□ MILES DAVIS SEXTET: Kind of Blue. COLUMBIA CS-8163. With John Coltrane and Bill Evans on hand, this album opened an important door to a sound that was as intellectually stimulating as it was soulful.

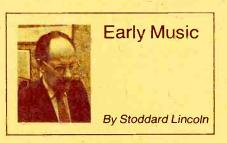
□ KEITH JARRETT: The Köln Concert. ECM 1064/65. His "Solo Concerts—Bremen/Lausanne" was a major achievement in improvisational art, but Jarrett exceeded himself in Köln.

□ SONNY ROLLINS QUARTET: The Bridge. RCA APL1-0859. It is awesome, and even though, alas, it led nowhere, it still stands as a magnificent structure.

#### TWO FOR THE FUTURE

□ MILES DAVIS AND McCOY TYNER: The Davis/Tyner Duets. Davis shakes off the last drops of bitches' brew and unplugs his electronic attachments for a series of duets with pianist McCoy Tyner, recorded with ECM excellence.

□ GEORGE RUSSELL ORCHESTRA: The Music of Mingus, Monk, and Ellington. Jazz classics virtually rewritten by Russell, a brilliant arranger whose innovative style has yet to be fully appreciated by any but a few listeners.



□ THE ART OF COURTLY LOVE. Early Music Consort of London, David Munrow cond. SERAPHIM SIC-6092. The French repertoire from Machaut through the Burgundian School is brought to vivid life through great performances of its subtle settings of great poetry.

CANTI AMOROSI. Nigel Rogers (tenor). DEUTSCHE GRAMMOPHON ARCHIV 2533 305. By far the best recording ever of early seventeenth-century Italian monody by Caccini and his circle.

□ GABRIELI AND HIS CONTEMPORAR-IES. Schola Cantorum Basiliensis, August Wenzinger cond. DEUTSCHE GRAMMOPHON ARCHIV 73154. One of the first—and best records in which ancient instruments are played flawlessly; it also brings out the delightful spaciousness of the Venetian acoustical setup.

■ HANDEL: Alcina. Joan Sutherland, Graziella Sciutti, and Mirella Freni (sopranos); Teresa Berganza (mezzo-soprano); Monica Sinclair (contralto); Luigi Alva (tenor); Ezio Flagello (bass); London Symphony Chorus and Orchestra, Richard Bonynge cond. LON-DON OSA-1361. This relatively early record of a complete Handel opera has a truly great operatic cast singing with musicological guidance; it proves that a Handel opera can stand on its own feet without being crowned a "historical event."

■ MADRIGAL MASTERPIECES. Deller Consort. VANGUARD BACH GUILD BGS 5031 and 5051. One of the most comprehensive collections of Italian and English madrigals and French chansons, it is also superbly performed.

■ MONTEVERDI: Vespro della Beate Vergine (1610). Monteverdi Chorus of Hamburg; Concentus Musicus of Vienna, Jürgen Jürgens cond. TELEFUNKEN SWAT 9501/02-A. Early instruments, a boys' choir, and excellent soloists together produce sumptuous Baroque sonorities that really send this masterpiece sky-high.

□ RAMEAU: Les Indes Galantes. Soloists; Ensemble Vocal Raphaël Passequet; La Grande Écurie et La Chambre du Roy, Jean-Claude Malgoire cond. COLUMBIA M3-32973. A truly remarkable reconstruction of a luscibus work, beautifully sung here to the exotic accompaniment of early instruments.

□ VIVALDI: The Four Seasons. Simon Standage (Baroque violin); English Concert, Trevor Pinnock cond. CRD 1025. This brilliant performance on original instruments at low pitch sheds new light on an old treasure.

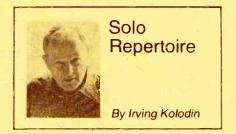
#### TWO FOR THE FUTURE

□ LULLY: Amadis de Gaul. Janet Baker; Robert White; English Concert, Trevor Pinnock cond. A grand opera by the grandest of opera composers needs authenticity, style, expértise---and real singers.

□ BLITHEMAN: Gloria Tibi Trinitas (and other organ works from The Mulliner Book). Helmut Walcha (organ). Marvelously fascinating music—and yet no one has recorded it. (Continued overleaf)

David Munrow





■ **BEETHOVEN:** Sonata in F Minor, Op. 57. Sviatoslav Richter (piano). COLUMBIA ML 272, RCA VICS 1427. A rare concurrence of "live" and recorded efforts by the same performer at the same point in his career (1960), in which the studio effort sweeps forward with the dynamism of the concert hall and the Carnegie Hall performance has all the iron-fisted control of the studio.

□ BEETHOVEN: Variations on a Theme by Diabelli, Op. 120. Rudolf Serkin (piano). CoLUMBIA AML 5246. A concentration, in one towering masterpiece, of the power Serkin spread throughout his recorded repertoire, marshaled to project all the vistas of piano-music-to-come that were imagined by Beethoven.

□ BRITTEN: Suites for Cello, Opp. 72 and 80. Mstislav Rostropovich (cello). LON-DON CS 6617. Unique examples of works created for and recorded by the same extraordinary master; a historic instance of artistic entente.

□ FALLA: Cuatro Piezas Españolas; El Amor Brujo; Three-Cornered Hat (excerpts). Alicia de Larrocha (piano). LONDON



Alicia de Larrocha

CS 6881. An off-beat instance of the musical riches that accrued to the world by reason of the emergence to high rank of a qualified exponent of the Spanish literature.

□ KREISLER FAVORITES. Mischa Elman (violin). VANGUARD SRV 367SD (reissue). Unique evidence of stylistic absorption which enabled one legendary instrumentalist to evoke both the compositional and performing individuality of another.

□ RAVEL: Valses Nobles et Sentimentales (also pieces by Poulenc, Fauré, and Chabrier). Artur Rubinstein (piano). RCA LSC 2751. A short course in the art of producing a master recording: irresistible material combined with an inimitable performer of it; the engineering isn't bad either.

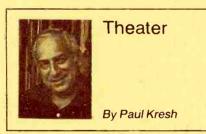
□ SATIE: Piano Pieces. Aldo Ciccolini (piano). ANGEL S-36482. This landmark first release stretched into a six-volume series that gave the persimmon-like fruit of Satie a popularity hitherto restricted to the plums of the repertoire.

□ SCHOENBERG: Piano Music, Opp. 11, 19, 25, 33a, 33b. Maurizio Pollini (piano). DEUTSCHE GRAMMOPHON 2530 531. This venture combines intellectual insight with a seldom-equaled spiritual affinity to make this music more approachable than is commonly the case (even with the best performers).

### TWO FOR THE FUTURE

□ BACH: The Well-Tempered Clavier; The Goldberg Variations; The Partitas. Charles Rosen (piano). To be recorded and released on one digital disc.

□ YSAŸE: Sonatas for Unaccompanied Violin. Mark Kaplan (violin). Kaplan, a young whiz of a fiddler and pupil of Dorothy DeLay, will make his Philadelphia Orchestra debut in April 1978. He deserves to be recorded; so does Ysaÿe—even again.



□ PORGY AND BESS (George and Ira Gershwin-Dubose Heyward). RCA ARL3-2109. Whether it's counted as musical comedy, grand opera, "folk opera," or a hybrid of all three, Porgy is Gershwin's masterpiece, and it has received its finest recording to date with the Houston Grand Opera under John DeMain.

□ WELLES RAISES KANE (Bernard Herrmann). UNICORN UNS 237. The composer of some of the best-crafted original film scores ever devised conducts a cleverly arranged suite of themes from *Citizen Kane* and *The Magnificient Ambersons*, backed by the ingenious music for *The Devil and Daniel Webster*.

□ THE BEATLES: Yellow Submarine. APPLE SW-153. The soundtrack created by the Beatles for the hilarious full-length cartoon radiates zany good cheer and perfectly displays the group's legendary style.

□ THE DECLINE AND FALL OF THE EN-TIRE WORLD AS SEEN THROUGH THE EYES OF COLE PORTER. COLUMBIA SPE-CIAL PRODUCTS CSP COS-2810. Ben Bagley's lighthearted and sparkling "revuesical," made up of unhackneyed Porter songs, was a hit of the 1965 season in New York and holds up sturdily on disc.

□ GYPSY (Jule Styne-Stephen Sondheim). COLUMBIA OS 2017. The hit of the 1958-1959 Broadway season starred Ethel Merman at the height of her powers as the stage mother of stripper Gypsy Rose Lee, and this original-cast album faithfully mirrors her astonishing performance.

□ MABEL MERCER: Midnight at Mabel Mercer's. ATLANTIC 1244. There's never been a cabaret singer with a style more intimate, alluring, or exhilarating, and this re-



Mabel Mercer

cording of almost exactly twenty years ago offers a generous sampling of Mabel's sophisticated repertoire.

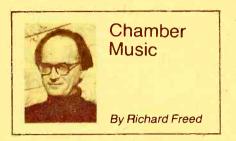
□ ON THE TOWN (Leonard Bernstein-Betty Comden-Adolph Green). COLUMBIA S 31005. Back in the 1960's Bernstein reassembled most of the original cast of his 1944 musical about three saliors on leave in the Big Apple and put together one of the most stimulating and ingratiating musical-comedy albums ever made.

□ WEILL: Berlin Theater Songs. Lotte Lenya. COLUMBIA MG 30087. The widow of Kurt Weill and the supreme interpreter of his bittersweet ballads puts the skills of her husky, haunting voice at the service of the songs that lent so much distinction to the German musical theater in the days before Hitler.

### TWO FOR THE FUTURE

□ THE BROADWAY MUSICAL. Columbia and RCA pool their resources, ransacking the archives, to produce a six-record survey of highlights from American musical comedies of the twentieth century, starting with Victor Herbert and winding up with excerpts from the original-soundtrack octophonic recording of the stage-musical extravaganza version of *Star Wars*, with Andrea McArdle of *Annie* as the Princess. To be released on RCA-COLUMBIA SPECIAL PRODUCTS ARQ SL 2001.

 COME TO THE CABARET. An albummaybe a multiple set-featuring the smoky voices of *all* the nightclub ladies in long skirts who have had us weeping into our champagne down through the years, Greta Keller, Mabel Mercer, Julie London, Lotte Lenya, Edith Piaf, Marlene Dietrich, Lena Horne, Josephine Baker, and Ethel Waters among them.



□ BEETHOVEN: The Five Late Quartets and Grosse Fuge, Opp. 127, 130, 131, 132, 133, 135. Quartetto Italiano. PHILIPS 6707 031. The remarkable Italian ensemble is at its very best in the greatest works written for string quartet, exploring the wonders of their structure with imagination and assurance and yet never overlooking the opportunities for beautiful playing.

DVOŘÁK: String Quartet in G Major, Op. 106. Prague String Quartet. DEUTSCHE GRAMMOPHON 2530 480. "Idiomatic" and yet absolutely unbound by tradition, everything about this performance is aquiver with the freshness of discovery and an eagerness to share it.

□ HAYDN: Six Quartets, Op. 50. Fokyo Quartet. DEUTSCHE GRAMMOPHON 2709 060. In terms of style, precision, spirit, tonal beauty, and overall communicativeness, these six sides add up to one of the most nearly perfect string quartet releases ever.



The Tokyo Quartet K. Harada, Ikeda, Isomura, S. Harada

□ THE STRING QUARTET IN THE U.S.A. Vol. I: Early. Kohon Quartet. Vol. II: 1900-1950. Kohon Quartet. Vol. III: Avant-Garde. Concord Quartet. Vox SVBX-5301, SVBX-5305, and SVBX-5306. An intriguing exploration of material hardly known to most listeners—from a piece attributed to Benjamin Franklin through works of Griffes, Chadwick, Piston, Thomson, Schuman, et al. to recent "classics" by Cage, Crumb, Druckman, and their contemporaries. With the single exception of the Kohon's deadly treatment of Gershwin's *Lullaby*, all the performances are first-rate.

■ MOZART: The Last Ten String Quartets (K. 387, 421, 428, 458, 464, 465, 499, 589, 590). Amadeus Quartet. DEUTSCHE GRAMMOPHON 2720 055. Overall, no other foursome has so successfully digested and projected all ten of these marvelous works, and no other single achievement quite so pointedly displays all the Amadeus' characteristic elegance, grace, and authority.

□ ROCHBERG: String Quartet No. 3. Concord Quartet. NONESUCH H-71283. Perhaps the most fascinating string quartet (more or less á *la* Mahler) of the last thirty years, written for the performers who present it with such luminous conviction here.

□ SCHUBERT: Complete String Quartets. Melos Quartet of Stuttgart. DEUTSCHE GRAMMOPHON 2740 123. Benefiting from the latest scholarly research as well as fine sound, the Stuttgarters are well "inside" this material, with some fresh but by no means idiosyncratic ideas about it.

■ SHOSTAKOVICH: String Quartets Nos. 1-11, Opp. 49, 68, 73, 83, 92, 102, 108, 110, 117, 118, 122. Borodin Quartet. SERAPHIM SIC-6034 and SIC-6035. With well nigh definitive performances, good sound, exceptionally thorough documentation, and a most attractive price, this release (produced before Shostakovich composed the last of his quartets) has at least the potential for making listeners unacquainted with Shostakovich's chamber music aware of his achievements in that realm.

#### TWO FOR THE FUTURE

□ SHOSTAKOVICH: Piano Quintet, Op. 57. Emanuel Ax (piano); Fitzwilliam Quartet. The great recording of this beautiful, middleperiod work, surely the outstanding piano quintet of this century, still remains to be made; this could be it.

DOHNÁNYI: Serenade in C Major, Op. 10. Arve Tellefsen (violin); Bengt Andersson (viola); Frans Helmerson (cello). It is shocking that there is no stereo version of what seems to be the last in the line of distinguished string trios begun with Mozart's K. 563 Divertimento. Stern, Zukerman, and Rose would surely do a fine job with it, but it was actually my enjoyment of other recordings by these young Scandinavians that suggested the project to me.

### Balladeers

By James Goodfriend

□ JUDY COLLINS: In My Life. ELEKTRA EKS 7320. Collins at her best in some of the best songs of the Sixties and some of the best arrangements—by Josh Rifkin. □ JOAN BAEZ: In Concert. VANGUARD VRS 9112. The high, sweet voice, natural but beautiful, can still send shivers down my spine with Babe, I'm Gonna Leave You, or Geordie, or Pretty Boy Floyd.

□ THEODORE BIKEL: Jewish Folk Songs. ELEKTRA 7141. For all his linguistic and interpretive talents, Bikel became more affecting the closer he got to home, and you don't have to be Jewish to love this album.

RANDY NEWMAN. Good Old Boys. WARNER BROS. MS 2193. The great American art-song writer of our time objectively but artistically expresses the thoughts of certain Southern types.



Randy Newman

□ ROBIN HALL AND JIMMIE MACGRE-GOR: Two Heids Are Better Than Yin! MONITOR MF 365. This modest record of Scottish (ex. a Glasgow Street Song Medley) and Irish (ex. Brendan Behan's The Ould Triangle) songs continues to charm.

EWAN MACCOLL AND PEGGY SEE-GER. The Long Harvest. Argo ZDA 66/75. Traditional ballads and variants thereof, the originals, the source, and, in these voices, the true sound of the folk.

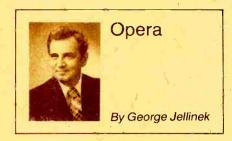
□ HARRY NILSSON: Nilsson Sings Newman. RCA LSP 4289. One of the classic pop/art records of our time; brilliant songs, brilliantly sung.

□ THE WEAVERS: Reunion at Carnegie Hall, 1963. VANGUARD VRS 9130. The occasion produced some pure nostalgia, but also some great examples of what the folk-song movement was all about.

### TWO FOR THE FUTURE

□ JONATHAN AND LEIGH: Back Together Again. A duo that made an unprepossessing but unforgettable first record ("Third and Main," Vanguard 7-9257), then split and hasn't been heard from since, comes back together to make another unprepossessing but unforgettable record that will be around a bit longer.

□ ARLO GUTHRIE, STEVE GOODMAN, HOYT AXTON: *Trios*. They did it in concert, they did it on television, why don't they do it in a recording studio?



□ BEETHOVEN: Fidelio. Christa Ludwig (mezzo-soprano); Jon Vickers (tenor); Walter Berry (baritone); Gottlob Frick (bass); Otto Klemperer cond. ANGEL S-3625. This is Klemperer's best operatic recording; it honors the nobility of the music without undue heaviness, and it draws inspired performances from the singers.

□ BERLIOZ: Les Troyens. Berit Lindholm (soprano); Josephine Veasey (mezzosoprano); Jon Vickers (tenor); Roger Soyer (bass); Colin Davis cond. PHILIPS 6709 002. There are minor vocal flaws here, but they are dwarfed by the totality of the achievement: a monumental opera its composer never saw mounted, executed with dedication and perpetuated with luster.

□ GLUCK: Orfeo ed Euridice. Anna Moffo and Judith Raskin (sopranos); Shirley Verrett (mezzo-soprano); Renato Fasano cond. RCA LSC 6169. An excellent cast, immaculate orchestral playing, and an admirable overall production keep this recorded performance of Gluck's opera ahead of its several competitors.

□ HUMPERDINCK: Hansel und Gretel. Anna Moffo and Helen Donath (sopranos); Dietrich Fischer-Dieskau (baritone); Kurt Eichhorn cond. RCA ARL2-0637. A children's opera that is too good for children, lovingly conducted and performed by a cast the like of which is simply never lavished on this work in stage performances.

D. PUCCINI: Turandot. Joan Sutherland and Montserrat Caballé (sopranos); Luciano Pavarotti (tenor); Nicolai Ghiaurov (bass); Zubin Mehta cond. LONDON OSA 13108. An excitingly conducted and vocally resplendent performance as well as a new and meaningful departure for Joan Sutherland.

□ **R. STRAUSS:** *Der Rosenkavalier*. Régine Crespin and Helen Donath (sopranos); Yvonne Minton (mezzo-soprano); Manfred Jungwirth (bass); Sir Georg Solti cond. LON-DON OSA 1435. Excellent casting, a Viennese ambiance, radiant singing, and opulent playing characterize a truly exceptional performance.

□ VERDI: Falstaff. Mirella Freni and Ilva Ligabue (sopranos); Geraint Evans and Robert Merrill (baritones); Alfredo Kraus (tenor); Sir Georg Solti cond. LONDON OSA 1395. Peak vocal performances from a stellar cast, virtuoso conducting, and rich sound blend into a fine Falstaff.

□ WAGNER: Götterdämmerung. Birgit Nilsson (soprano); Christa Ludwig (mezzo-



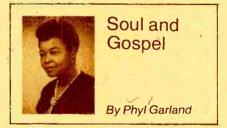
Montserrat Caballé

soprano); Wolfgang Windgassen (tenor); Dietrich Fischer-Dieskau (baritone); Gottlob Frick (bass); Sir Georg Solti cond. LONDON OSA 1604. This is the best-realized recording in London's triumphant *Ring* cycle: a summit meeting of leading Wagnerians.

### TWO FOR THE FUTURE

MOZART: Don Giovanni. Nicolai Ghiaurov (Don Giovanni); José van Dam (Leporello); Margaret Price (Donna Anna); Kiri Te Kanawa (Donna Elvira); Mirella Freni (Zerlina); Tom Krause (Masetto); Kurt Moll (Commendatore). Carlos Kleiber or Carlo Maria Giulini cond. A great opera still in search of the perfect recording. This could. be it.

□ VERDI: Otello. Placido Domingo (Otello); Mirella Freni (Desdemona); Horst Laubenthal or Ryland Davies (Cassio); Sherrill Milnes or Piero Cappuccilli (Iago); Sir Georg Solti or Carlo Maria Giulini cond. Same comment as above.



□ **RAY CHARLES:** *In Person.* ATLANTIC 8039. Recorded live in Atlanta in 1959, this album features classic renditions of *What'd I* Say and Drown in My Own Tears by the artist most responsible for broadening the scope and appeal of rhythm and blues.

□ ARETHA FRANKLIN: I Never Loved a Man the Way I Love You. ATLANTIC SD 8139. Recorded in 1967 and featuring such gems as Dr. Feelgood, Respect, and Don't Let Me Lose This Dream, this album marked Aretha's emergence as a major influence on modern popular music, setting the tone for the soul explosion of the Sixties.

□ MARVIN GAYE: What's Going On. TAMLA TS310. Issued in 1971, this is the finest concept album conceived in the soulstream; it is remarkable for the consistently high level of music and lyrics and for Gaye's impassioned performance.

□ THE EDWIN HAWKINS SINGERS: Let Us Go into the House of the Lord. PAVIL-LION BPS-10001. Dating from the late Sixties, this set shimmers with the youthful vibrance that enabled it to fuse gospel successfully with pop-soul sound; song standouts are Oh Happy Day, I'm Going Through, and I Heard the Voice of Jesus.

■ MAHALIA JACKSON: The World's Greatest Gospel Singer. COLUMBIA CS 8759. She was just what the title says, and this album, marking her debut on a major label, represents her art in all its pure religious fervor.

□ B. B. KING: Live at the Regal. ABC-PARAMOUNT ABC-509. Issued in 1964, this is the finest recorded example of the King of Urban Blues in live performance (shortly before he crossed over into more popular territory), replete with spicy audience response at the old entertainment emporium on Chicago's South Side.

□ NINA SIMONE: It is Finished. RCA APL1-0241. Though she is seldom heard from these days, Nina Simone represents all the essential elements of black soul music plus powerful social commentary. This 1974 album, recorded live in Africa, went almost unnoticed, but it stands out as one of her finest.

□ STEVIE WONDER: Talking Book. TAM-LA T319L. The only competition for this set, which introduced You Are the Sunshine of My Life, You and I, Superstition, and You've Got It Bad Girl, would be Wonder's own equally superb "Innervisions," on TAMLA T326L.

### TWO FOR THE FUTURE

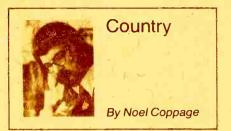
□ STEVIE WONDER: The Next Album. I'd like it—providing it is everything that "Songs in the Key of Life" was intended to be but was not. It might well be built around a concept, possibly tracing his own musical development and carrying it to the higher levels it is eventually bound to reach.

□ FOUR WOMEN: Aretha Franklin, Nina Simone, Shirley Caesar, and Esther Phil-

B. B. King



*lips*. Though Nina introduced the idea years ago in a song of this title, I can think of nothing more exciting than an album that would combine the blues, jazz, soul, and gospel talents of these four artists in a single, noholds-barred collaboration. More than likely they'd get in each other's way, but it would certainly be different from anything heard to date.



□ LESTER FLATT AND MAC WISEMAN: Lester 'n' Mac. RCA LSP-4547. Should really be called Lester 'n' Mac 'n' Uncle Josh, as Mr. Graves' dobro is a crucial third voice, and you'll seldom hear three personalities and some good songs so well matched.

□ LEFTY FRIZZELL: Lefty Frizzell Sings the Songs of Jimmie Rodgers. COLUMBIA C 32249. Lefty sang them better than anyone but Jimmie himself, and Art Satherley and Don Law fitted him with a neat little ensemble for this one.

□ **TOM T. HALL:** *In Search of a Song.* MERCURY 61350. This is the one that introduced Clayton Delaney (posthumously) and Tom T. Hall's (alive and kicking) enigmatic insight to a lot of folks.

□ WAYLON JENNINGS: This Time. RCA APL1-0539. Waylon has one of the remarkable voices of our time, and here, for once, the production is consistently good.

□ BILL MONROE AND HIS BLUE GRASS BOYS: Sixteen All-Time Greatest Hits. COLUMBIA CS 1065. From sessions in the Forties (first collected here), this is the definitive bluegrass album with the Boys including Lester Flatt, Earl Scruggs, Mac Wiseman, Chubby Wise, and Stringbean Akeman.

GINERAL SON: Red Headed Stranger. COLUMBIA KC 33482. A story album, à







Tom T. Hall

mood album, an album not quite like any other—and the story I heard was that Columbia executives were afraid to release it until Waylon Jennings (of RCA) told them how good it was.

□ NITTY GRITTY DIRT BAND (AND OTH-ERS): Will the Circle Be Unbroken. UNIT-ED ARTISTS UAS 9801. A three-disc set full of marvelous stuff by the likes of Doc Watson, Roy Acuff, Maybelle Carter, and other luminaries.

DOLLY PARTON: Jolene: RCA APL1-0473. Her zenith, so far, both as a singer and as a songwriter.

#### TWO FOR THE FUTURE

□ WAYLON JENNINGS: Waylon Sings Mickey Newbury. Frisco Depot on Waylon's "Ladies Love Outlaws" album suggests what an electrifying combination this could be. It would also insure Jennings of enough truly good songs to fill an entire album, which is the kind of insurance a few other albums indicate he could use.

CONNIE SMITH: Connie Turns Earthy. Maybe she could do a whole string of cheatin' songs picked out by Loretta Lynn. Connie has one of the finest voices in the land (and it's basically an earthy one, or at least a sexy one), but she's had, for years, such a fixation on religion that her albums don't tread the interesting ground.



□ ELLY AMELING: Ein Liederabend. Dalton Baldwin (piano). ELECTROLA C063-02 375. One of today's finest lieder singers performs (in four languages) favorites from her repertoire, ranging from Scarlatti to Stravinsky and including two' of Erik Satie's cabaret songs. □ BRAHMS: Deutsche Volkslieder. Elisabeth Schwarzkopf (soprano); Dietrich Fischer-Dieskau (baritone); Gerald Moore (piano). ANGEL-B-3675. The two most famous members of the post-war generation of German singers teamed to perform fortytwo folk-song settings, alternating solos and joining in duets. The most distinguished accompanist of our time is their collaborator throughout.

■ MONTSERRAT CABALLÉ: Music of Spain. Orquesta Sinfónica de Barcelona, Eugenio Marco cond. LONDON OS 26435. A leading operatic soprano lavishes her sumptuous voice and a great deal of affection on a group of showpieces from the popular zarzuela repertoire.

□ VICTORIA DE LOS ANGELES, ALICIA DE LARROCHA: The Concert at Hunter College. ANGEL S-36896. A unique collaboration of two of Spain's most distinguished musicians produced, in concert performance, definitive interpretations of songs by Granados, Falla, and others.

□ GIUSEPPE DI STEFANO: Melodie Celebri. Orchestra, G. M. Guarino cond. AN-GEL S-35837. A dozen of the most beautiful Neapolitan songs are given idiomatic performances here by the possessor of one of the most beautiful tenor voices Italy has produced in this century.

□ DURUFLÉ: Requiem. Hélène Bouvier (mezzo-soprano); Xavier Depraz (bass); Marie-Madeleine Duruflé-Chevalier (organ); Philippe Caillard and Stéphane Caillat Chorales, Orchestre des Concerts Lamoureux, Maurice Duruflé cond. EPIC BC 1256. The twentieth century's answer to the Fauré Requiem—harder, less sentimental, but just as beautiful—in a performance that is, at least for now, unmatchable.

□ MAHLER: Songs—Album 2. Christa Ludwig (mezzo-soprano); Gerald Moore (piano). SERAPHIM S-60070. Christa Ludwig's musical intelligence and ample interpretive gifts are beautifully displayed in a dozen Mahler songs; a wonderful match of artist and repertoire.

□ **R. STRAUSS:** *Four Last Songs*. Gundula Janowitz (soprano); Berlin Philharmonic, Herbert von Karajan cond. DEUTSCHE GRAMMOPHON 2530 368. The pure, almost instrumental quality of Janowitz's voice and her unmanneted interpretations suit Strauss' last vocal works perfectly.

### TWO FOR THE FUTURE

□ RENATA SCOTTO: Favorite Songs by Francesco Paolo Tosti. Few Italian opera singers are such skilled recitalists as Miss Scotto. I once heard her sing Tosti's 'A Vucchella so beautifully that I have longed to hear her perform more of this composer's work.

□ RÉGINE CRESPIN: Cabaret Songs. Mme. Crespin's joie de vivre has made her forays into operetta so successful that I wonder if she might not go one step further in the direction of light music.

### **Concerted Music**

By James Goodfriend

□ BRAHMS: Piano Concerto No. 2, in Bflat Major. Emil Gilels (piano); Chicago Symphony Orchestra, Fritz Reiner cond. RCA VICS-1026. I've compared it with all recordings since, and, though the competition is sometimes close, they always lose.

□ HINDEMITH: Die Sieben Kammermusiken: Op. 24, No. 1; Op. 36, Nos. 1-4; Op. 46, Nos. 1 and 2. Soloists; Concerto Amsterdam. TELEFUNKEN 36.35008. Hindemith's "Brandenburg Concertos" are among the real treasures of twentieth-century music, and they have rarely, if ever, been better performed and recorded than here.

□ MOZART: Piano Concertos Nos. 14-19 (K. 449, 450, 451, 453, 456, and 459). Peter Serkin (piano); English Chamber Orchestra, Alexander Schneider cond. RCA ARL3-0732. Schneider's warmth and Serkin's "coolth" strike magic from these less than overplayed Mozart masterpieces.

■ MOZART: Sinfonia Concertante in Eflat Major (K. 364); Exsultate Jubilate (K. 165). Rafael Druian (violin); Abraham Skernick (viola); Judith Raskin (soprano, in Exsultate); Cleveland Orchestra, George Szell cond. CoLUMBIA MS-6625. All in all, this was probably Szell's best record, with elegant playing (and singing) and simply magnificent tearnwork.

□ POULENC: Concerto in G Minor for Organ, Strings, and Timpani; Gloria in G Major. Maurice Duruflé (organ); French National Radio Orchestra and Chorus, George Prêtre cond. ANGEL S-35953. The best and most representative record of the serious side of a great tragicomic composer.

□ RACHMANINOFF: Piano Concerto No. 3, in D Minor, Op. 30. Yevgeny Mogilevsky (piano); Moscow Philharmonic Symphony Orchestra, Kiril Kondrashin cond. MELO-DIYA/ANGEL S-40226. Pianistically and musically the most satisfying Rachmaninoff Third on record.

Emil Gilels



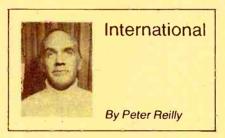
□ RAVEL: Piano Concerto in G Major. RACHMANINOFF: Piano Concerto No. 4, in G Minor, Op. 40. Arturo Benedetti Michelangeli (piano); Philharmonia Orchestra, Ettore Gracis cond. ANGEL S-35567. Primarily for the Ravel: one of the pianistic magicians of our time in a performance that almost defies comparison.

□ RODRIGO: Concierto de Aranjuez; Fantasía para un Gentilhombre. Narciso Yepes (guitar); Orquesta Nacional de España, Ataulfo Argenta cond. LONDON STS-15199. The original recording, and, for me, still the best, of the Concierto, here coupled with its companion piece.

#### TWO FOR THE FUTURE

□ NYSTROEM: Piano Concerto. Tedd Joselson (piano); Boston Symphony Orchestra, Ulf Bjorlin cond. An outstanding piano concerto of this century, in the Prokofiev tradition and all but unknown on this side of the Atlantic, could get a devastating performance from these forces.

□ CHAUSSON: Concert for Violin, Piano, and String Quartet. Itzhak Perlman (violin); Martha Argerich (piano); Alban Berg Quartet. A lush Romantic masterpiece will get its due only from a group of the lushest, most romantic performers.



□ ROBERTO CARLOS: In Portuguese. CAYTRONICS CYS 1366. The most exportable representative of the fertile world of Brazilian popular music, Carlos sings in his native Portuguese on this album, which includes several of his best songs.

□ MARLENE DIETRICH: Marlene. CAPI-TOL ST-10397. The legend herself, proving why it's all true in a collection of songs sung in German.

□ **GREECE TODAY.** PHILIPS PHS 600-094. There are eleven songs and eight singers on this stereo disc compiled from Greek monophonic records, and not one of them is less than a winner.

□ NATI MISTRAL: Transcendencia Universal y Madrileña de Nati Mistral. ALHAM-BRA C7004. The Spanish singing actress Nati Mistral is the Maria Callas of the canción, and this album gives a good idea of her musical and emotional range.

□ EDITH PIAF: Olympia Recital, 1961. PATHÉ (Peters International) CO62 15304. Piaf's appearances at the Olympia in Paris were close to state occasions, and this sample of the greatest actress-singer of her time, alternately exalting and wringing her listeners dry, was a classic recording even upon first release.

CUCO SÁNCHEZ: Guitarras A Media Noche. CAYTRONICS CYS 1071. The Mexican singer-songwriter Cuco Sánchez is pre-



Edith Piaf

sented at his best in this group of mostly sad songs performed in his very emotional manner with guitar and harp accompaniment.

□ ELISABETH SCHWARZKOPF: Sings Operetta. ANGEL S-35696. The most ravishing beauty of the operatic stage—vocally and visually—singing bits of Viennese fluff so definitively (her magical soaring in The Nuns' Chorus is absolutely unforgettable, her languid sexiness in Im Chambre Separée palm-moistening) that they need never be recorded again.

□ THE UMBRELLAS OF CHERBOURG. PHILIPS 616. Michel Legrand's score for Jacques Demy's operetta-film remains his finest achievement, music of such springlike tenderness and sweetness that even without Catherine Deneuve's drop-dead beauty, I still get a gloriously queasy feeling whenever I hear the main theme.

### TWO FOR THE FUTURE

□ MONT'SERRAT CABALLÉ: Caballé Sings Ernesto Lecuona. Lecuona's enchanting music has always gotten something of a brush-off from American recording companies, and I can't think of anything I'd enjoy more than hearing the luscious Caballé voice wrapped around such bonbons as Maria Ia O or Siboney accompanied by a full orchestra with, perhaps, Frühbeck de Burgos or Bernstein conducting—but I'd even settle for piano accompaniment (Jorge Bolet, of course).

□ GISELA MAY: Gems from the Greta Keller Songbook. I would ask the extremely gifted Miss May to put aside for once the rather grim repertoire she specializes in and record a few dozen of the songs of Gershwin, Porter, Coward, and Rodgers and Hart that formed the core of the large repertoire of the late, great Viennese cabaret singer Greta Keller. T could be said that I was close to STEREO REVIEW (originally *HiFi & Music Review*)—at least physically—from the very beginning. The cubbyhole wherein I labored as technical editor of *Popular Electronics* was only about 100 feet or so down the hall from the office of the new hi-fi magazine's publisher, and I had been hired for *PE* by Perry Ferrell, the man who was to become STEREO REVIEW's first Editor.

In 1958 the young hi-fi industry was struggling to find its way. There was no "low-end" equipment market (or even any receivers!) at the time. If you wanted to hear your music through a speaker with a diameter greater than 5 inches, you probably bought a console made by one or another of the major TV-set manufacturers. But if you were among the lonely few self-acknowledged audiophiles in early 1958, you were most likely losing sleep over the big question of the moment: whether to convert to stereo-and, if so, to which format. The stereo-tape controversy (in-line as opposed to staggered heads) was being resolved in favor of the inline head gaps we have today (all stereo tapes were two-track, otherwise known as half-track), but the proper format for stereo discs was still being vigorously debated.

An all-about-stereo article in the February 1958 issue of the new magazine explained the stereo-perception process, told about the available tape machines (open-reel only, of course), and predicted the commercial appearance of stereo discs and—ultimately even stereo FM. And it was only four months later that an article in the June 1958 issue informed eager stereophiles that at least nine independent record companies were known to be producing stereo discs, and that—wonder of wonders—they were all being cut "according to the same method."

OR non-oldtimers, that "same method" comment requires a little clarification. In early 1958 there were at least three stereo-disc techniques being proposed. The Minter system employed a subcarrier for the stereo information and operated in principle not unlike today's CD-4 quad system. The other two stereo-disc systems being promoted were more conventional: the London system used the separate vertical and lateral undulations of the record-groove wall to embody the two channels. And the Westrex system used very much the same approach except they tilted it a little: each groove wall carried the modulation at an angle of 45 degrees to the record surface. It soon became evident that, all other things being equal, the Westrex system was easier both to cut records with and to design playback cartridges for, and it therefore won out in the end.

Earlier that same year, Shure Brothers had announced a new tape head that "doubles the capacity and playing time of all stereo tapes." What was being referred to was of course the first four-track stereo head, a development touted as one that would "save the tape stereo market." Already a confirmed audiophile, I was one of those who wanted stereo saved. I had enough mono equipment lying around to interconnect it for stereo, and I already owned a copy of the very first commercial stereo disc, Audio Fidelity's "Dukes of Dixieland." There was one thing lacking, however: I was I REMEMBER MONO AN AUDIOBIOGRAPHY By Larry Klein Technical Director

having trouble getting a stereo cartridge. It was at about this time that *Popular Electronics* ran a construction article by an Electro-Voice engineer that showed how a stereo cartridge could be built (!) from two of their mono ceramic models. I tried it in a stereomodified tone arm and it worked—but not as well as the readymade E-V stereo cartridge that appeared shortly thereafter.

STEREO REVIEW'S HI-FI Directory for 1958 (put together in mid-1957) listed no stereo record-playing equipment or amplifiers those who had stereo-tape equipment played it through a pair of mono setups wired together. Incidentally, the first Japanese hi-fi product appeared in the U.S. at just about that time: a \$25, 8-inch, full-range driver made by Panasonic. It had fine performance for the day, achieved partly by using a novel phase-correcting globe mounted at the speaker-cone apex. This raw speaker was the only Japanese import to be seen or heard for many years, although English, German, Scandinavian, and Dutch products were everywhere.

The real stereo breakthrough came in late 1958, and the 1959 *Hi-Fi Directory* listed about thirty models of stereo preamps, power amps, and integrated amplifiers. These

In 1958, Technical Director Klein could still be persuaded to make occasional attache-kit service calls.



nevertheless still accounted for well under half of the total listings. Of the twenty or so cartridges listed, about half were stereo, and these were equally divided between ceramic and magnetic types. A number of stereo adapters were also available; they provided a master volume control and the switching facilities needed to combine two mono systems into one clumsy stereo system.

Several tuners labeled AM-FM stereo were also available, despite the fact that there were no stereo FM broadcasts. These tuners were stereo in the sense that they had independently tuned AM and FM sections whose outputs were available separately and simultaneously. An AM and an FM station would occasionally broadcast stereo material with one channel mostly on AM and the other mostly on FM. (It had to be a "mostly" arrangement simply to prevent AM- or FM-only listeners from losing half the audio material). But even with the limited separation provided by AM-FM stereo, I remember how thrilling it sounded-particularly when listened to through headphones. (Incidentally, there were no commercial stereo headphones either: I had to rewire a pair of military-surplus mono phones that had reasonable fidelity.)

N the 1959 *Hi-Fi Directory* there were about as many separate tuners listed as there were "tuner-amplifiers" (the term "receiver" had not yet been applied to the combination). The transistor began to show up in hi-fi equipment about this time—and audiophiles incautious enough to buy solid-state units perhaps deserved exactly what they got: low sensitivity and front-end overload in tuners; overload, crossover distortion, and repeated failure in amplifiers. The day of "transistor sound" was upon us.

It is also perhaps worth noting that 1958 and 1959 were years in which the separate tone arm and turntable were *de rigueur* for the self-respecting audiophile. According to my fast count in the 1959 *Hi-Fi Directory*, there were about twenty-five separate tone arms available (one of them a straight-line radial tracker) and perhaps forty (!) different separate turntables, a few with electronic drives. There were about as many models of changers (under twenty) as there were integrated non-automatic record players.

As a young bachelor with an active social life, I was somewhat upset by having to change records manually every 15 or 20 minutes or so, for it frequently interrupted in the evenings, at least—one of my other major entertainments. However, a militarysurplus Microswitch installed as a shutoff on the turntable and activated by the tone arm solved the problem: the 3 to 6 grams of tracking force employed (not unusual then) made it easy for the arm to throw a Microswitch as it traveled the run-out groove.

Somewhat later I installed the same switch on my Concertone 1401 tape recorder (would you believe it lacked an end-oftape shutoff?) and wrote about it for *Electronics Illustrated*. The same Concertone machine served as the guinea pig for a "Convert to Stereo" article I wrote for the 1958 edition of the *Hi-Fi* Yearbook. It showed how to mount and connect an external stereo tape-head assembly (with guides) and contained this interesting comment: "Although my monophonic system always seemed satisfactory, the sound had now taken on a different aspect. New clarity and body were immediately apparent, but even more important was a feeling of dimension. The orchestral instruments seemed to be located along the side of the room where the speakers were."

As I recall, my feelings about stereo at the time were a little mixed. On the one hand, it was clear that it was the coming thing, but on the other, program material was severely limited and expensive-and in many cases the stereo playback equipment was not up to the quality of existing mono units. And it wasn't only a matter of additional speakers and amplifiers. Suddenly some expensive tone arms and turntables couldn't make it in stereo. The tone arms were not wired for stereo cartridges (although some of them could be converted), and in some cases the low-frequency resonances of the arms were moved up into the audible area because the arms were too light for use with the stiffer stylus assemblies of the stereo cartridges.

Another thing that took a lot of us by surprise was the rumble heard during stereodisc playback. I, like many others, first thought that the problem was in the stereodisc cutters, but it turned out that the designers of even some of the very fine turntables had ignored rumble arising from vertically oriented vibration. This was okay in mono days, because mono phono cartridges respond only to side-to-side groove modulation. The stereo-disc signal, however, appears as a combined lateral-vertical modulation, and the stereo cartridge responded to and delivered vertical rumble as though it were part of the signal.

HE February 1960 issue of *HiFi Review*, with little or no fanfare, added the word "stereo" to the magazine's title (the word "music" had been dropped in December to make room for it.) This overt acknowledgment that stereo was indeed here to stay was in no sense premature. Stereo receivers were then becoming available, integrated stereo amplifiers were proliferating, and tape recorders were appearing with four-track stereo heads. Most of the recorders also had the ability to play the older two- (half-) track stereo tapes to ease the stereophile's conversion problem.

In the March 1960 issue, the complex stereo FM issue was discussed. It seemed very much up in the air (no pun), with the conflicting forces totally at odds as usual. The villains were those commercial forces who were using part of the FM channel of various stations to broadcast background (or "storecast") music. It seems that the proposed multiplex adapters would permit these programs to be received free—obviously an impossible situation. In addition, many of the FM stations of the day were barely making ends meet, and the removal of the storecast revenues could edge them over into the red.

In January 1961, *HiFi/Stereo Review* published a how-to-buy article on FM tuners but still no stereo. In the same issue, an article on transistor hi-fi took a careful stance. Perhaps it was the influence of a new figure (Furman Hebb) in the editor's chair, but the attitude was one of watchful waiting rather than the gushing enthusiasm for the new de-

vices that was sweeping over much of the now rapidly expanding industry. On April 20, 1961, the FCC finally gave

On April 20, 1961, the FCC tinally gave the nod to a system of stereo FM broadcasting. It turned out to be the Zenith/GE system, one that had, oddly enough, been scarcely mentioned in the hi-fi magazines (all of them had been supporting the Crosby technique). In the June 1961 issue, both H. H. Scott and Fisher announced multiplex stereo adapters to decode the broadcasts that might—or might not—begin by June 1. In any case, despite the implicit promise of the MPX or STEREO jack on the mono tuners, many a disgruntled would-be convert to

> HiFi & Music Review First issue February 1958 HiFi Review December 1958 to January 1960 HiFi/Stereo Review February 1960 to October 1968 Stereo Review November 1968 to present

stereo FM found that the adapters did not deliver quite the performance promised, even when manufactured by the same company as was responsible for the tuner. I remember one company (they shall be nameless here, but *they* remember who they are) with a very expensive state-of-the-art kit tuner that tried for six months to design a workable multiplex adapter and finally gave up.

In the summer of 1961, Julian Hirsch (and Gladden Houck, his partner at the time) became a contributing editor, and in the October issue he produced his first test reports for HiFi/Stereo Review. In January 1963, Editor William Anderson and I joined the staff. I had left Popular Electronics two years previously to become technical editor of Electronics Illustrated, and a close-to-midnight phone call at home-a clarion call, it seems now---summoned me away from my resistors, capacitors, tubes, and transistors to labor in the Elysian fields of music and hi-fi equipment. I soon settled into the editorial grind, slowly evolving in the process a personal "philosophy," if you will, of the goals and purposes of hi-fi (the various build-ityourself transistor gadgets I had dealt with editorially up until that time required no such introspective exercises).

HE evolution of transistor hi-fi is a story in itself. In the May 1964 issue I wrote a story titled "Transistor High Fidelity" that embodied the opinions of the designers of the day. In retrospect, their optimistic long-term predictions for the transistor were valid, but no one of them saw clearly (or would admit to) the day-to-day problems that were ultimately to drive some of their companies into or close to bankruptcy. What were those problems? Simply that many of the semiconductors of the day were inherently not up to the demands placed on them, their safe and unsafe operating areas weren't being properly taken into account, and in many cases the protective circuits were quite inadequate.

The result, of course, was that the equipment often broke down or blew up under test and in use (and remember we are talking about a time when the *highest*-power units were running at 50 watts per channel). But these problems were solved slowly—very slowly—and reliability is no longer a special problem (which is not to say that transistor equipment is now *immun*e to breakdown, any more than is any other very complex mechanical/electronic device).

In retrospect, there was one big technological development in the Fifties and two in the Sixties. As I recall, the introduction of the Acoustic Research AR-1 speaker went virtually unnoticed in 1955. It seemed to be just another small speaker system, and everyne then knew that a speaker cabinet had to be 6 cubic feet or larger if one were to realize any bass at all from the woofer installed in it. It was simply an immutable law of physics or so it was generally believed. Ed Villchur, the designer of the acoustic-suspension speaker, demonstrated for all to hear that low, clean bass could be gotten out of small boxes—if you sacrificed some efficiency.

In 1967 we introduced the Dolby noisereduction system to our readers in a review of the first two discs that had been Dolby-A mastered. (The Dolby-B system was still years off.) The other breakthroughalthough at the time it was certainly not widely recognized as such-was the advent of the cassette machine in 1963. I don't know how many of you had a chance to play with the book-size lo-fi cassette portable introduced fifteen years ago, but we who did scarcely dreamed that the format would one day wipe out low-cost open-reel machines and at its best be able to provide performance equivalent to that heard from the finest discs

N January 1970 we scooped the hi-fi world with the first story on the four-channel disc, but our early enthusiasm was soon tempered by subsequent events, as the prophetically titled "The Four-Channel Follies" indicated seven months later. Act II of the "Follies" appeared a year later, and by that time I could see the handwriting on the walls-all four of them. There is no question that four-channel reproduction still has promise, but that promise remains to be realized. Its current eclipse-temporary, I believe-was the result of bad promotion, inept marketing, off-target engineering, and poor demonstrations. But I predict that four-channel will rise again!

And perhaps that's a proper optimistic note to close on. In general, my association with high fidelity for the past twenty-five years or so has convinced me that it is a worthwhile pursuit, clearly a less trivial pastime than many other hobbies. For me, it not only provides the opportunity to dabble in the sciences of acoustics, psychoacoustics, mechanics, and electronics, but it offers the unmeasurable pleasures of music as well. With a means so fascinating and an end so worthwhile, who would want any other avocation-or vocation either, for that matter? Certainly not me. And certainly not the six prominent industry figures we have persuaded, in the following pages, to share their visions of what the next twenty years of sound reproduction might be like. 

## **ROY ALLISON**

ALMOST exactly coincidental with the first issue of STEREO REVIEW (then *Hi-Fi & Music Review*) I committed to print an assessment of the high-fidelity industry's growth up to that time and ventured a few predictions of what was to come. It was an appropriate time for such an appraisal, because technological developments were then in the process of making profound changes in hi-fi systems.

The first of these was the introduction of transistors in place of tubes for electronic amplification. Even though the solid-state devices of twenty years ago were unreliable and incapable of survival in high temperatures, it was clear that they would become an important factor in preamplifiers and tuners-and eventually, perhaps, in power amplifiers! I took a seat far out on a limb and suggested then that we might soon have amplifiers as powerful as 200 watts. Of course that kind of power is now taken for granted in receivers; power amplifiers are pushing the 1,000-watt mark. At this point we may well pause and ask how much longer the horsepower race can go on. It seems to me doubtful that we will ever be able to use much more than 500 watts per channel at home. Eardrums should not be asked to tolerate more even if loudspeakers can now be made to do so.

That is not to say there is no room for further progress. Semiconductor technology has brought us high-fidelity electronics products whose compactness, convenience, and performance-to-cost ratios simply could not have been achieved with vacuum-tube circuits. Increased use of IC, LSI (large-scale integrated circuits), and digital techniques can bring us further vast improvement. Those who urge a return to tubes are asking us to follow them down a blind alley; the future is not there.

HE second of those fundamentally important events two decades ago was the introduction of stereo on disc records, which required two loudspeaker systems rather than one. And the third was in loudspeaker-system design. Up to then there had been a few very large, very expensive speaker systems available which offered reasonably good sound, but the performance of systems small enough to fit in most living rooms and inexpensive enough for most people to afford was abominable by today's standards. Those run-of-the mill "systems" were not systems at all; they were general-purpose drivers in general-purpose boxes.

Edgar Villchur's acoustic-suspension system brought about a near-revolutionary change. By designing the woofer and its enclosure as a unit system, he was able to obtain deep, flat, lowdistortion bass from a system of reasonable size and cost. When the first issue of this magazine appeared, the acoustic-suspension system was rapidly gaining popular approval. Soon other manufacturers began making similar systems, and with the establishment of stereo success was guaranteed.

WNE important impetus in the continuing improvement of loudspeakers at very low frequencies is the increased understanding of mechano-acoustical principles among designers as a result of recent theoretical work done in Australia by Neville Thiele and Richard Small. They laid the foundation for design by synthesis: that is, they reduced the relationship between enclosure size and type, low-frequency response shape, efficiency, and woofer parameters to a set of relatively simple formulas. The low-frequency design process need no longer be empirical; it can be a matter of straightforward applied mathematics. This has led to the socalled "computer-designed" system. Computers do not "design" loudspeaker systems, of course. They merely do the calculations that would otherwise have to be done manually. And this new design technique does not extend the range of woofer performance beyond what was always possible. It does, however, make it easier for a designer to achieve best results in each case, as well as more likely that he will do so.

It would be foolish to say that any further refinement in basic loudspeaker performance must be incremental. However, I believe that the really important new work will be the result of extending the "system" concept further to include the listening room itself. Already there is movement in that direction. The major effects that reflections from nearby room surfaces have on loudspeakersystem performance below 500 Hz, for example, have recently been defined and quantified, and they can now be reliably taken into account in a loudspeaker system's design. In a real sense this is combining the speakers and the room so that they can be considered as one transducer system.

A step toward neutralizing the listening room's own acoustic properties has been taken with multiple-channel systems beyond stereo—first with fourchannel systems and now more suc"The day is coming when we will be able, finally, to produce a consistent illusion of really "being there."



**Roy Allison** went from a career in audio and electronics journalism to a series of major positions with Acoustic Research in 1959. He now heads his own company, Allison Acoustics, an organization prominent in loudspeaker research and design.

cessfully with time-delay ambiancesynthesis systems. Undoubtedly this kind of thing will be developed far beyond its present level in years to come. Significant improvement has already been reported when time-delay systems are extended from the normal two rear-channel speakers to four or more, each with differing ambiance information. More sophisticated systems will be devised with which the listener can program any acoustical environment he desires.

It is fortunate that there is this steadily increasing recognition of the crucial role of the listening room, the last link in, the sound reproduction chain. A better understanding of how it can be incorporated into the system design as a whole will surely produce enormous benefits in the future. The day is coming when we will be able, finally, to produce a consistent illusion of really "being there."

#### THE FUTURE OF AUDIO TECHNOLOGY

## **EDGAR VILLCHUR**

"Quadraphonic systems appear for now to have enjoyed a solid market failure, but they represent the direction in which high-fidelity design needs to go for non-electronic music."



Edgar Villchur, founder and prime mover of Acoustic Research, developed the acoustic-suspension speaker system, the dome tweeter, and the now-classic AR turntable. He presently heads the nonprofit Foundation for Hearing Aid Research. N considerably more than twenty years' involvement with audio, I have always felt that a sound-reproducing system ought to re-create, as accurately as possible, the original musical sound as it is shaped by the acoustics of the concert hall or studio, But I realize that this goal is not suitable for all music. For example, standards of tonal accuracy do not help much in evaluating high-fidelity equipment when electronic music is being played, because we don't know what original sound the reproduction is supposed to be faithful to. The original is an electrical waveform produced by a vibration pickup or by an oscillator, and it doesn't become sound until it is fed to a loudspeaker. Under these circumstances the evaluation of sound equipment involves judgments that have more to do with musical taste than with musical accuracy.

However, for "old-fashioned" musical instruments-the kind that can be played without being plugged inaccuracy is a reasonable goal. The traditional task of a reproducing-equipment designer is to eliminate or at least to minimize any coloration imposed by the equipment. The overall record/ reproduce system should also be designed to reduce coloration imposed by the listening room. It is the listening room and not the loudspeaker that is the last stage of a reproducing system, and a typical living room has poor musical acoustics for even a small instrumental group. The listener must be freed, at least partly, from the acoustical environment of his room and given a sense of concert-hall or studio acoustics. Wide-dispersion speakers, careful speaker placement, and speaker design that takes room acoustics into account have all helped, but the major factor that has contributed to conveying a sense of the original environment of the recording was the introduction of stereophonic reproduction.

Now we have gone a step further in the business of simulating concert-hall ambiance in the living room with quadraphonics and the rear-delay systems. Quadraphonic systems appear for now

to have enjoyed a solid market failure, but they represent the direction in which I think high-fidelity design needs to go for non-electronic music. As for the failure, it may have been deserved. With one or two exceptions, the guadraphonic systems I have heard sounded like four mono systems going at the same time, creating an expanded version of ping-pong stereo. Sound reflections in a good concert hall or studio never give the impression that the reflecting surfaces are separate sources of sound. One is conscious of the reflected sound only in the acoustical ambiance that colors the music. In contrast, these quadraphonic-system configurations and/or recordings give an independent existence to the sound from the rear loudspeakers, perhaps to assure the listener that he is getting his money's worth. If a rear-speaker system is to be successful it must convey a sense of the acoustical environment of a concert hall or studio without making the listener aware of any separate sound from the rear. Otherwise it is only a gimmick.

ORE than a decade ago I made a recording of the Fine Arts Quartet for the purpose of staging "live-vs.-recorded" demonstrations. The recording had to have as little reverberation as possible in order to avoid double reverberation during playback-that is, reverberation from both the recording environment and the playback environment. The music was therefore recorded in an open, outdoor location. In a concert hall the sound of the recording reflected the beauty of the quartet's tone color, but in my living room the same tape had a hard, over-bright quality. A live string quartet doesn't sound good in my room either, and neither the tape nor the playback system introduced a substitute acoustical environment. A recording must transport the listener to a concert hall, not crowd the musicians into his living room.

Earphones eliminate room acoustics, and they can be used to help solve the problem of a musically unsuitable listening environment. But they are not acceptable for all occasions or to all persons. One of the problems in sound reproduction that has not yet been fully solved is how to bring concert-hall ambiance to living-room listening. But we are still trying, and maybe we are coming closer.

## DANIEL VON RECKLINGHAUSEN

VER since the invention of the phonograph one hundred years ago, public demonstrations of audio reproducing equipment have been made claiming-and often convincing listeners-that the reproduction matched the original "live" sound. However, aldemonstration each new though showed improvement, the truth is that in spite of all efforts, music reproduction in the home is not perfect. The concert hall or the stage has not yet been brought into the home in a form indistinguishable from the original sound. This lack of perfection gives all of us involved in audio opportunities to improve. A few examples may show possible future trends in combatting the problems that still stand in the way of perfection.

HE reproduction of sound in dwelling-size rooms suffers from several ailments, such as resonances that fall well within the audible range and noise problems for listeners and for their neighbors. A likely solution may be a wearable device, similar to headphones, containing sound-reproducing diaphragms plus a microphone near each ear to eliminate most of the external noise by means of acoustical-cancellation techniques. This would provide more wearing comfort than the tightly sealed, heavy, and restricting headphones acoustically isolating available today. Such a device should also be capable of reproduction of high sound-pressure levels yet contain safety circuits to prevent hearing damage.

The principal advantage of a multiloudspeaker sound system is the possibility of the creation of sound images in various locations in the room. Unfortunately, the supposedly fixed imaginary sound sources move as the listener moves. As many acousticians know, spectacular sound reproduction at the listener's ears can be achieved using a high-quality headphone to play recordings made with two microphones placed in an artificial head. Yet even this technique leaves something to be desired. As long as the listener is immobile, the acoustic images are in their proper position, but as soon as he moves his head the images move (unnaturally) with it. This problem could be avoided if the listener's head movements caused the artificial recording head to move as well. A fertile imagination might then conjure up the vision of a concert hall full of artificial heads, each moving under control of its connected listener. The number of transmission channels required and the resulting costs would be staggering, and the technique would still be applicable only to a live performance. But perhaps one solution might be the radiation of three or four audio signals (from live performances or recordings) using multiple modulated-light sources distributed throughout the room. Partially shielded photo sensors attached to the listener's headphones would pick up and decode the multiple light sources with correct directionality maintained. This would make it possible for several listeners each to achieve a different program "mix."

Within the next decades, digital audio equipment will be used in the home for high-quality sound reproduction and processing. Such equipment will be vastly more complex in circuitry than the equipment we now use. The growth of this field of entertainment electronics will depend strongly on the cooperation between equipment producers and program producers. Meanwhile, records and tapes will continue as program sources because of their relative simplicity, and AM (expanded to stereo) and FM (possibly in three- or four-channel form) radio should also persist.

DIGITAL recording and transmission of audio signals will require agreement on a digital code. The code will involve assigning a group of digital "bits" to a particular level of voltage, with each instantaneous variation requiring a different code "word." (If agreement is not reached, a situation similar to the stalemate in video recording could happen, where various methods of video disc recording coexist but lack interchangeability.) The digital-bit stream representing the audio signal will be controlled by a computer, the heart of the audio system. Control of volume will be the multiplication of each digital code word by a constant factor, while mixing will be digital addition and subtraction. Needless to say, the controls of such audio equipment will look more like a calculator or typewriter keyboard than the profusion of knobs and switches we know now.

In the next few decades more signals will be broadcast and the broadcast spectrum will be more and more crowded, placing more demands on receiver and tuner performance. Perhaps a new class of tuners will emerge: "adaptive" tuners that adjust their selectivities and noise-reducing circuits in response to the actual signals encountered. Such devices may also reduce distortion "Digital recording and transmission of audio signals will require agreement on a digital code. . . If agreement is not reached, a situation similar to the stalemate in video recording could happen."



Daniel von Recklinghausen joined H.H. Scott, Inc. in 1951 and guided that company's high-fidelity research and development efforts during its most eminent years. He is now vice president for research and development at KLH.

caused by multipath reception of a signal by generating multiple delayed signals which can then be subracted from the total signal to cancel the multipath electrically. Such a tuner will require multiple analog or digital delay lines to create these delays.

With luck, the digital audio equipment of the future will not only be better, but also less costly. The rapid drop in calculator prices over the last decade gives us hope for that. Possibly all audio systems and techniques will reach a plateau of excellence in the next few decades, removing the pressures of innovation from designers and affording them more time to correct the deficiencies of the "perfect" equipment they have devised.

#### THE FUTURE OF AUDIO TECHNOLOGY

#### "The coming generation of audio products will bring astounding new levels of technological achievement, but they will also demand more than ever before of the audio consumer."



**Etsuro Nakamichi** manufactured high-quality cassette decks for a large number of well-known hi-fi companies until, in 1972, he introduced his own Nakamichi Research brand name. His research center in Tokyo is a showplace for both advanced cassette technology and live music.

OME exciting and surprising devel-Some exclusing and corporate of the near future of the audio industry. There will also, however, be much confusion and disillusionment in the high-fidelity marketplace. These statements may seem contradictory, but they are, I believe, inescapable conclusions. The coming generation of audio products will bring. astounding new levels of technological achievement, but they will also demand more than ever before of the audio consumer. It will take a highly knowledgeable, acutely perceptive buyer to recognize the difference between true engineering breakthroughs and the machinations of artful marketing experts. As supply begins to outstrip demand, competition (especially among the Japanese manufacturers) will become increasingly fierce, and the consumer will be faced with the task of selecting his equipment amid a multitude of seemingly fantastic technical specifications and performance claims.

What are some of the technical innovations one can expect to see in consumer audio products within the next few years?

GREAT strides have been made in equipment design during the past few years, and I predict further significant improvements in this area. The widespread use of more sophisticated measuring equipment, such as the narrow-band spectrum analyzer, has predictably raised the general level of audio performance. Distortion and noise are several orders of magnitude lower today than they were just a few years ago. But, more important, new measurement techniques have given us a better understanding of what makes one component sound better than another. It was gratifying to me, for example, to have the narrow-band spectrum analyzer confirm my longstanding conviction that small-signal linearity has a tremendous effect on perceived sound quality. Before this remarkable test instrument came into existence, low-level signals defied measurement because they were invariably buried in noise. Further experimental and theoretical work being done on equipment design today will undoubt-'edly come into bloom as the products of tomorrow. Components of the not-toodistant future will not only measure better but sound, significantly better as well.

The field of magnetic tape recording will most probably be an arena for exciting improvements and innovations. Mi-

## **ETSURO NAKAMICHI**

croprocessors have already begun appearing on a number of tape-recording products; microprocessor-controlled systems will undoubtedly become standard features shortly.

There is much speculation about the appearance of tape decks utilizing digital recording processes, such as the PCM (pulse-code modulation) system. My honest belief is that digital recording still has a very long way to go before it appears on the market. True, a number of notable Japanese firms have exhibited various PCM recorder prototypes at recent shows, but all such prototypes were, without exception, produced at extremely high cost. PCM and other digital signal-processing techniques, furthermore, are still suffering from a number of technical deficiencies despite impressive claims for dynamic range, frequency-response linearity, and distortion. Although exact causes are yet to be determined, it would seem that digital recording systems are experiencing difficulty in gaining the endorsement of critical listeners. Just as the earliest solid-state components were criticized for what was later termed "transistor sound" there is already talk in audiophile circles of "digital sound" as the major shortcoming of systems such as PCM. Considering the very high cost of present digital recording systems, and the fact that even in this day and age a small minority of audiophiles still believes vacuum tubes "sound better," 1 think it would be misleading to suggest that a sonically satisfactory and reasonably priced digital tape recorder is just around the corner.

As a manufacturer who has built his reputation on cassette-deck technology, I feel that the most exciting and immediate innovations in magnetic tape recording lie in the areas of new tape formulations, improved magnetic heads, and more effective noise-reduction systems. New tape formulations and magnetic heads, both of which take advantage of radically new metal alloys and manufacturing techniques, already exist at an experimental level and provide a dynamic range far in excess of what can be attained with today's topof-the-line products. I believe that within the next few years these advances will be introduced on cassette decks primarily aimed at the professional and semi-pro market. With the aid of new noise-reduction systems, these cassette decks will attain dynamic-range figures unattainable with even the best of today's open-reel recorders.

BELIEVE chances are good that the more important developments in audio's future will come from television. After all, every home has one or more TV sets, and the TV industry has ample financial resources for vast new development projects.

Specifically, what could happen is the coming into our homes of a multiplicity of wide-band information channels -channels capable of carrying a video signal. It's only logical to assume that some of those channels will be used for audio, whether they're beamed down, multipath-free, to a little dish antenna on your roof from a satellite, or whether you recover them from a special disc recording. That could change the picture for the "front end" (the signalrecovering components) of audio systems in twenty years. Audio signals may well come from the "TV set" and other devices designed to handle video signals. And that means that audiophiles (and magazines like this one) will have a lot less to worry about: if the set is designed to broadcast, receive, store, and recover video, that will end any further discussion of such problems as audio bandwidth and signal-to-noise ratio in this part of the system.

NCE the audio signal is recovered, it will more than likely be fed to reproducing equipment that doesn't differ all that much from what we have today. Nearly twenty years ago, when you went into a hi-fi shop for a stereo system, chances are you came out with something like a Scott 299 amplifier, a pair of KLH 6's or AR-2's, and maybe a Garrard changer or a Rek-O-Kut turntable. Today, for the same few hundreds of dollars (and without even taking inflation into account), you walk out with something with a wider frequency range, lower distortion, no rumble, greater reliability, and so on. That's just remarkable, but the configuration of today's system remains pretty much the same. And the improvements have as much to do with economics and competition as they do with new technology. But how many zeros do you need after the decimal point in a distortion specification? Perhaps a hundred-watt-per-channel amplifier can be made to fit into the palm of your hand, but whatever for? You've still got to put the knobs somewhere, and even now our fingers can barely find their way around the buttons on those little calculators.

There's also the whole area of signal processing, a topic that particularly fascinates me. But there's one question that has yet to be answered about such devices: how hard will people be willing to *work* at getting a desired effect or sound quality? Today, for example, there are a number of equalizers that can be really effective, but I suspect that the reason they're being sold is mostly that they are there to be bought.

ND finally there's the whole matter of synthesizing in the living room the acoustics of a much larger space-an idea that has occupied a small corner of my mind for the last twenty years. The bits and pieces are now out therefinally-that will enable us to put something together that's really convincing. But while we don't need as many speakers around the room as there are reflecting surfaces in the concert hall, I can see no way of getting around the need for significantly more speakers than the one additional pair now being used for quadraphonic sound. Will a significant number of people be willing to work hard enough to get things sounding right to warrant somebody's developing such a product?

I certainly don't know the answer to that one. But perhaps there will continue to be for the next twenty years—as there have been for the past twenty those in the audio industry willing to take the trouble to find one. "Perhaps a hundredwatt-per-channel amplifier can be made to fit into the palm of your hand, but whatever for? Yeu've still got to put the knobs somewhere."



Henry Kloss, founder of Advent Corporation, has been prominent in the histories of both Acoustic Research and KLH, of which he is the "K." Mr. Kloss, who developed the Advent "Videobeam," is now independently engaged in further projection-television research.

#### THE FUTURE OF AUDIO TECHNOLOGY

## PETER GOLDMARK

"One fact that has to be faced is that there may be a saturation point for passive entertainment; if there is, we're not very far from it."



Dr. Peter Goldmark, best known to the audio world as the developer of the LP record, actually spent most of his illustrious career in the area of video and television. Until his recent death he directed Goldmark Communications in the manufacture of video program materials for commercial users.

E tend to look upon the potential popularity of home video recordings as a great unknown. It's like a multi-dimensional puzzle, and you have to consider a number of segments or pieces. One of these has to do with pure enjoyment content vs. money, spent. How much of his dollar will the consumer allot to a recording (video) he knows he will view perhaps only once or twice, as opposed to a recording (music) that he knows from experience will give satisfaction for many replays? Another factor is competition. More and more movies are being shown on the air by the national networks, and one of the reasons is that they are being used to counteract the increase in popularity of pay TV over cable. I suspect that the national broadcaster, with his enormous market, has not yet really begun to flex his muscles. When he does, it's possible that the owner of a home video player, after an initial period of infatuation with the novelty of it all, will decide that he's investing his entertainment dollar in the wrong place and return to broadcast TV. Of course, we cannot vet take into account the effect of commercials and the editing that so many broadcast movies are subjected to. This is another unknown.

One fact that has to be faced is that there may be a saturation point for passive entertainment; if there is, we're not very far from it. There is simply so *much* to see and so little time to see it. Furthermore, we cannot automatically expect the consumer to make a practice of taping material off the air for later viewing. For some reason, taping off the air is not the great indoor sport ig the U.S. that it is in Europe. Also, who is to say that the "later viewing" will ever take place? By that time there will be new material competing for the consumer's time.

OF course, there is the hope that the home video medium will be able to compete by offering hitherto unavailable program material: informational or educational programs, for example, things that will help a viewer improve himself in his job or in a sport, assist in hobbies or other self-improvement. The programs of this type now offered by the national broadcasters are few, and the viewer has no control over them. Spectator sports is another area that already shows promise. One can imagine, for example, a videotape album containing all the winning performances from a season's Olympic Games.

One program possibility often suggested-and one about which I am frankly a little dubious-is the rock spectacle or live popular-music concert. My own children have attended events such as this, but it seems to me that what they seek is the excitement of an experience shared with thousands of people simultaneously, plus the opportunity to share the live presence of their music heroes. Whether a home medium can succeed in supplying anything like that ambiance is questionable. It may well turn out that the audio part of the program will prove much more important in such a production, leaving the video portion with a very subsidiary role. (Note that although there are some rock programs on TV, they are mixed with a great deal of variety material. You never see just what you'd experience in Madison Square Garden during a rock concert.)

IN any case, there are going to be quite a few TV sets with videotape recorderplayers coming on the market this season. This will be a sort of test, because it may show what the consumer appetite is out there-where it is, and how big it is. It may also show how much money people are willing to invest in home video. I admit that the tape player and the video program on the tape will amount to a fairly expensive package, but it shouldn't be overwhelming. In general, something like a two-to-one ratio of costs-video materials vs. present home-entertainment media-can be expected. If the attractions of the medium's content can successfully offset its cost, video may yet find a home with the consumer.

I do not yet, by the way, see any signs that my own children are making a special adaptation to video technology. They all like to listen to music, but otherwise they identify communications like everybody else—with entertainment or filling some informational need. We do not have a video machine of any kind at home, and there seems to be no demand for it in the family as yet. What do we turn to for entertainment? Well we have an enormous collection of disc recordings.

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# CASSETTE DECKS

Once you know what technical specifications and operating features are available within each price class, half the buying job is over

# By Ivan Berger



NCE you've decided that a cassette deck is what you want to buy, the easy part is over. What you have to do now is buckle down and study the features and specifications of all the available units and figure out what they mean in terms of your personal performance needs. And once you've done that, you need to determine which of those operating features and technical specifications are available in each price range and try to arrive at a relatively painless compromise (if compromise you must) between the performance you want and the price you can pay.

If all that sounds a bit too much like work, rest easy: we have already done much of the required research and are about to offer you a series of synopses of what is available in each price class. When you know just what you get-or don't get-at a given price, you'll be able to decide whether it would be better to pay a little more and step up a notch or two, or to lower your sights a bit and perhaps spend the difference on tapes or microphones.

### Under \$160

Cassette decks bearing price tags of \$160 and under tend to have few special features and to be somewhat skimpy in technical performance as well. You can usually expect wow and flutter figures (weighted) of about 0.1 to 0.25 per cent. This is good enough to keep the music from wavering or gargling audibly-unless you are particularly sensitive to such effects. Listen to a recording of a piano, harp, or acoustic guitar on the unit to determine if the wow and flutter is low enough for your ears. Dolby noise reduction is fairly standard even at these prices-but even with Dolby noise reduction, neither frequency response (typically specified at about 50 to 13,000 Hz, with no statement as to flatness) nor signalto-noise ratio (about 55 dB with Dolby) is equal to that provided by the better

FM tuners. What that means in practice is that if you compare your recordings directly with the FM broadcasts or records you tape, you'll hear a noticeable (though not always very noticeable) difference. But, in any case, most listeners find the performance at this price level perfectly acceptable.

Sankyo STD-1700, \$150

You will find a few extras, even here, if you look around a bit. Servomotor speed control is fairly common, and several models have a peak-limiter switch. (Limiters let you record at a higher average level without worrying that sudden transient peaks will overload the tape or heads and cause distortion. Since the higher noise levels of low-cost decks force you to record at higher average levels, such a feature can be quite useful.)

At the very bottom of this price range, Lafayette's \$70 RK-715 omits even microphone inputs-but that's not as serious as it appears. Many users of even more expensive decks seldom make live recordings, but just tape off the air, from records, or from other tape decks. Advent, in fact, omits mike inputs from its \$400 201A deck for just that reason (though low-noise microphone preamplifiers are available for it separately, at \$40, if you need them).

### Around \$200

At this level,  $\pm$ \$25 or so, you'll find both improved performance and a few more features. In addition to peak limiters (or in place of them) there will often be *peak-level indicators* that flash to indicate the presence in the recording signal of high-level transients that are too fast for the recording-level meters (which read average, not peak, signal levels) to catch but which are still capable of overloading the tape momentarily. Peak-level indicator lights can also be monitored visually from across the room while you are taping a broadcast.

Adjustments for tape type get more flexible in this price range also. While simpler machines tend to have single





Sansui SC-5100, \$600





Hitachi D-220, \$160

switches which change bias and equalization together to match either of two general tape formulations, more expensive models offer at least three or four combinations, usually by separating the bias and equalization switches. This increases your chances of matching the characteristics of the deck accurately to the tape you're recording with. Several machines have memory rewind, a convenient aid in checking back on what you've just recorded: set the counter to zero when you start recording, and when you've finished, press the rewind button; the tape will return to the zero point and stop itself. ready to replay. Cueing is another handy feature to have; it lets you monitor the "chatter" of the tape in fast forward or rewind for fast location of selections. Several decks have input mixing too. With line and microphoneinput circuits separately controlled, you can use both at once, mixing live material from your microphones with music or sound effects from records. You can sing along with the Met (or the Muppets) or add a little prerecorded color to a taped bedtime story or slide narration. Independent output-level controls also begin to appear in this price class.

The chief differences between this price class and the one below it are in the area where improvement is most needed: performance. The typical deck in the \$200 class has a signal-to-noise ratio (with Dolby) of 60 dB or betterabout what you'll get from most FM tuners on stereo programs-and response that's flat within  $\pm 3$  dB to 13,000 Hz or so. Wow and flutter specs also improve significantly, to between 0.08 and 0.1 per cent, typically, in a weighted measurement. That's not terribly impressive by the standards of the best cassette machines (though openreel machines, not too long ago, couldn't have matched this performance at this price level). But the ratio of price to performance is attractive enough to make this a very popular price category.

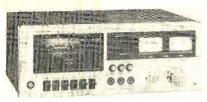
# Around \$300

Fisher CD 4020, \$170

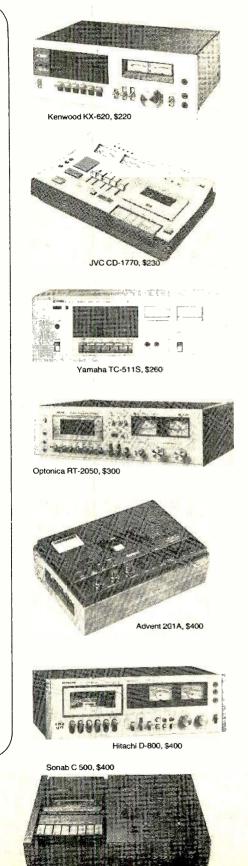
The range here is actually from about \$235 to \$340, and it offers the widest model choice-about fifty-though only about twenty manufacturers are involved. The main improvement in performance here is in high-frequency response, which is typically flat within  $\pm 3$  dB to 16,000 Hz—or at least to 15,000 Hz. Add a slight improvement in signal-to-noise ratio (just a decibel or two, on the average) and another slight improvement in speed constancy (wow and flutter averaging about 0.06 to 0.09 per cent instead of 0.08 to 0.1), and you'll get sound that's on a par with that of a good FM tuner receiving a strong stereo signal, but still not quite a match for that of a top-quality, widerange disc.

One indication of the performance available is the profusion of switchable multiplex (MPX) filters (they are almost unknown on lesser decks). Since the 19-kHz "pilot" tone that is a necessary but non-audible part of stereo FM signals can confuse Dolby circuits, and since not all tuner filters adequately suppress this tone, most cassette decks have circuits to filter it from the signals they're recording. But such filters also tend to reduce high frequencies down around 15,000 Hz, so it's good to be able to switch out that filter when you don't need its services. And if the deck's high-frequency response is capable of approaching 19,000 Hz, switching out the filter becomes more and more important if the recorder's full potential is to be realized.

Two other features commonly found in these decks are also FM-oriented. A *Dolby-FM* switch position enables you to use the deck's Dolby-decoder circuitry as a "straight-through" decoder for Dolbyized FM broadcasts you *don't* wish to record. The other FMoriented feature is *timer record*. Together with a suitable external timer—anything from an applianceswitching clock to Nakamichi's elaborate digital device—this feature lets



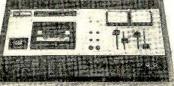
Realistic SCT-15, \$200





Royal Sound RS-5800, \$500





919, \$450

CASSETTE ....

"... they seem to evoke an acquisitive itch..."

you set the deck to start recording at a preset hour—handy if there's a program you want to tape while you're not home.

#### The \$400 Class (±\$50)

Here is where luxury begins. Performance in all categories improves slightly, with rated frequency response often running to 17,000 Hz or more within  $\pm 3$ -dB limits and wow and flutter often as low as 0.05 or 0.06 per cent. But the most obvious differences are in the operating features offered (major improvements over the *performance* level of the \$300-class machines would be very difficult and even more expensive to attain).

Below this price level there are very few *three-head* decks (Fisher has one for as little as \$250), but in this class there are several. With separate heads for erase, record, and playback (instead of one head that must serve for playback and recording alternately), you can monitor your recordings as you make them, listening to the output from the playback head while the recording is still in progress. Each head can also be designed to do its job without the technical compromises inherent in dual-purpose heads: the record head's gap can be made wide to resist saturation and consequent distortion, while the playback head's gap can be made narrower for more extended high-frequency response.

You'll also find a few more decks with *multiple motors*. Their servomotors drive only their capstans, and a second motor drives the take-up and supply hubs. That opens up the possibility of reduced wow and flutter (which greatly depends on the capstan's steadiness of motion) and of faster rewind and fast-forward operation (for a C-60 tape, typically 1 minute with two-motor decks, 1½ minutes with one-motor models). It also simplifies the tape-transport mechanism, which should make for greater long-term reliability.

Recording-bias frequencies are higher in this class, typically 95 to 105 kHz rather than the 85 to 95 kHz of \$300-class machines. That also helps high-frequency performance; the design rule-of-thumb is that the bias frequency should be five times the highest frequency to be recorded to prevent mutual interference.

One of the main limiting factors in cassette recording is the tape itself. Tape manufacturers therefore keep coming up with improved formulations. But these often have slightly different bias-current and equalization requirements than existing tapes. To take full advantage of these new formulations (including those yet to be developed), most of the more expensive decks have, at a minimum, separate bias and equalization switches, often with three positions each instead of the two apiece more common in the previous price group. (Three settings per switch doesn't always mean nine possible bias/equalization combinations, however; equalization is often the same in two positions of that switch, with the extra position just to provide a visual match for the three distinct positions of the bias switch.) JVC's KD-75, Aiwa's AD-6400 and AD-6550, and Kenwood's KX-1030 also offer fine adjustment of bias or equalization (JVC's knob is a five-position switch while the others are continuously variable over a range of about  $\pm 10$  per cent). Several decks can also sense mechanically when physically coded chromium-dioxide casettes-or their electrical equivalents-are being used and set their own bias and equalization accordingly.

Automatic  $CrO_2$  switching: A mechanism in a cassette deck that automatically switches the machine's bias and equalization when it senses the presence of a coded notch in the rear edge of a chromium-dioxide cassette.

Automatic reverse: An operating feature that enables a cassette deck to play—and sometimes to record—in either direction of tape travel.

**DIN jack:** A jack designed to accept the European-type plugs that consolidate the four tape inputs and outputs into one socket (four "hot" leads plus ground).

**Dolby:** The registered trademark of a noise-reduction system developed by Dolby Labs, Inc. Most cassette decks include a Dolby-B circuit which reduces noise introduced in the process of making a recording but is not designed to do anything about noise already in the program being recorded, whether it is an FM broadcast or a disc.

Input mixing: Facilities permitting the combination (mixing) of several inputs (microphone or line) on the limited number of available "tracks" of a tape recorder (two in the case of a cassette deck). On cassette decks, this facility is used for mixing the line inputs (from a disc or tuner source) with one or two microphone inputs. Limiter: A circuit that restricts input signals to a certain maximum level near the approximate overload point of the tape. This prevents overload and saturation of the tape by large input signals while allowing recordings to be made at a high enough level that tape noise is not excessive.

### GLOSSARY OF CASSETTE-DECK FEATURES

**Memory:** A feature that simplifies finding the beginning of a specific recording. To use the device, the tape counter is set to "0" at the start of a recording; later, the memory feature will return the tape to the exact point at which the recording began simply by placing the deck in the rewind mode.

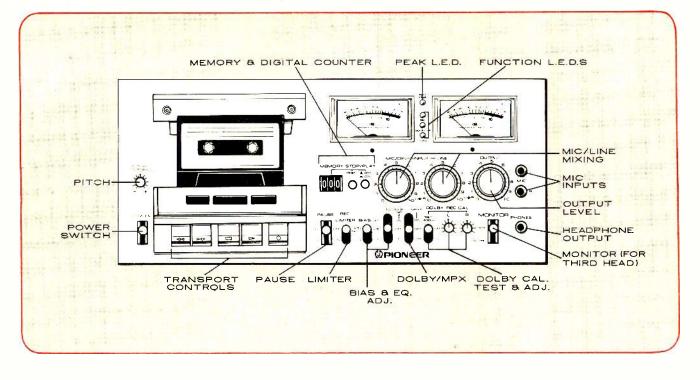
MPX switch: A front-panel switch that inserts a multiplex filter into the input-signal path for recording stereo-FM broadcasts. These broadcasts are accompanied by a 19-kHz pilot signal which, though beyond the frequency range of just about all cassette decks, could result in audible "beat tones" if it were to interact with the bias signal of the tape deck. A more common problem arises from the fact that the Dolby encoding circuit can be confused by the 19-kHz signal and respond improperly. The MPX filter applies additional suppression to the 19-kHz tone (in addition to that already applied by the FM tuner).

**Multi-motor deck:** A cassette machine with separate motors to drive the capstan and the tape hubs. Decks are available with two and even three motors.

**Peak LED (light-emitting diode):** A flashing indicator of transient high-level input signals that exceed a given preset threshold level that approaches overload.

**Peak-reading meters:** Meters that have electronic assistance circuits enabling them to indicate instantaneous peak values of the input signal. They indicate fast high-frequency signal peaks that average-reading (or VU) meters barely respond to.

**Pitch control:** A knob that permits variation of a cassette deck's nominal tape speed over a small range. This feature can be helpful to a musician wishing to alter the pitch of a recorded composition slightly in order to play along with it.



Interesting and individual features begin to crop up more frequently in this price class. The Advent deck has just one meter instead of the usual two. The single meter can be switched to monitor both channels at once (showing the higher level of the two) or to show the

**Servomotor:** A (usually) d.c. motor whose rotational speed can be controlled by speed-detection circuitry that generates an error-correcting voltage whenever the motor's speed drifts from its proper value.

Solenoid operation: In place of mechanical linkages to control the tape transport, some cassette decks have light-touch pushbuttons. These switches apply current to a solenoid (an electromagnetic mechanism), and the solenoid does the actual work of resetting the internal drive mechanisms for the desired operation.

Three-head deck: A cassette machine with separate erase, record, and playback heads that permit monitoring off the tape as a recording is being made. (A few machines have a non-monitoring third head for tape calibration.)

*Timer:* A switch or switch position that allows the deck to start recording the moment a.c. line power is applied to it. If the a.c. power is controlled by an external clock timer, unattended recordings can be made.

Variable bias/equalization: Controls (either multiposition switches or potentiometers) which afford greaterthan-average flexibility in setting bias and/or equalization to achieve the best performance from a particular tape type. level in either channel. Along with the master level meter goes a master level control with individual adjustments for each channel for level matching (the Marantz 5030 and Rotel RD-30F share this latter feature). Two of Aiwa's models can be started and stopped automatically by the Aiwa turntable to simplify the taping of discs. Marantz's 5420 and 5400 have pan pots in their input mixers so that some signals to be recorded can be positioned at any leftto-right point within the stereo spread, and Nakamichi's 500 has a third "center-blend" microphone input. Sansui's SC-3100 will automatically skip the initial portion of the tape to guard against your trying to record on the nonmagnetic leader. Dual's C919 can be installed as a top-load or front-load unit, with pop-up meters and small mirrors over the tape compartment so that the meters and tape motion will be visible from whatever angle you view the deck. Sharp's RT-3388 has a built-in microprocessor (a true computer) to control everything from timing recordings to finding any particular selection on the tape at the press of a button.

#### Above \$500

This is where the decks become so feature-laden and attractively styled that they seem to evoke an acquisitive itch automatically. These are, of course, the models that are least alike in appearance and facilities, because price no longer restricts the designer's expression of individuality. Virtually every feature mentioned so far can be taken for granted here. There's hardly a deck lacking three heads, mixing inputs, memory rewind, timer start, high bias frequency, and so on. Quite a number have multiple motors as well, and several three-head machines employ dual capstans, one on either side of the head assembly, to regulate tape tension across the heads and smooth tape-speed irregularities. And though overall performance is better than that of the \$400-class machines, again it's just a little better: yet another kilohertz or so at the high end, signal-to-noise ratios more frequently above the 60-dB mark (and here and there above 70 dB), and perhaps another 0.01 per cent knocked off the wow and flutter figure. The one specification that shows most improvement is fast-winding time (owing to the multiple motors).

Many of these de luxe models are solenoid-operated, with very lighttouch pushbutton controls. Solenoid operation makes it easy to add remote control as an extra-cost option. Remote control makes it easier to cut out commercials and announcements from your armchair when you're taping off the air, or, with the controls by the turntable, to start and stop a recording more precisely when taping discs.

Metering facilities become more interesting and elaborate in high-end machines, too. Aiwa's new AD-6800, for example, has recording-level meters that look quite ordinary—until you notice that they have *two* needles each. In normal operation, one needle on each meter reads average recording level;



the other reads peak level, registering against the same scale for easy comparison. A peak-hold button causes the meter to show the highest program peak for up to 30 minutes. These meters are also used to adjust bias for the specific tape in use: a built-in oscillator feeds the tape 400- and 8,000-Hz tones, and bias is adjusted until equal readings on both meters indicate that output from the tape is the same for both frequencies. The head that reads tape output for this test is technically a separate playback head, but it is used only for tape-calibration purposes.

Dual's C939 has another unusual metering system: no meter needles. Instead, there are arrays of seven green and five red LED's per channel. Since LED's don't have the mechanical inertia of meter needles, they can easily respond fast enough for peak-level reading; Dual also lets you use them for average-level indication at the flick of a switch.

Even the most ordinary-looking meters may contain pleasant surprises: the scales on the Akai GXC-570D, the Nakamichi 600, 700 II, and 1000 II, the Pioneer CT-F1000, and the Technics RS-9900US all read down to at least -40 dB, or 20 dB lower than the usual meter scale. (The Technics 9900's transport-on a separate chassis from its recording amplifier-has a meter that reads time remaining on the tape; one of the Aiwa AD-6550's recordinglevel meters can be switched to read tape time, too.) And quite a number of machines priced from about \$400 up have meters that either read peak level (as in the Optonica RT-3535 Mk II, the Sonab C5000, the Lenco C2003, the Nakamichis, the Teac A-303 and

A-640, the two Tandbergs and the Technics RS-9900US) or can be switched to read either peak or average levels (as in the Technics RS-671US and RS-640US, the Teac Esoteric 860, the Hitachi D-800 and D-3500, the JVC CD-1970, and the Akai GXC-570D and GXC-760D).

Dolby circuits are the norm, of course, even in the least expensive cassette decks. But several of the more expensive models have both Dolby facilities and a second noise-reduction system. The Nakamichi 1000 II and Uher CG-362 have the DNL (Dynamic Noise Limiter) as their second system; al-

> "Dolby circuits are the norm ... but several of the more expensive models have both Dolby facilities and a second noise-reduction system."

though not as effective as the Dolby technique, it can be used to reduce noise on any tape, not just specially encoded ones. The Teac Esoteric 860 has dbx II, a compressor/expander system that can yield signal-to-noise ratios of over 80 dB. However, dbx-encoded tapes *must* be played back through dbx decoders; Dolby tapes, by contrast, sound reasonably good when played back undecoded.

The Teac 860's mixer is also the most elaborate found on any cassette deck: its four outputs can all be used for line or microphone inputs, with a switchable 20-dB attenuator in each mike-input circuit to prevent microphone-preamplifier overload with high-output microphones or very loud signal levels. The 860's mixer also has a master gain pot plus pan pots on all four of the input channels.

All cassette decks can play for up to an hour without interruption if you use C-120 tapes. For still longer listening, Akai's GXC-730D, Dual's C939, and Uher's CG-362 will play both sides of the tape before stopping (or start over with the first side again if you prefer); the Akai and Dual will also record in both directions. If you need still more playback time, Lenco's PAC 10 not only plays both sides of the cassette but holds and plays up to ten cassettes, in sequence, by means of a system similar to that of an automatic slide projector. Additional "cassette trays" are available if you want to have the next ten or twenty hours' worth of music ready in advance. A few decks without reverse facilities (the Nakamichi 1000 Sansui SC-5100, and Akai II. GXC-570D), though they play just one side of the tape, can repeat that side indefinitely if you wish.

On the other hand, deliberate interruption is the idea behind Dual's unique "fade edit" feature. This allows you to gradually erase undesired portions of a recording for a professionalsounding fade-out. You can also fade in already recorded material. A twohanded interlock ensures that you won't accidentally edit out something during play by hitting a button accidentally. You can also do a measure of such editing-out with the punch-in recording feature on Pioneer's CT-F1000 and Tandberg's C-330. This feature, more commonly found on professional or semiprofessional open-reel decks, lets you start recording after the tape begins to move instead of requiring that you press "play" and "record" simultaneously. Of course, this also takes an extra measure of care so that you don't accidentally record over some material that you meant to save.

### Time for Decision-

Making the final choice is of course not easy with such riches to select from, but various pressures will help to narrow the field of choice: the state of your finances will limit it a bit, and a physical space that is suitable only for a front-loading deck—or only for a toploading one—will cut the choice of models about in half. (Incidentally, the type of loading a machine employs has no necessary relationship to its quality.) For the rest, you'll just have to face the agony of decision, but when you do, it is always best to be systematic about it: 1. From the models in your price range, pick the ones which have those features you cannot live without (if they also have others, fine, but don't let that affect your choice).

2. Next, test their performance at a dealer's showroom by making test recordings and comparing the deck's recorded output with your source material. Two good sources to use are fresh discs of wide-range music (discs have a wider frequency range than FM, and they can be played back for direct comparison) and the "white noise" you'll find between stations on the FM dial

with the tuner's muting shut off (the latter is an extremely difficult signal for a cassette deck to record, however, and the recording should be made at a level of -10 dB or even lower).

3. If you can't tell the difference between the original program and the recording of it, then the deck is good enough; if you can't afford a deck on which the difference is inaudible, pick the one whose differences are least apparent or important to you. No matter what you read on the spec sheet, it's the sound you hear that ultimately counts.

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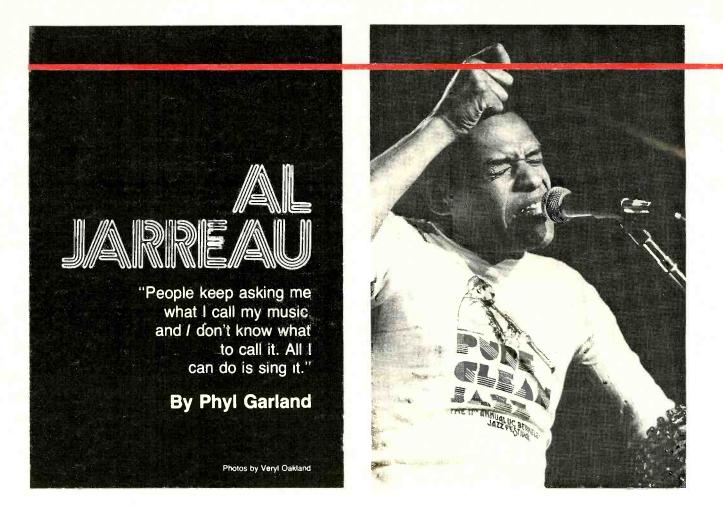
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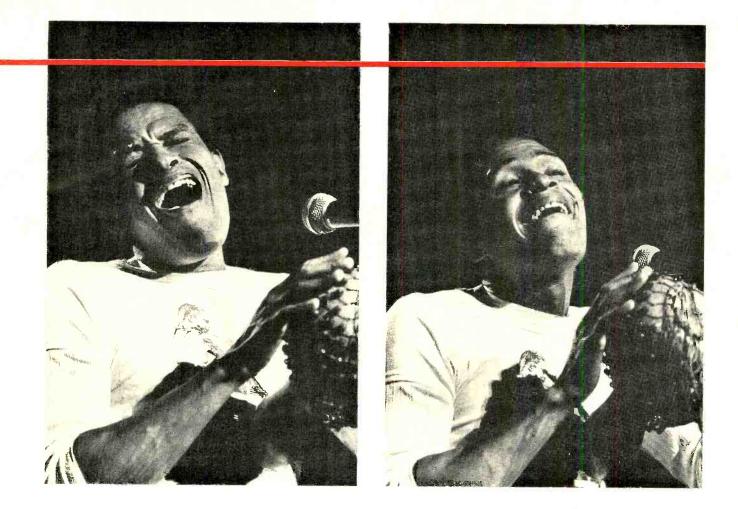


L JARREAU perched on the foot of his midtown Manhattan hotel bed one late-September day, his long, athletically lean body relaxed and refreshed after a jog through Central Park. His face, so deceptively boyish as to belie his thirty-seven years, was still aglow with his triumph of the night before. Somehow, he couldn't quite believe that all those people had packed Avery Fisher Hall in Lincoln Center just to hear him-in a concert that was sold out a week before he even arrived from the West Coast. He had lived up to their expectations, plucking goodies from his distinctive repertoire and improvising with a vocal virtuosity that brought the crowd to its feet, rushing to the apron of the stage shouting for more. Surely this sort of adulation could not be for him, not after all his years of frustration just trying to land a recording contract.

What precipitated Jarreau's final breakthrough from near obscurity was his 1977 album, "Look to the Rainbow," which he recorded live in Europe (Warner Bros. BZ 3052, designated a STEREO REVIEW Record of the Year—see page 97 in this issue). The critics received it with rapture—and fumbled for words to describe his vocal gymnastics. But that exceptional album, his third for the label that finally took a chance on signing him, was a sudden breakthrough only in terms of recognition, not in the development of his talent. That was not so sudden. Jarreau remembers the years of constant, craft-stretching effort that went into the making of his career.

"It's been mounting all along, little by little. The underground growth, getting good solid roots there and sending up a little shoot and sprouting out," he said in musically poetic cadences. "People keep asking me what I call my music and I don't know what to call it. All I can do is sing it. I don't care what they call it, because it'll identify itself in time. They can call it r-&-b, but that wouldn't be right. Some call it jazz and I think that's the closest category for it, but I think it's defining itself further within that category. It's not hard-core jazz, the jazz of Ella, Sarah, and Jon Hendricks. It has those influences, but it's not that."

Exactly what his music is has yet to be specified—if that is at all important. What matters far more is that Al Jarreau, a Seventh Day Adventist minister's son from Milwaukee, has come up with a new sound that quickens the curiosity of soul and rock devotees and at the same time whets the appetites of jazz stalwarts. In the aftermath of the ear-numbing tumult and narcissistic display of the late Sixties and early Seventies, he has emerged to project a cooly salubrious image that is devoid of pretense. His sound is complex, but totally dependent on his own voice rather than on thunderous amplification or electronic wizardry. Though he plays no instrument and composes his songs by singing melodies (with descriptions of chord changes) into a tape recorder, he "orchestrates" his vocals by imitations of a flute, sax, bass, or percussion instrument. What he sings is an inter-



esting mixture of flavors that seems to go down well for a variety of tastes.

Though he calls himself a "jazzer" when he is pressed to categorize himself, Jarreau readily acknowledges his debts to other musical influences. First of all, there was his family back in Milwaukee, in which he was the fifth of six children. His father played musical saw and his mother, a piano teacher, tried to give him lessons but found him to be a less than receptive student. "She used to say, 'You know, one of these days, you're going to wish you'd learned how to play.' And she was right," he admitted.

But even then he had preferred to sing. "They tell me the first time I sang in church, I was so little they had to stand me up on a table—I've been doing it *that* long. I remember giving a garden recital when I was about seven years old, fund raising for the church." A touch of gospel buoyance remains in his music today, and he attributes part of his current appeal to the positive messages in such songs of his as We Got By. He even admits to doing a little preaching through his music, saying that "this is the mission of folks who've got the ears of the people."

After graduating from high school, where he had sung in "little street-corner ooh-shooby-doo quartets,'' Jarreau aimed at further education. "I internalized the goals and ambitions my mother and father had for all us kids. Both of them graduated from Oakwood College in Huntsville, Alabama, back in 1924. That's a Seventh Day Adventist school. It was part of the upward mobility of the black family-get those children into school, honey; get those children an education and maybe we'll have a doctor or a lawyer in this family who won't have to struggle like we did." Dutifully, Al graduated from Ripon College in Wisconsin with a major in psychology and went on to earn a master's degree in counseling from the University of Iowa.

After joining the Army Reserve and spending several months on active duty, Jarreau found a nice, steady job

as a counselor for the California Division of Rehabilitation, working with physically and emotionally disabled veterans. That was in 1964, and it may have seemed then that Al Jarreau would turn out like so many other folks who make a decent living, lead a decent life, and are never "heard from." Except for one thing. After working all day counseling, Al would jam most of the night, singing with the George Duke Trio in a San Francisco club called the Half Note. "I'd been singing all along," he said. "When I was in college I'd had a quartet and we'd play dates like the Miss Wisconsin Pageant. Most of the time I was singing in clubs for free, just for the enjoyment.'

Eventually his double life led to a point of no return. "I was really falling out of love with counseling," Jarreau said. "I was out till two or three a.m. and then getting up to be at work at nine. I was feeling very ineffective bogged down in paper work, the bureaucracy. I just wasn't a very efficient office worker, though I could communi-



cate quite well with the people I was seeing."

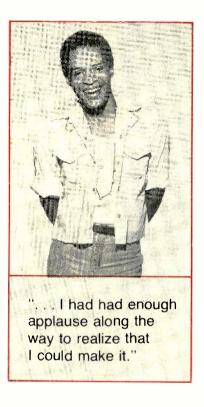
In 1968, Jarreau gave two weeks notice on his nice steady job and set out to become a full-time singer. "I was married and had responsibilities," he noted, "but I had had enough applause along the way to realize that I could make it." It was then that his distinctive musical style began to develop. "Up to that time, when I'd been working with George Duke, I was a traditional jazz singer, doing Moonlight in Vermont and all those things from the standard book, scattin' a chorus on every song. I was already doing some of the instrument thing, though, and had tried 'fluting,' but only in select places."

Now totally on his own, Jarreau picked up an unknown guitarist, Julio Martinez, and they worked as a duo. "Suddenly, there was all this room for me to create too," he recalled. They found a gig at a Sausalito club, Gatsby's, where Jon Hendricks had played some years before. "Actually, they were expecting someone else, but we showed up and auditioned. At first, we were supposed to play only one night, but after six nights you couldn't get in the place. We played there four months."

WITH space to improvise, Jarreau began doing different things in his music. "With Julio, I began to get into samba and that Brazilian thing, and I started playing cabasah. Since there was no drum, I had to be the drum, doing things to add to the music. I really learned how to build a context with me as a singer and myself accompanying me. It was a rich experience."

The material he sang also began to change. "I did a lot of things from the Beatles book-which I intend to record someday. I also did a lot of Joni Mitchell songs. I love that woman. She's a wonderful poet and she writes such good music, too. It was the first time that I began to feel the influence of popular music in general." He remained somewhat cool toward rhythm 'n' blues. "R-&-b was mostly stuff that I'd listened to and absorbed. I was never really an r-&-b singer or sang very many songs from that idiom, but I listened to it, everybody from Otis Redding to Aretha Franklin and Stevie Wonder today. Also James Brown, I didn't find much very redeeming in the lyrical content of r-&-b, and too often it got a little stagnant for me musically. I guess I had the standard attitude most jazzers have had about r-&-b, particularly in that day."

Their successful run at Gatsby's led Al and Julio to believe that a recording contract might be waiting for them somewhere in Los Angeles. They went around knocking on doors but the time wasn't right. "That was in 1968 and there was a heavy soul thing going on, and on the other side there was a very heavy rock thing happening. I was still



a jazzer and they couldn't find any room in their stables for me."

Jarreau tried New York next. He had no trouble getting occasional appearances on network-television talk/variety programs, such as the Mike Douglas show, the David Frost show, and the *Tonight* show. But there was still no record contract. He therefore decided to retreat to the neutral territory of Minneapolis, where some rock promoters suggested that he put together a band and work as an opening act for local appearances of touring groups such as Steppenwolf and Canned Heat. Something clicked.

"That's when I first began writing, in 1971," Jarreau said, "and that was my first real group. The music was jazz, rock, and r-&-b influenced, but it went over with *their* audiences"—that is, with hard-rock fans.

Equipped with a new band and a new sound, Jarreau returned to L.A. to search again for a record company.

Still no takers. "People there in L.A. must have been convinced that I was a has-been already, because I had been beating on their doors since 1968." But this time he had more confidence in what he was doing. "There had been a *big* change in the music. I was absolutely open to all the influences I'd been exposed to. We couldn't sell it to anybody. It needed some time to jell, but I think it was too different and too sophisticated for most ears. It was more like what I'm doing now."

So it was back to working duo with Julio Martinez at L.A.'s Bla-Bla Café. Jarreau continued to reach further out, doing stream-of-consciousness vocal explosions, using wordless sounds to suggest instruments. All along he'd been singing to enthusiastic audiences, but a record contract was still the vital key to radio play and the resulting broad exposure he needed.

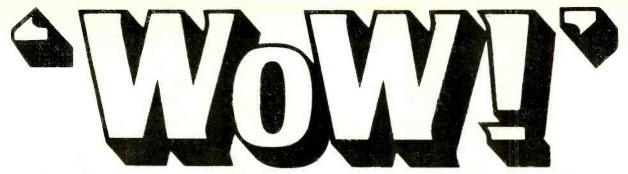
That hitherto elusive break came in 1975, on the closing night of an engagement at L.A.'s Troubadour club, where he'd been the opening act for jazz pianist Les McCann. Jarreau's manager, Pat Rains, had called everybody in town, trying to lure them down to hear Al. Finally, Moe Austin, a top Warner Bros. executive, came, heard, and was sufficiently impressed to sign Jarreau to a three-album contract. This resulted in, first, "We Got By" (Reprise MS 2224), then "Glow" (Reprise MS 2248), and, last and best, "Look to the Rainbow."

JARREAU is grateful for the careerbuilding support Warner Bros. has given him, not only recording the three albums but making it possible for him to go on the road. And the audiences have been out there, waiting for him. Perhaps it is his amazement that good things are finally happening for him that enables him to put so much of himself into his show, imbuing each performance with his sheer delight in what he is doing. Caught up in his own joy, Al Jarreau is captivatingly boyish on stage, leading a twenty-year-old fan to swear that "He brings out the mother in me; he makes me feel maternal."

Al's own explanation is that "people realize that everything I sing is from my heart and soul and that I am really there to give. And they are so willing to give back the warmth."

In these frigid, fuel-scarce days, that's no mean exchange.  $\Box$ 

Contributing Editor Phyl Garland, author of The Sound of Soul, teaches journalism at Columbia University and is a contributing editor and music critic for Ebony magazine.



# and other comments by stereo critics about Ohm loudspeakers.

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High Fidelity - Nov./1976

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#### Stereo Review/November 1973

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> Hi-Fi Stereo (Published in Germany) October/1974

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> The Complete Buyer's Guide to Stereo/Hi-Fi Equipment/1977

#### Comments about the Ohm H.

"Ohm managed to get prodigous bass response out of a small box without sacrificing efficiency. The high end is handled by conventional drivers and is everything one might ask from a speaker. Dispersion is excellent and the overall sound quality is exemplary."

The Complete Buyer's Guide to Stereo/Hi-Fi Equipment/1977

#### Comments about the Ohm D2.

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the C2, sacrificing only the ultra-wide high frequency response of the latter."

The Complete Buyer's Guide to Stereo/Hi-Fi Equipment/1977

#### Comments about the Ohm L.

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

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

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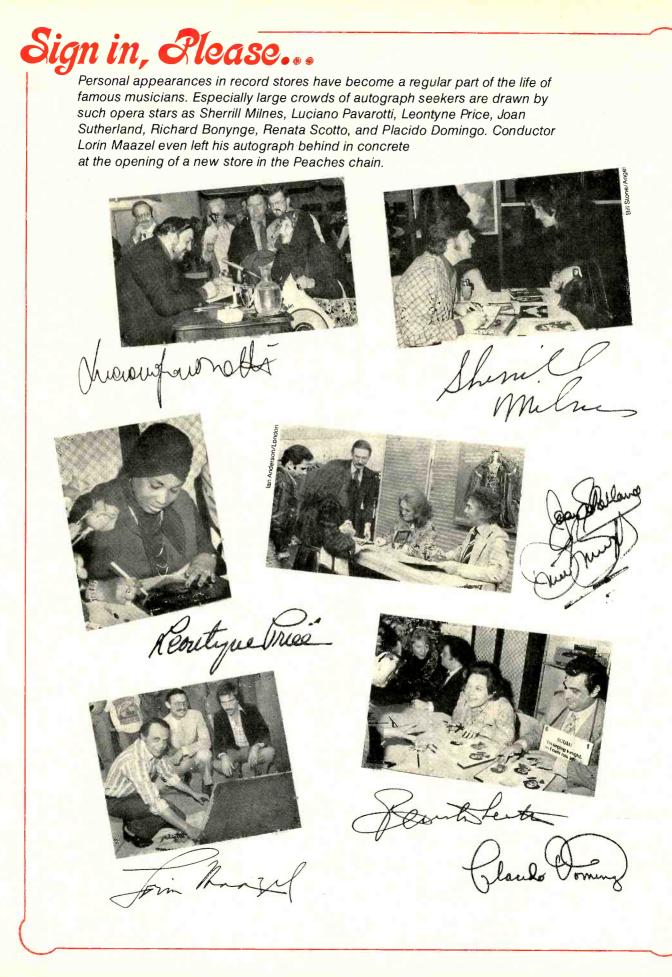
#### Comments about the Ohm E.

"Let me assure you, it handles Chopin and pretty well anything else from accordian to zither with equal dexterity. For anyone looking for 'just an ordinary speaker' at a modest cost as Hi-Fi speakers go — this could be it."

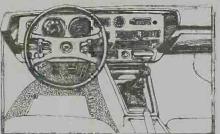
Canadian Stereo Guide/Winter 1974



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The new Toyota Celica. It's here now. A car which meets or exceeds all 1980 Federal fuel economy and safety standards. The latest in Toyota engineering advancements and wind tunnel refinements have produced an aerodynamic work of art. The Celica GT Liftback (pictured), GT and ST Sport Coupes.



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**OYOT** 

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# **Stereo Review's Record of the Year Awards for 1977**

in recognition of significant contributions to the arts of music and recording during the 1977 publishing year

VER the years—and this is the eleventh of them—of selecting and recognizing outstanding records, we have discovered some built-in characteristics of our method of choosing. Primary among them has been our habit—although it was not planned that way—of anticipating the marketplace, of banking our awards, especially in the pop field, as much on the future as on the present. Let me explain.

As stated often in the past, the STEREO RE-VIEW awards and honorable mentions are given for musical and technical excellance, for genuine contributions to the recorded literature. They have no basis in sales or commercial success of any sort. Since the awards are for artistic quality, they tend to go to those records that first show that quality in their respective artists—in other words, to the artists who have notyet made it big but who are very likely to do so in the near future. The marketplace catches up shortly afterward.

For example, you may remember that we gave awards to John Denver way back in 1970, to Carly Simon in 1971, and to Joni Mitchell on several occasions beginning in 1969. The records we honored may not have been their biggest hits, but they were artistically worthy efforts and the big hits fol owed as naturally as day follows dawning. Just to prove, though, that we are talking about art and not merely early harbingers of commercial success, I have to point out that a big winner in 1958 was Van Dyke Parks' "Song Cycle." a now-legendary record whose quality is exceeded only by its lack of sales over the years.

The foregoing should help explain why particularly fine records by Joni Mitchell, the McGarrigle Sisters, Emmylou Harris, Linda Ronstadt, and Southside Johnny and the Asbury Jukes have not been honored this year. Several of these a tists won awards just last year, and all have been honored previously. The real purpose of the awards is to call attention to excellence, and that attention has already been called. For somewhat similar reasons, the new RCA recording of George Gershwin's Porgy and Eess might have drawn more notice (it still got an honorable mention) had not the London recording of the previous year already brought home to us, through *its* excellence, the real and lasting virtues of that masterpiece of the American musical theater.

The voting, as usual, was done by the critics and staff of the magazine. Also as usual, the records to be considered were those of our publishing year, January through December 1977, which is to say those records that were reviewed in one of those issues or that could have been reviewed in one of them but got temporarily-overlooked. In the magazine business there is such a thing as "lead time," and records issued too late in the year therefore find themselves reviewed in the early issues of the following year.

His prings to the fore another built-in characteristic of our system: if we are not to create chaos we must stick by that publishing-year limitation. And so we ponor, on occasion, a record that is as much as a year old, and we put off to next year what looks like another sure winner because it arrived too late for us to review it. There were examples of both in our voting this year, and though we claim no virtue for this aspect of our system (other than that of not forgetting quality just because time has passed), we look upon it as a sort of trade-off for our early discoveries of good things to come. And we honestly feel that we have the better of the trade.

-James Goodfriend, Music Editor

# Record of the Year Awards for 1977

SELECTED BY THE EDITORIAL STAFF AND CRITICS FOR THE READERS OF STEREO REVIEW

> Certificate of Merit awarded to

# **Richard Rodgers**

for his outstanding contributions to the quality of American musical life

-DitC-

## **Honorable Mentions**

ANNIE (Charles Strouse–Martin Charnin). Original Broadway Cast. COLUMBIA PS 34712.

ARRIAGA: Symphony in D Major; Overture to "Los Esclavos Felices" iJesús López Cobos cond.). HNH 4001.

IACKSON BROWNE: The Pretender. ASYLUM 7E-1079.

IOSÉ CARRERAS: Aria Recital. PHILIPS-9500 203.

ELGAR: Cello Concerto; Enigma Variations (Jacqueline Du Pré, cello; Daniel Barenboim cond.). COLUMBIA M 34530.

FAURÉ: Complete Songs (Elly Ameling, soprano; Gérard Souzay, saritone; Dalton Baldwin, piano). CONNOISSEUE SOCIETY CS 2127/8.

GERSHWIN: Porgy and Bess (Houston Grand Opera, John DeMain cond.). RCA ARL3-2109.

DEXTER GORDON: Homecoming. COLUMBIA PG 34650. HAYDN: Twenty-four Minuets (Philharmonia Hungarica, Antal Dorati cond.). LONDON STS-15359/60.

GEORGE JONES: I Wanta Sing. EPIC PE 34717.

TEDDI KING: Lovers and Losers. AUDIOPHILE AP 117.

MAHLER: Symphony No. 3 (Marilyn Horne, mezzo-soprano: Chicago Symphony Orchestra and Chorus, James Levine cond.). RCA ARL2-1757

MASSENET: Esclarmonde (Joan Sutherland, soprano; Giacomo Aragall, tenor; Richard Bonynge cond.). LONDON OSA-13118.

MESSIAEN: Vingt Regards sur l'Enfant Jésus (Michel Béroff, piano). CONNOISSEUR SOCIETY CS2-2133.

DAVID MUNROW: *Music* of the *Gothic Era* (Early Music Consort of London). DEUTSCHE GRAMMOPHON ARCHIV 2710 019.

CHRISTOPHER PARKENING: Guitar Music of Two Centuries. ANGEL S-36053. GRAHAM PARKER AND THE RUMOUR: Heat Treatment. MERCURY SRM-1-1117.

BONNIE RAITT: Sweet Forgiveness. WARNER BROS. BS 2990.

SIDE BY SIDE BY SONDHEIM (Millicent Martin, Julia McKenzie, David Kernan, vocals; Ned Sherrin cond.). RCA CBL2-1851.

10cc: Deceptive Bends. MERCURY SRM-1-3702.

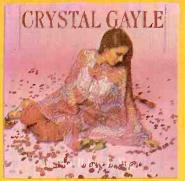
B. J. THOMAS. MCA-2286.

RICHARD THOMPSON: Live! (More or Less). ISLAND 9421.

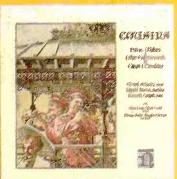
WAGNER: Orchestral Excerpts (Royal Philharmonic Orchestra, Leopold Stokowski cond.). RCA ARL1-0498.

WEILL: Theater Pieces; Violin Concerto (London Sinfonietta, David Atherton cond.). DEUTSCHE GRAMMOPHON 2709 064.

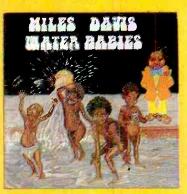
PHIL WOODS SIX: Live from the Showboat. RCA BGL2-2202.



CRYSTAL GA¥LE: We Must Believe in Magic. UNITED ARTISTS UA-LA771-G.



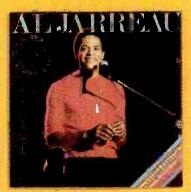
COUSINS: Polkas, Waltzes, and Other Entertainments (Gerard Schwarz, cornet; Ronald Barron, trombone; Kenneth Cooper, piano). NONESUCH H-71341.



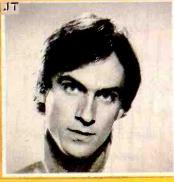
MILES DAVIS: Water Babies. COLUMBIA PC 34396.



DVORAK: Piano Quintet in A Major, Op. 81 (Emanuel Ax, piano; Cleveland Quartet). RCA ARL1-2240.



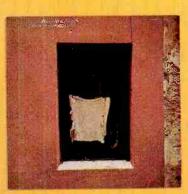
AL JARREAU: Look to the Rainbow. WARNER BROS. BZ 3052.



JAMES TAYLOR- JT. COLUMBIA IC 34811.



GRANADOS: Goyescas (Alicia de Larrocha, piano). LONDON CS-7009.



EGBERTO GISMONTI: Dança das Cabeças. ECM 1089.



DUKAS: La Péri. ROUSSEL: Symphony No. 3 (New York Philharmonic, Pierre Boulez cond.). COLUMBIA M 34201.



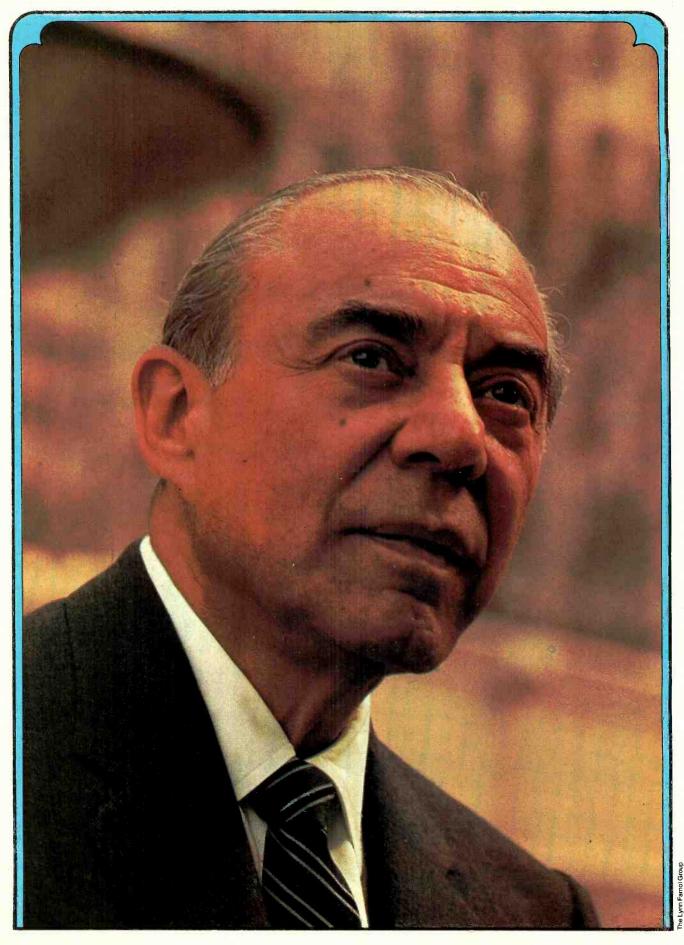
THOMSON: The Mother of Us All (Santa Fe Opera Company, Raymond Leppard cond.). NEW WORLD NW 288/9.



VIVALDI: The Four Seasons, Op. 8, Nos. 1-4 (Simon Standage, violin; English Concert, Trevor Pinnock cond.), CRD 1025.



STEVIE WONDER: Songs in the Key of Life. TAMLA T13-340CZ.



If there is anyone who knows the musical theater, its art, its craft, its dreams, its realities, its expectations thoroughly and completely, it is



RICHARD RODGERS is—or wants to appear to be—a far simpler man than you or I would ever suspect. At seventy-five he is the dean of the American musical theater, a prime determinant, for that matter, of the very *nature* of the American musical theater, the composer of dozens of shows we all remember and hundreds of songs we can never forget, a collector, for many years, of hon-

ors and of responsibilities, a man who has made a great deal of money and given a great deal of it away. He takes it all as the most natural stream of occurrences, the career almost foreordained, the success a combination of background, labor, and the blind chance of public taste. Is he holding something back, or was the world really that much more simple, direct, and honest when he built his career than it is today?

T depends on what we mean by "the world." For Rodgers the world has always revolved around music-American music, theater music. "My mother played the piano beautifully,' Rodgers says. "She was the best sight reader I ever knew. My father loved to sing. They used to play and sing before and after dinner. They used to go to all the musical shows and then buy the score, and that was what they played and sang. I was around all the time. That was my kind of music." Rodgers speaks today with difficulty, the result of a serious larynx operation, but clearly and with no lack of conviction. In the view of himself that he offers there was no other possible career but the one that was chosen. If there is in that just a hint of the directness and simplicity of plot of the musical stage, then perhaps that itself is a clue to the man.

Unlike that of many of America's songwriters, Rodgers' childhood background was not one of abysmal poverty and the Lower East Side of New York City, but the upper-middle-class life of a doctor's family considerably farther uptown. And the cultural background was not the European one of the immigrant, but that of the contemporary American scene. "My father was from Missouri; my mother was born in New York. I grew up on the corner of Morris Park; that's 120th Street, east of Lexington Avenue. We moved later to 86th Street, and when I graduated from public school there, I went to De Witt

Clinton High School-which I didn't like very much." And then he went to prestigious Columbia University. Why? "There was an important thing there: the varsity shows. That was my main reason for wanting to go to Columbia, because I wanted to write the varsity show. It seems silly now, but it was very important then." It was, and he did, the first Columbia freshman ever to do so. His lyric collaborator was a Columbia graduate (he was seven years older than Rodgers) named Lorenz M. Hart, and the show also contained two songs with lyrics by another Columbia graduate (also seven years older) named Oscar Hammerstein II.

Rodgers wrote his first songs at the age of fourteen, his first musical score at the age of fifteen, his first published songs at seventeen, and his first professional full score, Poor Little Ritz Girl, with lyrics by Hart, also at seventeen. The show played in Boston and Atlantic City, had a New York run of 119 performances, and got a considerable number of favorable reviews in the New York newspapers. That's quite an accomplishment for a boy just about to enter his sophomore year in college, even though, for the New York presentation, a number of the Rodgers and Hart songs were scrapped and replaced by others by the more experienced

By James Goodfriend

team of Sigmund Romberg and Alex Gerber. Perhaps none of Rodgers' songs from that score can be said to be in the public consciousness today (none of the Romberg songs are either), but the year before, in 1919, a Rodgers and Hart song was interpolated into a musical comedy by Hale and Lynn called A Lonely Romeo. The song was Any Old Place with You. It was Rodgers and Hart's first published song together, and it can be said to be part of the public consciousness today—if not their first smash hit, then, across the years, their first "standard."

HERE is a recognizable personality in that song, the personality of Rodgersand-Hart as an entity rather than that of two separate people. The structure is old-fashioned: verse, chorus, verse (with new lyrics), chorus (with new lyrics but the same tag line). The chorus is short, only sixteen measures plus a two-measure tag at the end, and each of its four lines begins with the same melodic pattern, transposed, in the second and fourth, to different harmonic areas. The melodic figuration of the tag line appears no place else in the song. In all, the song is simple but totally professional, the various structural characteristics match each other perfectly (the chorus had to be short because of the repeated verse; the tag had to be melodically distinctive and different because of the identical line openings; and so on), and the effect is, to coin a

....My Romance • The Sweetest Sounds • Slaughter on Tenth Avenue • Soliloquy • If I Loved You • Oklahoma • Thou Swell

# RODGERS....

"Rodgers and Hart mastered what for centuries more 'serious' composers had not: the total integration of music, meaning, and the natural rhythm and flow of the English language."

word, "catchy." (Could Sigmund Romberg ever be said to have written a "catchy" tune?) The song also contains, in its "catalog"-type lyrics, what may be the first of those typical, outrageous lines that we associate with Larry Hart:

I'll go to hell for ya Or Philadelphia, Any old place with you.

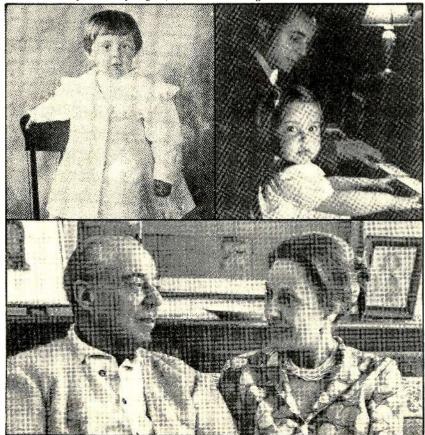
And thus the collaboration that marked the first of what might be called Rodgers' three compositional periods-the second was with Hammerstein, the third with a variety of lyricists including himself-was set. Rodgers has been almost three different composers during his career, depending upon his collaborator. "I knew that I couldn't write the same sort of song for Oscar's lyrics as for Larry's," he savs. And so, obviously, he didn't. But just what are the implications of that? In fact, did the words come first, or the music? The answer to that latter question is yes-or no. "In most cases I wrote a tune to fit the situation and the performer who would be singing the song in the show." Rodgers then gave Hart the tune and Hart wrote lyrics. Was it the same with Hammerstein? "Just the opposite. Oscar wanted the freedom to write his lyrics first." The music came afterward. But in either event there was the commitment to write music that would fit the kind of lyric Rodgers knew he would get, that would, in essence, determine the musical style. Isn't that a terribly profound commitment? "Yes," says Rodgers, meaning "I suppose so."

Rodgers, of course, has written lyrics himself (No Strings in 1962, which included the song The Sweetest Sounds). "I enjoyed writing lyrics," he says, "but it's very hard work. I don't know anyone who writes lyrics quickly. It's a mosaic kind of work: you get an idea and then move the pieces around. It's not like composing. You don't write one note at a time, you write whole phrases." Well, what about composing, then? How much actual "composing" does a songwriter, even a writer for the musical stage, actually do? For example, we know that in the Broadway theater the orchestrations are invariably done by someone else, a specialist in orchestrations (even Leonard Bernstein's West Side Story was orchestrated by other hands), but what about the harmonies, say, as they finally appear in the printed score? "The essential harmonies are mine," says Rodgers. "The simplification of them in the sheet music is the work of the editor at the publishing house. I wouldn't know how to get the chord I want into the simplified form that could be played by a fourteenyear-old girl. It's a very special talent. I write originally on three stavesmelody, harmony, and bass. And usually my originals for piano can't be played by two hands. They're too difficult. There's too much going on."

Rodgers' work, as mentioned, can be divided into three separate periods, and it is no disrespect to the man to suggest that most of his best work came out of the first two. Some stage composers are meant to work alone, some need collaboration. Some struggle for years before finding the *right* collaborator. Rodgers was fortunate in finding both his natural collaborators right at the beginning, so that after the unfortunate death of the first, he did not have to search very long for a second. With Hammerstein's passing, though, in 1960, Rodgers was left very much on his own. True, there were fine lyricists around, but musical collaborations, like marriages, don't necessarily work just because both parties possess fine qualities. There has to be a spark.

There were certainly a lot of sparks with Hart. Among the shows they wrote, or partially wrote, together were Dearest Enemy, two different Garrick Gaieties, The Girl Friend, Peggy-Ann, A Connecticut Yankee. Present Arms. Spring Is Here, Heads Up!, Simple Simon, Evergreen, Jumbo, On Your Toes, Babes in Arms, I'd Rather Be Right, I Married an Angel, The Boys from Syracuse, Too Many Girls, By Jupiter, and, of course, Pal Joey, the last of which drew the (today) tremendously comic criticism, "Mr. Hart's lyrics are urbane to the point of smuttiness." The titles are perhaps more familiar the closer they are to the present (the last, By Jupiter, was 1942; Hart died in 1943). But it was, with only few exceptions, the individual songs rather than the scores that stuck in the mind. With the shows listed above (and in the same order), one can match up Here in My Arms, Manhattan and Mountain Greenery. The Blue Room. A Tree in the Park and Where's That Rain-

Clockwise, from left: Richard Rodgers at age one; Rodgers with daughter Mary, now composer Mary Rogers; Mr. and Mrs. Rodgers at home in Connecticut in 1967.



bow, My Heart Stood Still and Thou Swell, You Took Advantage of Me, With a Song in My Heart, A Ship Without a Sail, Ten Cents a Dance, Dancing on the Ceiling, Little Girl Blue and The Most Beautiful Girl in the World, There's a Small Hotel and Glad to Be Unhappy, Where or When and My Funny Valentine, I'll Tell the Man in the Street, Falling in Love with Love and This Can't Be Love, I Didn't Know What Time It Was, Everything I've Got and Wait Till You See Her, and Bewitched, Bothered and Bewildered. These are only instances; there were more, from those and other shows, and from films. Short or long version, it is an astonishing list not just of hits but of real musical-lyrical achievements.

T has been the fashion for some years now to say that Rodgers and Hart were better than Rodgers and Hammerstein. It isn't true. But Hart called forth from Rodgers (remember that commitment) a certain kind of song—clever, catchy, immediate, direct, and easily removable from its original dramatic context—a kind that Hammerstein never could. It was a less sophisticated musical stage then. Certain songs could be, and were, interchanged from one show to another (try switching around anything from South Pacific and The Sound of Music) without ill effect, because the real integration of book, song, and dance didn't come fully until later, the first attempt being *Pal Joey*. So the songs, to a large extent, had to fend for themselves. A lot of good stuff went down the drain when the shows closed, but a lot of mediocre stuff, needed to fill out the score, was also mercifully laid to rest. The best songs, though, had an immediate and lasting life of their own apart from their shows.

And the best songs were *really* good. One still does not know which to admire more, the exuberance and inner rhymes of Hart's

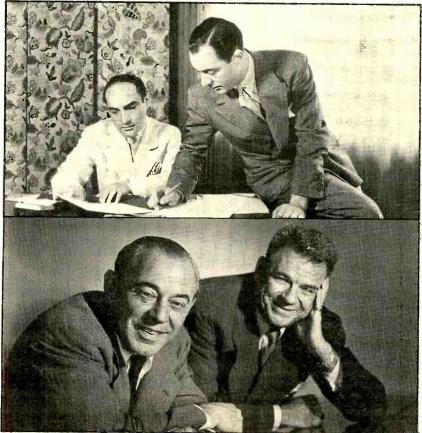
All of it lovely, all of it thrilling, I'll never be willing to free her, When you see her, You won't believe your eyes

or the ecstatic, almost airborne music that Rodgers wrote for the situation and the singer without knowing what the lyrics were going to be. Can one express an admiration for

My funny valentine, Sweet comic valentine, You make me smile with my heart.

without also admiring the strange (for an American show song), haunting, minor-key melody that Rodgers provided for it? Which is more impressive, the cleverness of the very conception of a

Two of the greatest songwriting teams Broadway, or the world, has ever heard from: Richard Rodgers and Lorenz Hart and Richard Rodgers and Oscar Hammerstein II.



love song called I'll Tell the Man in the Street or the joyful, optimistically rising melodic line that begins it and dominates it throughout? The point is that, at their best, you can't take the songs apart. Rodgers and Hart mastered what for centuries more "serious" composers had not: the total integration of music, meaning, and the natural rhythm and flow of the English language. Rodgers, by the way, was by no means unaware of that "more serious" music. He had left Columbia after his sophomore year and enrolled in the Institute of Musical Art (now Juilliard) where he spent his final collegiate years. It didn't seem to spoil him.

VITH the hindsight of years we recognize how radical a change marked the first of the Rodgers and Hammerstein collaborations, a change not only in Rodgers' style and intent but in the very nature of the American musical theater as it had existed to that time. Oklahoma was the first of the truly integrated musicals, integrated in the sense that book, lyrics, music, and dance were woven together to form an artistic whole. Earlier attempts to do anything of the sort were usually put down as "book shows," pretentious intellectual exercises by impractical nonprofessionals. But Oklahoma was different; it worked. It also wasn't hurt at all by a string of "hits" in the first scene-Oh, What a Beautiful Mornin'. The Surrey with the Fringe on Top, Kansas City, I Cain't Say No, Many a New Day, and People Will Say We're in Love, one after the other-for which one might well have to go back to the opening scene of Mozart's Marriage of Figaro to find a comparison.

It is fascinating, though, to read the contemporary reviews of Oklahoma. They were complimentary, of course, even ecstatic at times, but one keeps on finding comments like "After a mild, somewhat monotonous beginning, it suddenly comes to life around the middle of the first act" (New York Post); "It is inclined to undue slowness at times and monotony creeps in . . ." (New York World Telegram); "nothing much in the way of a book . . . (Time); and "reminds us at times of a good college show" (the New Republic). Some of the more perspicacious critics noticed that the show was "different," but none made what would today be the logically expected state-ment: "Mr. Rodgers' songs, while of the highest possible quality, are categorically different from those he wrote before with Lorenz Hart." It just wasn't so obvious then.

But it often takes years before works of art are properly understood (Bee-

# RODGERS....

"The public, he feels, is still waiting and anxious for new musical comedies."

thoven could swear to that), and one picks on the critics only because their views-as opposed to the reactions of mere members of the audience-got put down in black and white for posterity to gloat over. Still, it is unsettling to compare bits of Brooks Atkinson's New York Times review of Pal Joey in tertaining musical comedy out of an odious story, Pal Joey is it . . . some scabrous lyrics to one of Rodgers' most haunting tunes, Bewitched. . . . Although it is expertly done, can you draw sweet water from a foul well?"with the same man's comments about the revival twelve years later: "... no one is likely to be impervious to the tight organization of the production, the terseness of the writing, the liveliness and versatility of the score, and the easy perfection of the lyrics. . . Brimming over with good music and fast on its toes, it renews confidence in the professionalism of the theatre. . . ." And two more, on the down side, from the first London production in 1954: ". . . something of a dramatic curio . . . a transition piece, its experimental quality is some excuse for its extreme ugliness. . . The sordid story is chiefly redeemed by Miss Carol Bruce, an actress of character. . . . She has the best song, Bewitched, and she puts it across for a great deal more than its tasteless words are worth . . .'' (London Times); and ". . . carefully calculated to have no charm whatever. . . . Far from being a love philtre, Pal Joey is an emetic. . . . Good tunes would have helped, so would a good comedian, so would some singing voices . . .' (Punch). It was perhaps such reviews that scared Rodgers away from further "tastelessness." But it is possible to be mature and musically sophisticated without being "tasteless," and that is the path Rodgers and Hammerstein pursued, even if few people really noticed it in all its aspects.

HE point about Oklahoma and, to a large extent, the shows that followed it, is a dual one. First, the songs are really a part of the story and, perhaps to a far greater degree than in any of his preceding works (Rodgers, perhaps, to the

contrary), expressive of the personalities of the characters that sing them. Most of them are only with difficulty removable from context. Yes, People Will Say We're in Love can be abstracted as an anytime, anywhere love song. But the public that made a hit out of The Surrey with the Fringe on Top was singing, humming, and whistling about a conveyance that had long since passed from the general American scene, and in singing about it they were, in essence, re-creating the time, the place, and hence the show itself over again in their minds. The second part of the point is that while the lyrics were more homespun, more folksy, more sentimental, more extra-New York-regional than anything Hart could or would have turned out, the music was more sophisticated, more varied, "bigger" than what Rodgers had done before. The "catchiness" was gone, replaced by something else. The opening melodic phrase of Oh, What a Beautiful Mornin' is a musical statement of considerable, almost monumental sweep (try it as the opening theme of a lyrical symphony). "Well," says Rodgers, "with the situation of a cowboy admiring the view it was hard to avoid that." Oh. Of course. But you have to be able to create it too. Only geniuses do great things because they can't avoid them.

KODGERS had many hit songs with Hammerstein, perhaps-and perhaps partly because of the quite incredible growth of the record industry and musical broadcasting-even more than he had with Hart. But what sticks in the mind, because of their continuing integration of story and song, are whole scores rather than individual songs. Not that Younger Than Springtime or If I Loved You are not great ballads on their own, but thinking of them somehow brings back to mind virtually the entire scores, settings, and actions of South Pacific and Carousel. The inevitable catalog is de rigueur: Oklahoma! (2,212 performances on its first run), Carousel, the film State Fair, Allegro, South Pacific, The King and I, Me and Juliet, Pipe Dream, Flower Drum Song, The Sound of Music. The individual hit songs are almost too numerous to mention, and besides, those that were not hits the first time around are there to be rediscovered in revival. The King and I, as Rodgers says, is a bigger hit today in its revival (and, expectedly, getting better notices) than it was in its original production.

The sugar content of Hammerstein's lyrics could get a bit high at times, but that is the risk in the style in which he chose to write. No one, however, could have set those lyrics more sympathetically or tastefully than Rodgers. If there was a real flaw in the Rodgers and Hammerstein collaboration it lay in their concept of regionalism and in the predictability that came out of it. The exploring eye moved about and, finding a usable milieu, produced not something real drawn from that milieu, but the Rodgers-and-Hammerstein-musical of the Pacific War theater, the traveling circus, the Orient, the low life of Cannery Row, or the inhabitants of Chinatown, San Francisco. It was superimposed on the subject to such an extent that it ultimately became a frozen technique to be analyzed and used by others. And others did. Still, it takes nothing away from the concrete accomplishments of the shows themselves. Who else but Rodgers and Hammerstein could have touched the public heart so strongly with a quasi-operatic scena like Soliloguy that it became a pop hit? Who else could have so moved the American public that people would themselves sing of a mythical island, a million miles away, the like of which none could see and few really imagine? That is magic of a sort—of quite a sort.

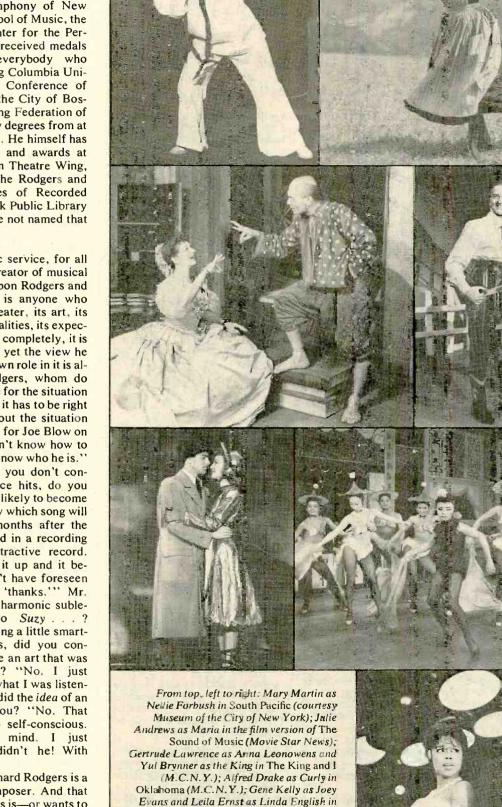
AFTER Hammerstein's death in 1960, Rodgers went it alone, testing himself with both lyrics and music for additional songs for a new version of the film State Fair, and then going all the way with the musical No Strings. The latter was, at least, a succes d'estime (it got both a Tony and a Grammy), and maybe a little more than that. It was also, probably, a more adventurous effort than Hammerstein would have agreed to. It was (Rodgers' contribution, anyway) masterly, but it didn't fly. Stephen Sondheim became Rodgers' partner for Do I Hear a Waltz, Martin Charnin for Two by Two, and Sheldon Harnick for the short-lived Rex. Of all the reasons suggested for the failure of the last, no one ever put forth the idea that it was the songs that were at fault. But there was none of that old spark. Sondheim, Charnin, and Harnick, excellent craftsmen all, were of a different generation from Rodgers'. Their world was a very different place from the one that Rodgers staked out for himself at so early an age and, to a great extent, continues to inhabit. The public, he feels, is still waiting and anxious for new musical comedies. Success is a matter only of finding the right people to write, the right actors to play. But is it so? Is the public, apart from the nostalgia crowd, really waiting for anything of the sort?

No mention of Rodgers would be complete without itemizing some of those many honors and responsibilities mentioned above. He is a director, a trustee, or a member of the American Theatre Wing, Barnard College, the National Institute of Arts and Letters, the Philharmonic Symphony of New York, the Juilliard School of Music, the John F. Kennedy Center for the Performing Arts. He has received medals from very nearly everybody who awards them, including Columbia University, the National Conference of Christians and Jews, the City of Boston, and the Advertising Federation of America, and honorary degrees from at least seven institutions. He himself has endowed scholarships and awards at Juilliard, the American Theatre Wing, and elsewhere. And the Rodgers and Hammerstein Archives of Recorded Sound in the New York Public Library at Lincoln Center were not named that for nothing.

DUT for all his public service, for all his honors, it is as a creator of musical theater that we look upon Rodgers and admire him. If there is anyone who knows the musical theater, its art, its craft, its dreams, its realities, its expectations thoroughly and completely, it is Richard Rodgers. And yet the view he offers of it and of his own role in it is almost naïve. Mr. Rodgers, whom do you write for? "I write for the situation and the character, and it has to be right for the way I feel about the situation and the character. Not for Joe Blow on Seventh Avenue. I don't know how to write for him. I don't know who he is." Mr. Rodgers, even if you don't consciously try to produce hits, do you know which songs are likely to become hits? "How can I know which song will become a hit eight months after the show opens? Some kid in a recording session makes an attractive record. Somebody else picks it up and it becomes a hit. I couldn't have foreseen that. I can only say 'thanks.'" Mr. Rodgers, about those harmonic subleties you wrote into Suzy ...? "Maybe I was just being a little smartalecky." Mr. Rodgers, did you consciously try to produce an art that was specifically American? "No. I just wrote in the style of what I was listening to." Mr. Rodgers, did the idea of an art form occur to you? "No. That would have been too self-conscious. Never crossed my mind. I just wrote. . . . '' Yes, didn't he! With genius.

And that is why Richard Rodgers is a great and original composer. And that is why Richard Rodgers is—or wants to appear to be—a far simpler man than you or I would ever suspect.  $\Box$ 

(Continued overleaf)



(M.C.N.Y.); Alfred Drake as Curly in Oklahoma (M.C.N.Y.); Gene Kelly as Joey Evans and Leila Ernst as Linda English in Pal Joey (M.C.N.Y.); Pat Suzuki as Linda Low with the dancing ensemble in Flower Drum Song (Lynn Farnel Group); Diahann Catrol as Barbara Woodruff and Richard Kiley as David Jordan in No Strings (Lynn Farnol Group).



BEN BAGLEY, the intrepid and indefatigable retriever of lost songs by the masters of musical comedy, has been assembling the lesser-known works of Rodgers and Hart ever since 1961, when his first "Rodgers and Hart Revisited" album came out on Spruce Records. It is now available on Bagley's own Painted Smiles label (PS 1341), so one can still delight in such otherwise forgotten or half-forgotten songs as At the Roxy Music Hall, This Funny World, the opening number of the Garrick Gaieties, and a dozen others. A second volume (PS 1343) restored another fourteen items, and with the recent release of Volumes III and IV the Painted Smiles catalog holds a total of fifty-three uncelebrated Rodgers and Hart songs.

One might suppose that by this time Bagley and his crew would be scraping the absolute bottom of the barrel, but not so. Though he had to go to a great deal of trouble to track down some of the songs in these collections, the impression one gets after hearing them is that most of what Rodgers and Hart cut out of their shows is a good deal better than what many other songwriters leave in. Of course, not everything on these discs sticks to the ears as well as the hits that made these collaborators famous, but very little really falls flat either. And besides the songs themselves we have the producer's witty, gossipy, and informative (though sometimes mischievously misleading) notes. It all adds up to a healthy double dose of entertainment.

OR these latest "Rodgers and Hart Revisited" albums, Bagley lives up to his reputation for being able to persuade the unlikeliest performers to join his team. As the interpreter of *I'm a Fool*, *Little One, He Was Too Good to Me*, and *Mornings at Seven*, Estelle Parsons is every bit as compelling as she is currently on Broadway bulldozing a theater-full of "pupils" in *Miss Margarida's Way*.

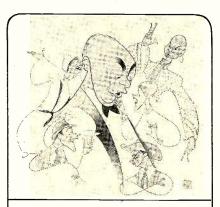
Lynn Redgrave is no slouch as a singer either, whether solo or in duets. She's paired with Anthony Perkins in Someone Should Tell Them (inexplicably excised from A Connecticut Yankee in 1927) and with Arthur Siegel in The Letter Song (originally written for Jeannette Mac-Donald and Maurice Chevalier in Love Me Tonight but scissored out of the final version of that film).

Anthony Perkins is an old standby in the "Revisited" series, and he sings attractively no matter what the assignment—a comic ballad from By Jupiter originally written for Ray Bolger, a romantic one written for the film of The Boys from Syracuse, or the touching I'm Talking to My Pal, clipped out of Pal Joey by director George Abbott because he considered it too downbeat.

Add in the pleasant, unaffected voice of Nancy Andrews, the still unstrained, true baritone of Johnny Desmond, and the extraordinary Blossom Dearie—the only woman I know who can sing in baby



talk without making me physically ill and you'll have some idea of the variety of talent lavished on this retrieved material. Desmond is particularly winning in Now That I Know You from Two Weeks with Pay, a Broadway-bound revue (to which Cole Porter, George Gershwin, Harold Arlen, and Johnny Mercer also contributed) that never made it to open-



#### **BASIC RODGERS**

- The Boys from Syracuse. Nelson, Cassidy, Osterwald. Columbia Special Products COS 2580.
- Carousel. Original Broadway Cast. MCA 2033E.
- The King and I. Original Broadway Cast. MCA 2028E.
- Oklahoma! Original Broadway Cast. MCA 2030E.
- Pal Joey. Segal, Lang. COLUMBIA SPECIAL PRODUCTS ® COL 4364. The Sound of Music. Original Broad-

way Cast. COLUMBIA S 32601. South Pacific. Original Broadway

- Cast. Columbia @ S 32604.
- Victory at Sea, Volume 1. Orchestra, Bennett cond. RCA ANL1-0970.

Many of the shows with Hart are not now, or were not ever, available as complete scores. Good selections of many of the songs, though, may be found on the following records.

- Ronny Whyte and Travis Hudson: It's Smooth, It's Smart, It's Rodgers and Hart. MONMOUTH-EVER-GREEN 7069.
- Ben Bagley's Rodgers and Hart Revisited, Volumes I, II, III, and IV. PAINTED SMILES 1341, 1343, 1366, and 1367 (see review herewith).

ing night. And let's not forget Elaine Stritch, who makes the most of a winsome sentimental trifle of the Twenties called *A Little Souvenir*.

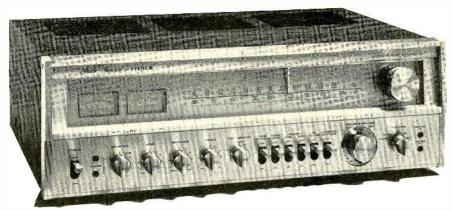
There are some weak entries, to be sure, but they are rare enough considering the generous length of the two programs. Most of the lyrics radiate that special Hart brand of blithe charm, and the melodies sparkle. The deft Norman Paris, whom Bagley frequently used as an arranger, died before these albums were put together, but his replacement, Dennis Deal, turns out to be a real find. Another fine arranger, Bub McCreery, is responsible for the Grand Finale at the end of Volume IV, which is a nonstop medley of Rodgers and Hart standardsfrom The Lady Is a Tramp to Bewitched, Bothered, and Bewildered-sung by Nancy Andrews and Bagley's choral troupe, The Men and The Women.

Still another Painted Smiles Rodgers and Hart special is in preparation even now—a recording of the complete score of their Forties hit *Too Many Girls*—and Bagley says there are enough worthy rarities left to make at least two more "Revisited" volumes. Judging from the ones he's given us so far, they'll be well worth their price. —Paul Kresh

BEN BAGLEY'S RODGERS AND HART REVISITED, VOLUME III. Nancy Andrews, Blossom Dearie, Johnny Desmond, Estelle Parsons, Anthony Perkins, Lynn Redgrave, and Arthur Siegel (vocals); vocal and instrumental accompaniment, Dennis Deal arr. and cond. Medley-It's a Lovely Day for a Murder/Mornings at Seven/How's Your Health?; Someone Should Tell Them; Damsel Who Done All the Dirt; Life Was Monotonous; Why Do It?; I'm a Fool, Little One; The Letter Song; We'll Be the Same; Medley—Where the Hudson River Flows/I'd Like to Hide It/The Hermits: Are You My Love?; Nothing to Do but Relax; He Was Too Good to Me; Women; Who Are You?; Medley-It's Just That Kind of a Play/Sky City/I've Got to Get Back to New York. PAINTED SMILES PS 1366 \$7.98.

BEN BAGLEY'S RODGERS AND HART REVISITED, VOLUME IV. Elaine Stritch, Nancy Andrews, Blossom Dearie, Johnny Desmond, Anthony Perkins, and Lynn Redgrave (vocals); Arthur Siegel (piano); vocal and instrumental accompaniment, Dennis Deal arr. and cond. Medley-Knees/It Must Be Heaven/Me for You; I Love You More Than Yesterday; I Can Do Wonders with You; Queen Elizabeth; Now That I Know You; Medley-Did You Ever Get Stung?/A Twinkle in Your Eye/How to Win Friends and Influence People; Medley—Take and Take and Take/I'd Rather Be Right/Sweet Sixty-five; I'm Talking to My Pal; Fool Meets Fool; A Little Souvenir; You're the Mother Type; Moon of My Delight; Grand Finale. PAINTED SMILES PS 1367 \$7.98.

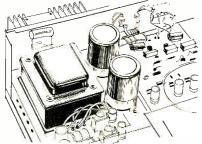
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# STEREO REVIEW'S SELECTION OF RECORDINGS OF SPECIAL MERIT BEST OF THE MONTH





## The Schoenberg Quartets: Have They Mellowed Over the Years?

OLUMBIA has just presented us with the five Schoenberg string quartets in excellent new recordings by the "new" Juilliard Quartet. "Five" because, in addition to the usual numbered four, there is also an early Brahmsian work—played here with vigor and enthusiasm—that shows Schoenberg's mastery of the late-Romantic tradition. With two other string pieces included-the sextet Verklärte Nacht and the late trio-Schoenberg's string music contains the history of his stylistic development in capsule form: the early Classic/Romantic work; the Wagnerian sextet; the highly original, long, intense, onemovement First Quartet; the Second Quartet, with voice (!), which moves from late Romanticism to atonality in the course of its length; the stuttering, neo-Classical, twelve-tone Third; the matured, thematic, and very dramatic Fourth; and finally the truly "far-out" late trio.

The earlier Juilliard Quartet Schoenberg set—a landmark in recording history—dates from 1951-1952. Since that time recordings and, one might say, the quartets themselves (or, at least, how we tend to deal with them) have changed. *Mellowed* would be the word. Schoenberg always believed that he was squarely in the great Classic-Romantic tradition, and these once-

The Juilliard Quartet, top to bottom: Joel Krosmck, Earl Carlyss, Samuel Rhodes, and Robert Mann outrageous quartets now seem to substantiate this contention. Even the early works, once the cause of riots, now seem thoroughly Romantic, tame, and acceptable in the traditional way (in an essay reprinted in the program booklet Schoenberg implies that since audiences already considered his early late-Romantic works as outrageous he saw no reason not to pursue his demon even further into the forbidden realms of atonality!).

To characterize the numbered quartets briefly: the First is a forty-minute work in a single movement—intense, elaborately worked out, and almost impossible to grasp as a whole. The Second, in spite of stylistic inconsistency, is brilliant and moving—the best of the four. The Third is too studied, too busy, too undramatic. The Fourth is truly a traditional work; despite its modernisms (or perhaps because of them) it is full of shape and drama.

The Juilliard Quartet has also mellowed. There is continuity in the person of the first violinist, Robert Mann; all the others are different, younger faces, but they are as excellent musically as those they have replaced. The essential romanticism of the group is more to the fore now, but the old energy is a bit relaxed and things like long line, dynamic ebb and flow, and dramatic or emotional contour have become more important.

And, finally, since it is being seriously argued, the question should be asked: Are these Schoenberg quartets the great modern successors to Beethoven's? For myself, I don't think I'll ever be able to get all the way through the First without a bit of wool-gathering, and even the Juilliard can't make me love the Third. But the Second and the Fourth are to me great quartets, and I have no doubt that these performances are very close to the last word on all four. — Eric Salzman

SCHOENBERG: The Five String Quartets. Juilliard Quartet; Benita Valente (soprano, in Quartet No. 2). COLUMBIA M3 34581 three discs \$23.98.

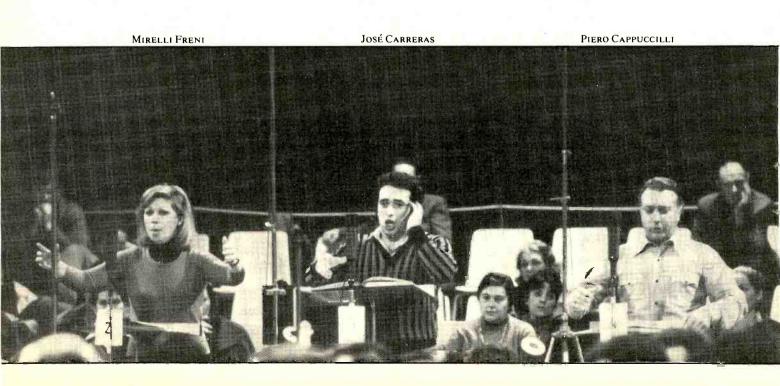
## Simon Boccanegra: A Superbly Conducted, Splendidly Cast New Recording

**G**IUSEPPE VERDI'S Simon Boccanemière in Venice, but the composer did not believe that the opera should be permitted to slip into oblivion. Many years later, between Aïda and Otello, he substantially revised both the libretto and the music with the enthusiastic help of Arrigo Boito. The revised version, which was introduced at La Scala in 1881 with Victor Maurel and Francesco Tamagno (the future Iago and Otello) in the cast, proved Verdi triumphantly right.

To say that Simon Boccanegra has since been firmly established in the international repertoire would be overstating the case. It is not an automatic "box office" opera, but then neither is Falstaff. Furthermore, it does reveal a certain clash of stylistic elements: much of the 1857 writing, too good for the composer to discard, recalls the Verdi of *I Vespri Siciliani*, while the music that was added some twenty-five years later strongly suggests *Otello*. And yet, this is a marvelously absorbing work; in an inspired performance, all reservations vanish before the humanity of the drama and the power and inventiveness of the music.

Each of the previous three complete recordings of Simon Boccanegra had certain elements of distinction, but Deutsche Grammophon's new version reveals the grandeur of Verdi's score in all its dimensions. La Scala's Giorgio Strehler/Claudio Abbado production has been a source of Milanese pride for several years. It was admired during La Scala's visit to Washington, D.C., during the Bicentennial with virtually the same cast heard in this DG recording. and it is posterity's good fortune to have such a brilliantly prepared and executed performance perpetuated on records.

Top honors should go to Claudio Abbado for the skill with which he reveals the compassionate intensity of Verdi's music. He draws a positively shimmering sound from the orchestra, chooses just tempos throughout, and guides his singers firmly yet without rigidity. He has an outstanding ensemble to work with. Piero Cappuccilli is unquestionably Tito Gobbi's heir to the title of Most Distinguished Doge of Them All. Like his predecessor, he is a splendid singing actor, fully in command of the role's manifold challenges, now thundering against his enemies, now meltingly tender with his newly found daughter. There are more expressive nuances and more eloquence and nobility in his singing than he exhibited in





CLAUDIO ABBADO: a positively shimmering sound from the orchestra

the indifferently conducted RCA set released several years ago. In the role of Gabriele Adorno, José Carreras adds another success to his growing list of impressive characterizations: his singing is stylish, elegant, beautifully enunciated, altogether convincing.

Mirella Freni is slightly below top form in her first-act aria, but she goes on to an exquisitely sung and extremely moving Recognition Scene and never wavers thereafter. Nicolai Ghiaurov is a sonorous Fiesco of commanding stature, though I must regretfully note that neither this nor his immediately preceding recorded appearances quite measure up to his own long-held standard of excellence. In the Iago-like role of Paolo Albiani, José van Dam is simply superb, and bass Giovanni Foiani and tenor Antonio Savastano perform like major artists in their cameo roles.

The La Scala chorus is fine most of the time, but the off-stage women in Fiesco's "Il lacerato spirito" sound slightly off-pitch to my ears. Except for occasional overmiking of the singers, the engineering is as exemplary as the rest of the production, literary presentation included. The score is rendered complete, retaining the usually omitted cabaletta for Amelia and Gabriele in Act I, Scene 4. Bravi tutti!

-George Jellinek

VERDI: Simon Boccanegra. Piero Cappuccilli (baritone), Simon Boccanegra; Nicolai Ghiaurov (bass), Jacopo Fiesco; José van Dam (bass), Paolo Albiani; Mirella Freni (soprano), Amelia/Maria; José Carreras (tenor), Gabriele Adorno; Giovanni Foiani (bass), Pietro; Antonio Savastano (tenor), Captain. Chorus and Orchestra of Teatro alla Scala, Claudio Abbado cond. DEUT-SCHE GRAMMOPHON 2709 071 three discs \$26.94, © 3371 032 \$26.94.

### Enchanting Themes, Surprising Felicities, And Rhythmic Ingenuity In Haydn Symphonies

F Neville Marriner and his Academy of St. Martin-in-the-Fields have made a more richly satisfying record than their new Philips coupling of Haydn's Symphonies Nos. 43 (Mercury) and 59 (Fire), it hasn't come my way. Such adjectives as "delightful," "lively," and "stylish" cannot begin to describe the combination of charm and integrity in these performances, which are not merely "lively," but alive, filled with a wit and brilliance that are Haydn's own and not some ill-fitting interpretive overlay. And what remarkably substantial works these "earlymiddle-period" symphonies are! How filled with enchanting themes and surprising felicities of rhythmic ingenuity and instrumental color!

The only serious rival to face Marriner's crisp and sparkling performances is Antal Dorati, in his marvelous complete Haydn symphony cycle for London. The differences between the two conductors' approaches, common to both symphonies, may be summed up as greater mellowness and rhythmic subtlety on Dorati's part, greater vivacity and drive on Marriner's. There is also a handsomer sheen on the Academy's strings than on those of the Philharmonia Hungarica, and the winds stand out more effectively in Philips' excellent recording, which is both more full-bodied and more detailed than London's.

The harpsichord is more audible on Philips than the one played by Dorati himself on London, and some listeners might feel this prominence is exaggerated; I don't find it so-and I shouldn't want to exaggerate the differences between the respective performances. The most conspicuous contrast may be noted in the two approaches to the slow movement of No. 43, very deliberate and ruminative under Dorati, more flowing and outgoing under Marriner; the minuets in both works are further cases in point. But, just as there is nothing somnolent about Dorati's readings, neither are Marriner's by any means of the breathless variety that outlasts its welcome with a second exposure: there is elegance everywhere, poignancy without overstatement in the slow movements, and beneath it all the beat of Haydn's own warm heart.

Surely everyone at all serious about Haydn will want (or will already have) Dorati's full cycle of the symphonies, but anyone that serious will also want to augment that admirable series with other outstanding versions of some of the individual works-Eugen Jochum's Deutsche Grammophon recordings of the "London" symphonies by all means, and now this gem from Marriner, who, as the liner material reminds us, has embarked on a series of recordings of pairs of Haydn symphonies with related sobriguets (Philosopher and Schoolmaster, Military and Drum-Roll, etc.). If the rest of his series is as attractive as this installment, there should be a good deal of ungrudging duplication; even these early(ish)

works are, after all, meaty enough to sustain more than one interpretation. —Richard Freed

HAYDN: Symphony No. 43, in E-flat Major ("Mercury"); Symphony No. 59, in A Major ("Fire"). Academy of St. Martin-in-the-Fields, Neville Marriner cond. PHILIPS 9500 159 \$8.98, © 7300 524 \$8.95.

Remarkable Authority And Rekindling Vigor In Ray Charles' New "True to Life"

WHEN I received for review a new album titled "True to Life," I noticed two things at once: the first was that Ray Charles was back with Atlantic, for which label he had done some of his finest work in the Fifties and Sixties. In recent years he has bounced around various labels, including his own, but his performances were wayward and only occasionally displayed the steamingly intimate, awesomely accomplished communicative gifts that won him the name of "the Genius" some twenty years ago.

The second thing I noticed was the listing of the song titles; spying the George and Ira Gershwin winner *How Long Has This Been Going On*, I naturally expected to hear one of those treatments that only Ray Charles at his best can lend to a class ballad. I was not disappointed: he is right on target with an interpretation that attains classic status by the time he's sung the first verse.

This is surely Charles' finest album in many years; it recalls and reaffirms all his past glory and demonstrates how indebted many younger singers are to his singing style, vocal mannerisms, and spoken asides. Indeed, every "soul" singer performing today ought to be paying him royalties.

There was once a danger that Charles' unique contributions to music might be lost amid the yawpings and bawlings of his many conscious imitators, but today many young singers are totally unconscious of what they owe him. Most of them are more than a generation removed from the time Charles first startled the nation in the Fifties with Hallelujah I Love Her So, I Got a Woman, and What'd I Say. If you played this new album for someone in his twenties, he'd probably say that Ray Charles reminds him of some contemporary singer, not knowing that Charles is a primal source. His whoops, gutsy chuckles, and easy banter ("I wanna thank you, little girl") are so much a part of the modern soul singer's performing repertoire that it is often forgotten that Charles invented them.

Those who have followed Charles' career will be delighted to hear that the standout performances on this album equal his superb moments of earlier days. If you thrilled once to I Got News for You, Ruby, I Can't Stop Loving You, and You Don't Know Me, you

will thrill again to his impressive authority, his rekindling vigor in such hackneyed material as *Be My Love*, *Oh*, *What a Beautiful Morning*, and the Beatles' *Let It Be* as well as the aforementioned *How Long Has This Been Going On* (which I expect I'll never stop playing).

There are a couple of dull spots here on side two with Anonymous Love and Heavenly Music, two turgid items Charles shouldn't have bothered with, but the pace picks up again with Game Number Nine, a funny talking blues on which he is at his most charming. Also excellent are I Can See Clearly Now, a fine reworking of the Johnny Nash reggae hit, and The Jealous Kind, the sort of rolling-on-the-ground confessional pop-blues at which the Genius just can't be beat.

Charles produced the album himself, and while it is very difficult to be in two places at the same time (haven't quite mastered it myself yet), he brings off his assignments successfully at both microphone and studio control board. The arrangements (by Larry Mahoberack, Sid Feller, Roger Newman, and Charles himself) vary from big-band jazz to slugging, small-combo backings, and all are outstanding. The word for the whole thing is . . . superb.

—Joel Vance

**RAY CHARLES: True to Life.** Ray Charles (vocals, keyboards); vocal and instrumental accompaniment. I Can See Clearly Now; The Jealous Kind; Oh, What a Beautiful Morning; How Long Has This Been Going On; Be My Love; Anonymous Love; Heavenly Music; Game Number Nine; Let It Be. ATLANTIC SD 19142 \$7.98, (\*) TP 19142 \$7.97, (\*) CS 19142 \$7.97.

NEVILLE MARRINER: vivacity and drive



RAY CHARLES: past glory reaffirmed



Jane Olivor in a Program Tailored To an Impressive Talent and Range

N "Chasing Rainbows," her second album for Columbia, Jane Olivor, who knows how to speak low when she speaks love, presents a program that confirms her as a singer of impressive talent and considerable range. She knows how to husband emotion and then let it go, building somewhat in the Piaf manner to a high-powered display of strength at exactly the right moment, as she does in her tour-de-force handling of The Big Parade, which thoroughly lives up to its title in a production-number treatment complete with military march-rhythm overtones. Or she can be infinitely wistful, as in Donovan's ballad Lalena, a tale of a sufferer who paints her face "with despair" and has a generally sad time of it.

One of Olivor's secrets would appear to be a talent for picking songs that are exactly right for her resources—The French Waltz, for example, which comes across like a miniature Renoir movie with its plot about a pair of lovers on their way to the bureau de mariage for an old-fashioned wedding ... or is the whole episode just a lonely young girl's dream? But whether this singer is dealing with the pain of parting in It's Over Goodbye, a touching moment of reunion with an old friend in Come In from the Rain, or just being grateful for being loved in You, her taste, her timing, and her superb control of an attractive voice hold the listener firmly in her grasp from one rainbow to the next. You get the feeling, in fact, that if anybody could catch up with that "little bluebird" it would be Jane Olivor. A distinguished effort. —Paul Kresh

JANE OLIVOR: Chasing Rainbows. Jane Olivor (vocals); instrumental accompaniment. I'm Always Chasing Rainbows; Lalena; The Big Parade; The French Waltz; You Wanna Be Loved; It's Over Goodbye; Come In from the Rain; Beautiful Sadness; You. COLUMBIA PC 34917 \$6.98.

### John Stewart's "Fire in the Wind": You Can't Keep a Good Singer Down

JOHN STEWART replaced Dave Guard in the Kingston Trio way back at the start of the modern folkie business, and the story goes that he was the one who finally taught the remaining Kingstons the actual names (technically, the letters) of the three or four keys they knew how to play in. Only the critics seem to have kept track of Stewart between then and now, probably because he has been, as that story suggests, more musician than entertainer. Comes now his new RSO album, "Fire in the Wind," which will show anyone who cares to listen that he's more than enough of both.

His big, deep, textured, rugged, vulnerable baritone is as good as ever, and the flaws in his songwriting have been polished out. The album, like some of his others, has a recurring motif in itthe wind, augmented by a little thunder-but, unlike some of his others, it isn't a matter of a little material stretched too thin; it's rich and varied, with nuance dotted all through it. He's learned how to make repetition work for him instead of against him (a good thing in a songwriter so partial to choruses and refrains), and he's learned to be a little less cryptic with both verbal and melodic vocabularies (there are enough tunes and lyrics to go around this time). And, finally, his up-tempo tempo changers (especially 18 Wheels) have some energy of their own. All of which would not matter if the production and instrumentals weren't also good-in fact, exemplary. You won't often hear so many different effective uses made of acoustic guitars fairly simply played. Best album I've heard in months. -Noel Coppage

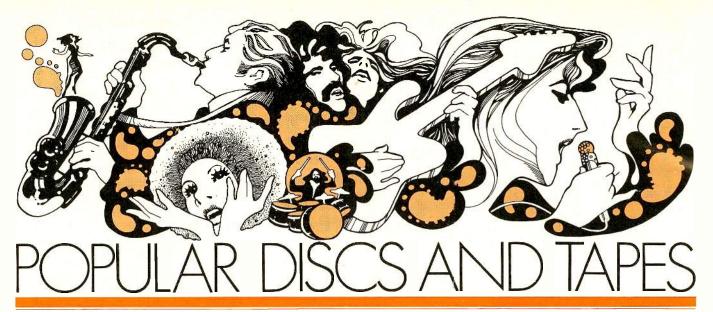
JOHN STEWART: Fire in the Wind. John Stewart (vocals, guitar); Reggie Young (guitar); Shane Keister (keyboards); Ken Buttrey (drums); Chris Whalen (bass); other musicians. Fire in the Wind; Rock It in My Own Sweet Time; On You Like the Wind; The Runner; Morning Thunder; Promise the Wind; Boston Lady; 18 Wheels; The Last Hurrah; The Wild Side of You. RSO RS1-3027 \$6.98, (1) 8T1-3027 \$7.97, (2) CT1-3027 \$7.97.

JANE OLIVOR: superb control



JOHN STEWART: a little less cryptic





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

### RECORDING OF SPECIAL MERIT

CARPENTERS: Passage. Karen and Richard Carpenter (vocals and instrumentals); instrumental accompaniment. B'wana She No Home; All You Get from Love Is a Love Song; I Just Fall in Love Again; Evita; On the Balcony of the Casa Rosada; and five others. A&M SP 4703 \$6.98, (a) AAM 4703 \$7.98, (c) AAM 4703 \$7.98.

#### Performance: Full of surprises Recording: Excellent

The Carpenters' latest album is nothing if not adventurous. It opens with B'wana She No. Home, a provocative song by Michael Franks about a wealthy woman and her native servant in South Africa. There's a shimmering rock version of Man Smart, Woman Smarter (which Harry Belafonte used to sing calypsostyle). There's even a whole scene from Evita, the rock opera about Eva Peron created by Andrew Lloyd Webber and Tim Rice (the team that gave us Jesus Christ, Superstar). Karen Carpenter acquits herself quite splendidly as the dictator's wife pleading with the populace not to keep their "distance" from her now that her husband has risen to power. (For this one cut the Carpenters were somehow able to induce fifty of the Gregg Smith Singers and half of the Los Angeles Philharmonic to participate.) The program concludes

#### Explanation of symbols:

- $(\mathbf{R}) = reel-to-reel stereo tape$
- **(8)** = eight-track stereo cartridge
- $(\mathbf{\hat{c}}) = stereo\ cassette$
- $\Box = quadraphonic disc$
- **R** = reel-to-reel quadraphonic tape
- $[\underline{B}] = eight-track quadraphonic tape$

Monophonic recordings are indicated by the symbol M

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

rather remarkably with a science-fiction song, Calling Occupants of Interplanetary Craft, which manages to avoid resorting to a single sound-effects cliché. There are, it's true, also a number of more characteristically mild Carpenter items, such as I Just Fall in Love Again and Sweet, Sweet Smile, but by and large "Passage" is an eventful recording. P.K.

### RAY CHARLES: True to Life (see Best of the Month, page 112)

### RECORDING OF SPECIAL MERIT

**CRAWLER.** Crawler (vocals and instrumentals); vocal and instrumental accompaniment. Without You Babe; You Got Money; Sold On Down the Line; One Too Many Lovers; You Are My Saviour; Stone Cold Sober; and three others. EPIC PE 34900 \$6.98, <sup>®</sup> PEA 34900 \$7.98, <sup>©</sup> PET 34900 \$7.98.

#### Performance: Excellent Recording: Excellent

Here's an impressive album by an English band, formerly called Backstreet Crawler, that at certain moments reminds me of the fine Welsh band Ace. Both groups play flexible, colorful, jazz-tinted arrangements, with each instrumentalist contributing his fair share and no one hogging the solos. Both also have strong, versatile lead vocalists, Crawler's being Terry Wilson Slesser.

Although Stone Cold Sober is the cut getting heavy air play, You Got Money, with a delightfully back-pedaling riff, and the smooth and easy Sold On Down the Line, featuring tasteful work by Geoff Whitehorn's guitar and John "Rabbit" Bundrick's organ, are also especially fetching. Overall, the songwriting is solid and imaginative, and the production is clean and crisp. Classy albums are always welcome. Nice going, lads. J.V.

THE CHARLIE DANIELS BAND: Midnight Wind. Charlie Daniels (guitar, fiddle, vocals); Taz DiGregorio (vocals, keyboards); Charles Hayward (bass); Tom Crain (guitar); Fred Edwards (drums). Midnight Wind; Sugar Hill Saturday Night; Heaven Can Be Anywhere; Maria Teresa; Indian Man; and five others. EPIC PE 34970 \$7.98, <sup>(3)</sup> PEA 34970 \$7.98, <sup>(3)</sup> PET 34970 \$7.98.

Performance: **Tight** Recording: **Very good** 

Charlie Daniels is finally getting his act together. To be specific, what's getting together is his band, which I used to think viewed playing a tune as some kind of competition in which volume counted for more points than anything else. It doesn't any more. On "Midnight Wind" the band exhibits quite a cohesive force of complement and harmony, and it has evolved a sound of its own, yet it still has more than your average amount of energy. I've always liked Daniels' singing. Here he yields the vocals now and then, and the first thing said in the songwriting credits is that the band wrote these ditties, so maybe this is a sign of democracy working. Lord knows we could use a sign or two of that. My favorite tune is Sugar Hill Saturday Night, but most of the others are also tuneful-you might opt for Redneck Fiddlin' Man. I like Daniels' picking considerably more than I like his fiddling; he can really ripple a guitar, which he does here regularly but not bombastically. The description "country-flavored rock" doesn't do this album justice. N.C.

**THE DRAMATICS:** Shake It Well. The Dramatics (vocals); instrumental accompaniment. Shake It Well; You Make the Music; My Ship Won't Sail Without You; Spaced Out Over You; Ocean of Thoughts and Dreams; and four others. ABC AB-1010 \$6.98, (1) 8020-1010 (H) \$7.95, (2) 5020-1010 (H) \$7.95.

#### Performance: Stylishly funky Recording: Good

The "blues" element of r-&-b is often sacrificed to the overriding demands of rhythm. Yet the best groups have always applied the formula with balance, emphasizing the projection of feeling through both lyrics and music. The Dramatics are among these wiser groups. Their work is at times reminiscent of the old r-&-b groups of the Fifties, with an oh-so-deep bass voice adding spoken commentary between the melodic statements. Their funk does not seem contrived—note Shake It Well, an old-fashioned, down-home foot-stomper. Other high points here are Spaced Out Over You and Ocean of Thoughts and Dreams. Both are mellow, but modern. This is the work of pros. P.G.

### RECORDING OF SPECIAL MERIT

LARRY GATLIN: Love Is Just a Game. Larry Gatlin (vocals, guitar); instrumental accompaniment. Love Is Just a Game; Tomorrow; Anything but Leavin'; Kiss It All Goodbye; I Don't Wanna Cry; Steps; Alleluia; and four others. MONUMENT MG7616 \$7.98, MG87616 \$7.98, MG87616 \$7.98.

Performance: Very good Recording: Excellent

The last time I saw Larry Gatlin we were both visiting a recording studio and he was pushing songs he'd written. It must have been '74 or '75. Now it turns out that *singing* is the thing about him; he has very good range and is a Deadeye Dick on pitch—which really shows in this recording, whose melodic subtleties test the depth of his relationship with pitch more than others might (some songs are just easier to sing in tune than others).

Gatlin's writing is subtler about melody than most country writing is, and it's a lot subtler about melody than it is about lyrics. This time the lyrics are infiltrated with mediocre plays on words and tend to avoid getting too specific about a particular feeling. His melodies have funny chord changes and odd twists, although the most obvious thing about them isn't subtle at all: big buildups in choral refrains that seem to be related to both country church music and old pop schlock of the pre-rock middle-of-the-road. Fred Foster, head man at Monument, has done quite a fine job here with production to play the buildups just about right. Foster's way is to hire a whole slew of musicians, many playing the same instrument, and to fit the style of musician he wants into the optimum place in a song. Reggie Young's lyrical electric guitar goes a certain place and Grady Martin's Spanish-flavored acoustic playing goes some other place. The result is quite effective and sounds pretty spontaneous, as if Foster felt his way more than he thought his way through these decisions. A little weak lyrically, this album is, but it's a treat for the ears just the same, and it's a distinctive enough marker in Larry Gatlin's progress as a singer. He's still learning, still growing. He's gonna be tall. N.C.

### RECORDING OF SPECIAL MERIT

STEVE GOODMAN: Say It in Private. Steve Goodman (vocals, guitar); instrumental accompaniment. I'm Attracted to You; You're the Girl I Love; Video Tape; There's a Girl in the Heart of Maryland; Two Lovers; and five others. AsyLUM 7E-1118 \$6.98, (\*) ET8-1118 \$7.97, (\*) TC5-1118 \$7.97.

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

The second half of this (starting with Is It True What They Say About Dixie) is very good indeed, but I think the first side tries to finesse us a little with what you might call (Continued on page 118)



### The Boomtown Rats

Up till now, my response to the horde of New Wave rockers making demands on our ears has been, "Put up or shut up." If you're going to knock the Stones or the Who for being boring old farts, you should at least be able to make records on their level, and, frankly, I haven't heard any New Wavers do that, with the possible exception of the Sex Pistols, who make exciting singles but merely so-so albums. (See review of "Never Mind the Bollocks . . ." on page 132.)

But I don't worry about it much any more, because if the New Wave gives us no more than the Boomtown Rats the whole thing will have been worth it. Their debut album on Mercury is just the most exciting, uncompromising rock-and-roll I have heard in years, infinitely better—and I say this with considerable surprise—than anything the superannuated have done since the dawn of this decade. In fact, it is the most stunning, left-field first album by anyone since Bruce Springsteen.

Describing the Rats is almost pointless since they are so proudly mainstream. I could list the influences—Mick Jagger and Keith Richard, Ray Davies, the Yardbirds—and remark on their driven, angry, blues-tinged style of rock, but that wouldn't begin to tell you how they differ from, say, the New York Dolls or even such revivalists as Dave Edmunds. It is a matter of authority, I think. The Rats aren't groundbreakers, but what they do sounds effortless; they can make even the stalest cliches sound fresh again. Rock-androll is in their blood. If you doubt it, just check the showmanship of lead singer Bob Geldof as he spits out the lyrics of Mary of the 4th Form or the way the band as a whole pummels the closing chords of Kicks. Beyond the band's own talents, Robert John Lange's production achieves something I had thought was impossible—a perfect synthesis of the raunchy and the sophisticated. And there are enough little details only partially obscured in the murk of the cunningly fake-mono sound to have you discovering new delights for weeks.

FORGET hypes, forget razor blades and safety pins, forget anarchy in the U.K., forget the Blank Generation . . . in fact, forget everything even remotely associated with the labels "punk" and "New Wave." Movements are a waste of time, and Sturgeon's Law is still valid: 90 per cent of everything is crap. All you need to remember is that the Boomtown Rats get as close to the essence of rock as anyone in our lifetimes and that they've made one of the finest albums of this age of the world, easily accessible to old fart and young turk alike. Get it. —Steve Simels

THE BOOMTOWN RATS. The Boomtown Rats (vocals and instrumentals). Lookin' After No. 1; Neon Heart; Joey's on the Streets Again; Never Bite the Hand That Feeds; Mary of the 4th Form; (She's Gonna) Do You In; Close As You'll Ever Be; I Can Make It If You Can; Kicks. MERCURY SRM-1-1188 \$6.98, ® MC8-1-1188 \$7.95, © MCR4-1-1188 \$7.95.

"... make even the stalest clichés sound fresh again."



### Needle in the hi-fi haystack

Even we were astounded at how difficult it is to find an adequate other-brand replacement stylus for a Shure cartridge. We recently purchased 241 random styli that were not manufactured by Shure, but were being sold as replacements for our cartridges. Only ONE of these 241 styli could pass the same basic production line performance tests that ALL genuine Shure styli must pass. But don't simply accept what we say here. Send for the documented test results we've compiled for you in data booklet # AL548. Insist on a genuine Shure stylus so that your cartridge will retain its original performance capability-and at the same time protect your records.

### Shure Brothers Inc.

222 Hartrey Ave., Evanston, IL 60204 In Canada: A.C. Simmonds & Sons Limited



Manufacturers of high fidelity components, microphones, sound systems and related circuitry CIRCLE NO. 59 ON READER SERVICE CARD



-ynn Goldsmit

Mr. Jagger as Ms. Simon

Stone Product"

" DRODUCT," not music, is what keeps the record industry going. Bands grind it out at their label's behest ("We have more Aerosmith product due"), record stores stock and sell it like soap or soda pop, fans lap it up ("Rumours" has been number one on the charts for eighteen weeks at this writing), and critics deplore it, even though it is arguably the purest expression of real pop culture, as disposable as a beer can or a Pamper. Product. The most accurate description of the new album by . . . the Rolling Stones?

Well, I'm not sure. I hope not. But the circumstances surrounding the creation of "Love You Live," as well as the aural evidence of the record itself, lend credence to my sneaking suspicion that it's merely a throwaway. Consider the facts:

First, this has got to be the most ineptly mixed rock album in ages. Charlie Watts is so up front that he sounds as if he's playing a drum solo throughout. The guitars drift in and out seemingly at random-that is, when you can hear them at all, which is only intermittently (just try picking out where Ronnie Wood is on Honky Tonk Women). The background vocals, which are even more ragged than usual, simply blast out of the speakers, while Bill Wyman's bass is all but inaudible. To call this perspective "unnatural" is like calling Hitler an unpleasant character.

Second, the Stones were in a state of chaos

while they were getting "Love You Live" together. Keith Harwood, the engineer who began the project and with whom the band had had a long working relationship, died during its early stages. Keith Richards' drug bust was front-page news and he faced the very real possibility of a jail sentence. The New Wave acts were nipping at the Stones' heels (the Sex Pistols publicly suggested that Mick Jagger go Elvis one better and kill himself). Finally, the group's contract was being renegotiated. With all that to contend with, wouldn't you be tempted to fulfill your last obligations to your label in the easiest way possible? After all, all they want is product.

But the Stones have loudly declared that that isn't what they did, and "Love You Live" makes it enough of the time in musical terms that I can't be totally cynical about it. Some of the things here are quite nice, actually. The blues stuff on side three, for example, which was cut at the band's first club appearance in almost fifteen years, has all the raw energy, authority, and sass we expect from the Rolling Stones, and for a change the recording catches both the group and the atmosphere fairly faithfully. Some of the newer, lesser songs-Fingerprint File especiallycome off a lot better here than in the original studio versions. Still, by and large, the band sounds loose, tired, and uncommitted, and whether that's entirely the result of engineering incompetence is beyond me. All I know is that "Love You Live" doesn't sound like the Greatest Rock-and-Roll Band in the Worldor even like the Rolling Stones as I've heard them on recent live bootlegs with ten times the impact of this set.

DUT it hardly matters. The attitude of rock audiences today is maddeningly complacent (how else can you explain "Frampton Comes Alive"?), and they are bound to see any concert album as filler, which is hardly the Stones' fault. Besides, the Stones are a reactive band-unconscious journalists, if you will-and their function has never been to surprise us, to knock us out of our complacency. That's up to the younger bands, some of whom are threatening to heat up the musical and social climate to the point where a record can again have a real impact on someone's life. If they do-and it looks more likely all the time-I have no doubt that the Stones will have at least as much to say as any of them, and will rock harder in the bargain. Which sounds like a good deal for all concerned, don't you think? -Steve Simels

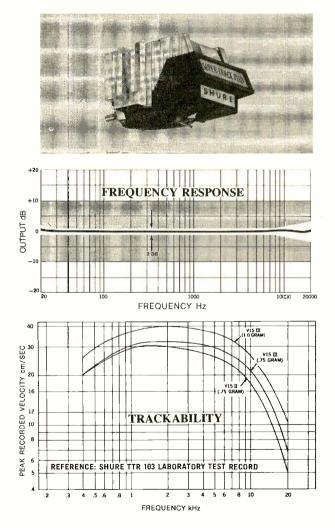
THE ROLLING STONES: Love You Live. The Rolling Stones (vocals and instrumentals); instrumental accompaniment. Honky Tonk Women; If You Can't Rock Me/Get Off of My Cloud; Happy; Hot Stuff; Star Star; Tumbling Dice; Fingerprint File; You Gotta Move; You Can't Always Get What You Want; Mannish Boy; Crackin' Up; Little Red Rooster; Around and Around; It's Only Rock 'n' Roll; Brown Sugar; Jumping Jack Flash; Sympathy for the Devil. ROLLING STONES COC 2-9001 two discs \$11.98, (a) TP2-9001 \$12.97. © CS2-9001 \$12.97.

. .sneaking suspicion that it's merely a throwaway."



### fact: "off-the-shelf" Shure cartridges perform like Shure "critics' samples."

Whether you purchase your Shure cartridge in Evanston, Illinois or Evanston, Wyoming, in Osaka, Sydney, London, Lima or Casablanca . . . you can be confident it will perform well within its stated specifications. Independent critics around the world buy Shure cartridges off dealers' shelves and subject them to rigorous tests. We have built our reputation on an unwavering uniformity and strict adherence to the high standards of our Master Quality Control Program.



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Shure's painstaking Master Quality Control Program insures that every Shure cartridge and stylus will perform as well as our laboratory reference units. And each cartridge must meet or exceed its published specifications. All critical performance tests are imposed on 100% of all Shure V15 Type III cartridges and styli, including (a) frequency response for each channel, (b) output level, (c) channel balance, (d) crosstalk between channels, (e) trackability, and (f) anti-collapse assurance. Fact is, Shure quality control is state-of-the-art.

### FREQUENCY RESPONSE:

Every Shure V15 Type III cartridge must display exceptionally flat frequency response over the audible spectrum. Each is individually tested to be within ¾ dB from flat frequency response for each channel. This limit is acutally more demanding than the envelope shown. Those that fail this stringent frequency response test are rejected. And only those cartridges that pass Shure's intensive Quality Control Tests make it to your local Hi-Fi Store.

### TRACKABILITY:

Shure pioneered the trackability concept over a decade ago in response to the need for a single relevant measurement of total cartridge and stylus performance. Trackability has been accepted by audio authorities as the definitive measure of how well a cartridge and stylus perform on today's increasingly"hot" recordings. Every Shure V15Type III cartridge must pass extensive trackability tests.

Send for High Fidelity Catalog AL210T.



Shure Brothers Inc., 222 Hartrey Ave., Evanston, IL 60204, In Canada: A. C. Simmonds & Sons Limited Manufacturers of high fidelity components, microphones, sound systems and related circuitry. CIRCLE NO. 59 ON READER SERVICE CARD trendy eclecticism, craftmanship turned loose on a catalog of trivia. The thing starts off with a little number that can remind you at once of both disco and that absent-minded pap music Brazil is famous for (and maybe even less wonderful things, depending on your experience), but you'd have to say it's done well. The second side, though, acknowledges that music really has to connect with the heart. Hank Williams' Weary Blues from Waitin', generally overlooked among Williams' tunes, was an excellent choice, an inspired choice, and Goodman, with Saul Broudy on the harp, lays it bare. Daley's Gone is an interesting exercise, a stylized remake of Dehlia's Gone in a topical song about the late Richard J. of Chicago, but it is not very pointed, politically or

otherwise. My Old Man is a semi-remarkable piece, and The Twentieth Century's Almost Over, which Goodman wrote with old pal John Prine, is more than good enough to suggest that they should write together again, several times. Goodman's singing continues to be expressive and his guitar playing is tastier than ever. Having this is almost like having two halves from different albums, but one of the halves is good enough to carry the other.

**RECORDING OF SPECIAL MERIT HALL AND OATES:** Beauty on a Back Street. Daryl Hall, John Oates (vocals and instrumentals); other musicians. Don't Change;



Why Do Lovers Break Each Other's Heart?; The Girl Who Used to Be; You Must Be Good for Something: Bigger Than Both of Us; Bad Habits and Infections; and four others. RCA AFL1-2300 \$7.98, (1) AFS1-2300 \$7.98, (2) AFK1-2300 \$7.98.

Performance: Eclectic Recording: Very good

The recording world has become so compartmentalized that artists are commonly locked into categories based on the type of music we have come to expect from them. Rock is rock, soul is soul, country is something else, jazz is ever in search of a home, and "easy listening" seems to be a vague, mid-American catch-all. Seldom do any of them meet, particularly on the nation's radio stations.

Therefore, Daryl Hall and John Oates are adventuresome (conservative as they might seem at times) in that they have consistently defied categorization, preferring to draw on all of the many types of music that nurtured them. Both were heavily influenced by the Philadelphia brand of rock-and-roll of their formative years. Back in those days, Oates was emulating Elvis Presley while Hall worked as a session musician with Kenny Gamble, now of the Gamble and Huff songwriting/producing team. Yet they were equally affected by the British rock movement of the Sixties and everything that followed.

They have attempted to integrate all these elements in "Beauty on a Back Street." Though in the past they have leaned more heavily toward what might be called easy-listening r-&-b, their new set is markedly more eclectic. Each track, taken separately, might fit comfortably into several programming niches. Why Do Lovers Break Each Other's Heart? evokes the old doo-wop groups, You Must Be Good for Something opens with some sure-footed blues-guitar licks only to be transformed into the sort of sassy anthem typical of the Rolling Stones in their moments of youthful defiance, The Girl Who Used to Be is sufficiently soft to pass the tenderness test in the MOR marketplace, and there are traces of raga rhythms on Winged Bull. Each dips unobtrusively into a different sonic stream yet retains a basic musical integrity. I'm a 'soul"-oriented listener, but somehow they all manage to reach me. P.G.

Performance: Excellent Recording: Good

The late Freddie King was a fine, growling blues shouter and an excellent guitarist who played with an economy—the right note in the right place at the right time—that is rare among blues guitarists. His passing sadly reduces the number of active bluesmen still left from the golden days.

One of King's disciples, Eric Clapton, appears throughout the second side of this memorial album, and there's a delicate guitar chorus from George Terry, on *Gambling Woman Blues*, where he plays a fine slidestyle insert. Recommended. J.V.

(Continued on page 122)



OUNTER RESET MEMORY METER INPUT SELECTOR DOLBY NR (MPX)

# LH BIAS FINE (%) 150 Jon From Alway

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



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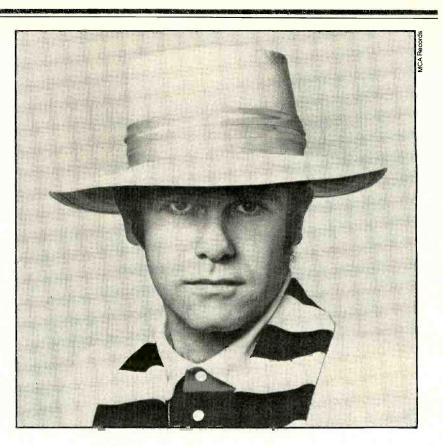
The AIWA AD-6550. Be forewarned.



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### Elton's Greatest

JUST how did a pudgy little suburban Englishman who calls himself Elton John ever get to the point of releasing "Greatest Hits" albums (Volume II, yet!) and careering about as a superstar not only of pop music but of the other media as well?

By guts, talent, and self-confidence, of course, but also-and more basically-by taking the "show" part of show business very seriously indeed. Elton works as hard-one might almost say as shamelessly-at being a joyous eccentric on constant public display as he does at his musical craft. With each new outlandish custom car he orders, each new surreal costume he parades about in, and each new revelation about his private (!) life, he casts a wider spotlight of celebrity about himself. The price has been a tidal wave of tsktsk's from the uptight, "serious" critics that might have drowned a less ebullient exhibitionist but has barely dampened Elton's platform heels. He's known where he was going right from the beginning, and now he's reached it: The Top. Since the air gets a bit thin up there and it's hard work to prepare new material, he's doing some quick cashingin with albums such as this.

But who's complaining? Every track here--from his wistfully spacy Lucy in the Sky with Diamonds to the classic Pinball Wizard to the happy groans of The Bitch Is Back to the sad sweetness of Island Girl---is authentic Elton, which means that we are in the presence of a unique showman who also happens to be an extremely clever and creative pop communicator. Of course, it is that same zany cleverness that has so offended many critics that they ignore the creativity that goes along with it.

Elton recently announced that he's giving up live stage performances, which is rather like a French poodle announcing that he intends to become a Weimaraner. Any place Elton appears is a stage. But if the announcement means that he intends to spend more time in the recording studio, then it's good news for us all. As we edge into the Orwellian Eighties, we are going to need eccentricity and flamboyance, no matter how well rehearsed, to relieve the dreariness of it all. And the spectacle of Elton John prancing about on his hind legs and jumping through musical hoops is worth a smile any time. Let's all pray that he never decides to get serious.

-Peter Reilly

ELTON JOHN: Greatest Hits, Volume II. Elton John (vocals, piano); vocal and instrumental accompaniment. The Bitch Is Back; Lucy in the Sky with Diamonds; Sorry Seems to Be the Hardest Word; Don't Go Breaking My Heart; Someone Saved My Life Tonight; Philadelphia Freedom; Island Girl; Grow Some Funk of Your Own; Levon; Pinball Wizard. MCA MCA-3027 \$6.98, <sup>®</sup> MCAT-3027 \$7.98, <sup>©</sup> MCAC-3027 \$7.98.

" taking the 'show' part of show business seriously "

CIRCLE NO. 25 ON READER SERVICE CARD

### As you would expect from LUX, our new R-1050 tuner/amplifier "is no mere run-of-the-mill receiver."

When LUX Audio entered the U.S. audio scene in 1975, we brought with us a worldwide reputation for excellence. But since we also brought only our separate amplifiers and tuners, relatively few audiophiles could enjoy the special qualities of LUX performance.

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'Given its features, appearance and performance, this is no mere run-of-the-mill receiver....The excellent audio-distortion ratings ... obviously place it among the cleanest of the currently available receivers...every aspect of the receiver's operation and handling was as smooth and bug-free as its fine appearance would suggest.

Typical of the circuitry and features that result in such fine performance are these: a dual-cate MOSFET front end for high sensitivity, and a special linear-phase filter array for high selectivity, low distortion and wide stereo separation. The preamplifier section has a two-stage direct-coupled amp for accurate

RIAA equalization and a good phono overload capability. And the power amplifier is directcoupled DC, in a true complementary symmetry configuration, for excellent transient and phase response.

Operating features include a six-LED peak level indicator for each channel; tape-to-tape dubbing with simultaneous listening to other program sources; turr-on time delay speaker protection plus automatic overload shutdown.

The sound of the R-1050 has been appreciated as much in England as here. For example, the British magazine HiFi at Home said: "....treble quality was light and delicate, something LUX engineers always seem to achieve... bass output seemed plentiful and strong, as is often the case with enormous, low impedance power supplies."

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### X Audio of America, I 160 Dupont Street, Plainview, New York 11803 • In Canada, White Electronics Development Com. Ontario



### RECORDING OF SPECIAL MERIT

NILS LOFGREN: Night After Night. Nils Lofgren (vocals, guitar, piano); Tom Lofgren (guitar, organ); Wornell Jones (bass); other musicians. Take You to the Movies; Back It Up; Like Rain; Cry Tough; It's Not a Crime; Goin' Back; You're the Weight; and seven others. A&M SP-3707 two discs \$9.98. (\*) AAM 3707 \$9.98. (\*) AAM 3707 \$9.98.

Performance: Hot stuff Recording: Excellent

I had high hopes for this live set (culled from a number of concerts), and I'm happy to say that by and large they're fulfilled. For starters, the programming of "Night After Night" sensibly takes a Greatest Hits approach. Although the bulk of the material comes from his solo albums. Nils has also gone back and reworked several fine numbers from his days with Grin; the result is an excellent overview of his growth during the last six years or so.

More important, the touring band Nils now uses is not only the best he's ever worked with, as an ensemble it has matured into one of the finest rock groups currently treading the boards. The band's relaxed yet powerful style suggests a cross between Jimi Hendrix and Creedence Clearwater, but without the excesses of the former or the rhythmic stiffness of the latter. Patrick Henderson's keyboard work is especially fine—check out his lovely Caribbean riffing on *I Came to Dance*. It is a delight.

And so, of course, is Nils. His guitar playing is, if anything, even more inventive in a

live situation than it is in the studio, and he is in top form here. As a rock singer, he's a total natural, with just the right mix of sweetness and swagger. I wonder, though, whether he's not perhaps too natural for his own good, or at least for the audience's. His live shows are among the friendliest I've ever attended, but he rarely seems interested in working the crowd. In person he's endearing rather than involving, and "Night After Night" accurately reflects this-which makes me suspect that the set won't be a commercial success on the level of, say, "Frampton Comes Alive." But that certainly shouldn't deter you for a moment from acquiring it. It's a knockout-one of the handful of live double albums that sustains interest over all four sides.

LYNYRD SKYNYRD: Street Survivors. Lynyrd Skynyrd (vocals and instrumentals). What's Your Name; That Smell; One More Time; I Know a Little; and four others. MCA MCA-3029 \$6.98, <sup>(®)</sup> MCAT-3029 \$7.98, <sup>(©)</sup> MCAC-3029 \$7.98.

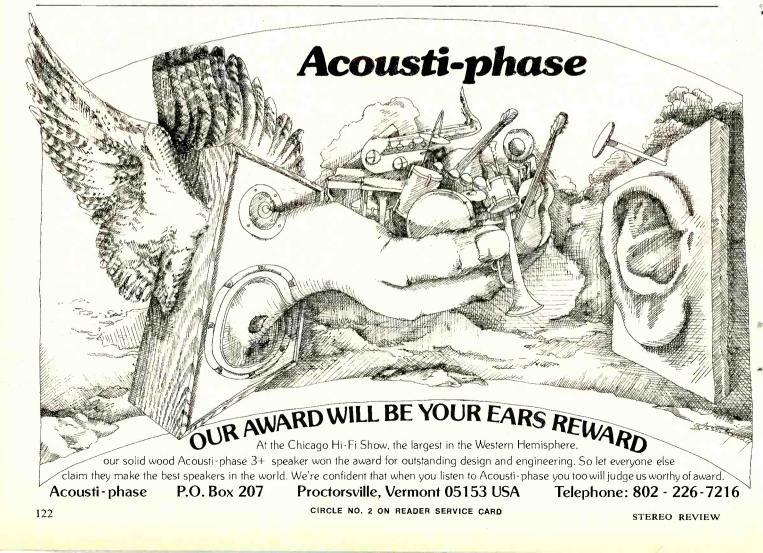
#### Performance: Good Recording: Good

This is the last album from Lynyrd Skynyrd as we have known it, barring release of outtakes or other stuff taped earlier, since three members of the band were killed in an airplane wreck just as "Street Survivors" was about to be marketed. And it's a pretty welledited showcase of the band's strengths. It's Southern rock from the viewpoint popularized by the Allman Brothers, drawing much more from black than white country music, but the band had its own way of playing it. The songs aren't very deep; you don't need to play a cut ten times to find out what the song is about-but playing it three or four times will help you appreciate the ensemble work, the blend of voices and instruments, instruments and instruments. And this batch of songs is fairly tuneful. Nothing stands out as a real grabber, beyond the irony of the word "survivors" in the title and the message of That Smell ("of death"), but then nothing slinks down as a real dud either. It doesn't strike me as the kind of album to play five times a day the first week you have it, but if you like the genre, it's the kind of album you can keep coming back to. NC

LIZA MINNELLI: Tropical Nights. Liza Minnelli (vocals); instrumental accompaniment. Jimi Jimi; When It Comes Down to It; I Love Every Little Thing About You; Easy; I'm Your New Best Friend; and four others. Co-LUMBIA PC 34887 \$6.98, (a) PCA 34887 \$7.98, (b) PCT 34887 \$7.98.

#### Performance: Not a rest cure Recording: Very good

Oh, Liza, Liza! That child has been a source of concern to me for years. I've been worried about her ever since I saw her in her first starring role on Broadway (in *Flora, the Red Menace*) I hate to think how many years ago. I mean, she's so *vulnerable*. Look at the rotten deal she got from Robert de Niro in *New York*, *New York*. Way before that, *Cabaret* stranded her in Berlin without even enough *(Continued on page 128)* 



### THE MOST IMPORTANT FEATURE IN THESE DECKS IS BASED ON A TIMELESS IDEA.



The features and specifications of TEAC decks have changed, but the timeless constant has been TEAC reliability. Every improvement we've made has added to this reliability. It's our most important feature.

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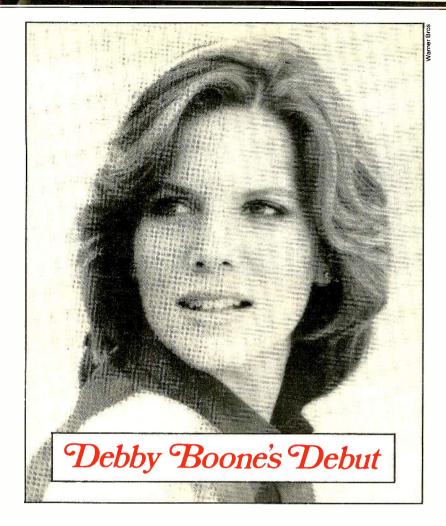
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HE Fifties weren't all grease and raunch and Elvis, y'know. They had their wholesome, homespun, upstanding side too. And nobody, but nobody, was more wholesome, homespun, or upstanding than Pat Boone. His cheery, beaming performance image was as spotless as his white-buck shoes, and parents heaved sigh after sigh of relief as his records-Friendly Persuasion, April Love, Anastasia-crested the top of the charts one after another. It wasn't only parents who cottoned to him, either. Hordes of devoted teenagers also cheered when he went to Hollywoodand shuddered with relief when he refused to give Shirley Jones an on-screen kiss in his first film. Pat Boone made us feel that Everything Was Going to Turn Out All Right.

Jump cut to 1978. Pat Boone still looks and acts precisely as he did twenty years ago (there must be a portrait moldering in a closet somewhere), and, even more incredibly, he still *sings* the way he used to. He's been performing across the country with his four daughters (Cherry, Lindy, Laury, and Debby) as the Boone Family Singers. They've had a moderate success—at least no one has spiked their milk shakes or tried to gang-rape anybody—so all must still be well.

Dad Boone's newest album, "The Country Side of Pat Boone," is in the familiar old vein despite an attempt by producer Ray Ruff to add some extra c-&-w trimmings. But Boone's voice always did have a countryish, placid sound, and his best work here is on *Texas Woman*, a track rereleased from a previous album of that title. The only noticeable change in his voice between then and now is that it has darkened considerably and he's able to handle lyrics in a more expressive, dramatic way. *Whatever Happened to the Good Old Honky Tonk*, for instance, is nicely shaded, saved from being merely beamish by a rakish, I-may-be-a-country-boy-but-I-know what's-up approach that is new to the Pat Boone I last heard from. But don't get any notions that things have changed *that* much. *I'd* 

. . . illuminated with a real sense of yearning and desire

Do It with You isn't, saints preserve us, about doing *it*, but about if he had his life to live over again, and he delivers it with all the aplomb of a man who has earned fifteen gold records and sold over forty million discs.

Moreover, out of all this "togetherness" another byword of the Fifties—has come a

striking new talent, Pat's daughter Debby, whose debut album "You Light Up My Life" indicates that she'll follow in Pop's footsteps commercially. She's not a baritone, of course, but she sounds very much as her father did at the time of his greatest successes. She also has a more reflective, natural style that immediately gets down with a lyric in a simple, direct way-and stays there. Debby's maternal grandfather is the great old c-&-w star Red Foley, and, while there isn't a trace of him in her performances, there is an easy, confidential style that has always characterized the best of country singing. Transferring this style to pop. Debby uses it to create atmosphere and mood for what is basically straight-on commercial repertoire.

It's easy to hear why the title song here hit the number-one spot on the charts in only eight weeks. Aside from the fundamentally *pleasing* quality of Debby's voice, something that her father also always had (and apparently always will have), this rather ordinary little ballad is illuminated with a real sense of yearning and desire and (hold on, Pat!) a subtle sense of the satisfaction that complete love brings. There's the same elusive sexuality in *Hey Everybody*, another little everyday plaint, and *Baby*, *I'm Yours*.

N many of the tracks Debby is accompanied by her sisters, who make a thoroughly wholesome but distracting background racket that interferes with her one-to-one with the listener. Something she and her producer, Mike Curb, have had the good sense and taste not to do is to include any of the songs associated with her father, although she's been heard to say that she'd like to record April Love or Friendly Persuasion sometime. I hope not, for I'll surely flinch, just as I do at the current capers of Liza Minnelli on Broadway in The Act, in which she seems to be becoming more and more an avatar of her mother. Debby has more than enough going for her as it is, and, apart from being grateful for having inherited much that was, and is, good about her father's voice, she ought to leave it at that. One of her most appealing qualities is that even at the age of twenty-one she sounds very, very womanly. As for Pat . . . well, he's still a good ol' boy. Dorian Gray, eat your heart out! -Peter Reilly

PAT BOONE: The Country Side of Pat Boone. Pat Boone (vocals); instrumental accompaniment. Whatever Happened to the Good Old Honky Tonk; Texas Woman; A Natural Feelin' for You; Cowboys and Daddies; We've Been Malled; Ain't Going Down to the Ground Before My Time; I'd Do It with You; Love Light Comes A-Shinin'; Throw It Away; Colorado Country Morning. MC MC6-501S1 \$6.98.

DEBEY BOONE: You Light Up My Life. Debby Boone (vocals); vocal and instrumental accompaniment. You Light Up My Life; A Rock and Roll Song; Micol's Theme; It's Just a Matter of Time; Hey Everybody; When I Look at You; From Me to You; Baby. I'm Yours; When the Lovelight Starts Shining Through His Eyes; End of the World; Your Love Broke Through; Hasta Mañana. WARNER BROS. BS 3118 \$6.98.



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GRAHAM PARKER AND THE RUMOUR: urgent, burning rock

money to pay her rent. And now, in *The Act*, she's knocking herself out on the stage of the Majestic on Broadway, playing Michelle Craig battling her way to stardom in Las Vegas after a broken marriage and a hapless love affair. Although I have never met her, I sometimes feel like sitting down with Miss Minnelli for a heart-to-heart talk and pleading with her: "Liza, Liza, stop burning yourself out like this. Stop getting mixed up with selfish saxophone players and philanderers and people who aren't worth your time. Stop giving your all to every second-rate man and third-rate song. Take it *easy*. Think it *over*."

On the cover of her latest record album, released just before she opened in The Act, Liza is shown on the deck of an ocean liner. Wearing a sexy evening gown and transparent plastic shoes and drinking champagne, she's apparently enjoying herself, yet from the contents of the record, I don't think the trip really did her much good. Even when she sings, in Tropical Nights, of a shipboard romance with a "macho muchacho" under a sky full of stars as "big as diamonds," she holds to a mood of relentless desperation. Most of the time Liza pushes herself to the limit in such rock-beat numbers as Jimi Jimi or, as in When It Comes Down to It, sells love like a product that just won't move off the shelf.

When she does ease up, though, how haunting the Minnelli style can be! I am thinking of the goose-pimples she raises with Stevie Wonder's I Love Every Little Thing About You, the way she pines for her man in Come Home Babe, her gentleness in Take Me Through, and her purring the moving melody of A Beautiful Thing. The last is one of a number of songs in this album attributed to Jim Grady, who is also heard playing electric and acoustic pianos and who made all the arrangements, which are big and brazen enough to be heard behind Liza. They have to be. P.K.

### JANE OLIVOR: Chasing Rainbows (see Best of the Month, page 113)

**GRAHAM PARKER AND THE RUMOUR:** *Stick to Me.* Graham Parker (vocals, guitar); the Rumour (vocal and instrumental accompaniment); other musicians. *Stick to Me; I'm Gonna Tear Your Playhouse Down; Problem Child; Soul on Ice;* and six others. MERCURY SRM-1-3706 \$6.98, (1) MC8-1-3706 \$7.95, (C) MCR4-1-3706 \$7.95.

### Performance: Fair to terrific Recording: Murky

Graham Parker's best songs have an urgency about them that is rare these days; in fact, I can't think of a rocker now working whose music burns quite the way Parker's does. If you're still unfamiliar with the man and think I'm exaggerating, I suggest you check out his last album, "Heat Treatment." Which is my sneaky way of letting you know that his longawaited third album, "Stick to Me," is something of a disappointment.

What happened is that after the entire album was on tape, Parker decided that it sounded too slick and scrapped the whole thing. With only five days to deliver a new record to his label, he, the band, and producer Nick Lowe redid it all from start to finish. In theory, given the driven nature of Parker's music, that should have been all to the good. Unfortunately, the result veers instead between sounding half-finished, which sinks the potentially electrifying rocker The New York Shuffle, and amateurishly overproduced, as on the album's longish centerpiece, The Heat in Harlem, which is reduced nearly to the level of a minstrel show by some obtrusively campy background vocalists.

Most of side one seems to have survived relatively unscathed, for which I am grateful, and at least three of the tunes on it—the title song, *Problem Child*, and *Soul on Ice*—can stand comparison with Parker and the Rumour's earlier efforts. "Stick to Me," then, isn't the Graham Parker masterpiece we hoped for. But there's no reason to believe that he doesn't still have one in him; all he needs is a better producer. S.S.

IGGY POP: Lust for Life. Iggy Pop (vocals); David Bowie (piano); other musicians. Lust for Life; Sixteen; Some Weird Sin; The Passenger; and five others. RCA AFL1-2488 \$7.98, AFS1-2488 \$7.98, © AFK1-2488 \$7.98.

### Performance: Shaddup, awready Recording: Murky

If you're not from Detroit it requires a real act of faith to appreciate Iggy Pop. It's all very (Continued on page 130)

# B-I-C VENTURI. The art of being way ahead without being way out.

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CIRCLE NO. 23 ON READER SERVICE CARD



well to talk about his vision of the darker recesses of the human soul, but it would be nice if he threw in some music (or rock-and-roll, which is not always the same thing) to go with it. The only time he ever accomplished that little trick was on "Raw Power," and that was basically a showcase for James Williamson's haunted guitar playing.

This new one, hard on the heels of "The Idiot"—which was so ridiculous that even diehard fans complained—is merely sad. The cover photo is a giveaway; Iggy looks (perhaps deliberately) like a *real* idiot. And the music inside . . . well, let's just say that the contempt performer/producer/Svengali David Bowie feels for both Iggy and their mutual audience has never been so obvious. The result is a collection of non-songs so mechanistic, unfeeling, and ugly as to make Kraftwerk sound like Robert Johnson in comparison.

*S*.*S*.

### RECORDING OF SPECIAL MERIT

**LEO SAYER: Thunder in My Heart.** Leo Sayer (vocals); instrumental accompaniment. Easy to Love; I Want You Back; It's Over; Everything I've Got; Thunder in My Heart; and five others. WARNER BROS. BSK 3089 \$6.98, (1) M8 3089 \$7.98. (2) M5 3089 \$7.98.

Performance: Excellent Recording: Excellent

Leo Sayer enjoys his work; his writing and performing show that clearly enough. And he passes his joy on with the haphazard generosity of a benign Typhoid Mary. "Thunder in My Heart" is full of the characteristic Sayer verve, especially in the title song, which is another of his expeditions into the unselfconsciously eccentric. Whereas he delivered his chart hit of last year, You Make Me Feel Like Dancing, in a hyena-like falsetto, here he performs Thunder in a basso-not-so-profundo that has a zany glee about it. I Want You Back finds him in Neil Sedaka territory-mellow hokum for the sentimentalists, impeccably performed. No one track is like another on this album, but all have the unifying joyful spirit. Recommended, and not to be taken se-P.R. riously at all, thank God.

SMALL FACES: Playmates. Small Faces (vocals and instrumentals); vocal and instrumental accompaniment. High and Happy; Never Too Late; Tonight; Saylarvee; Find It; Lookin' for a Love; and four others. ATLANTIC SD 19113 \$6.98, (1) TP-19113 \$7.98, (1) CS-19113 \$7.98.

Performance: **Disappointing** Recording: **Good** 

Small Faces is a band with longevity and several distinguished alumni—Rod Stewart and Ron Wood among others—but this album takes a long time getting off the ground, and then it rises for only a few feet. The music is laid-back British rhythm-and-blues, complete with funky harmonica and Otis Redding vocals, but all the while it is going on you keep waiting for the band to quit horsing around, work up some energy, and justify its reputation. Alas and alack, it never does. J.V.

PHOEBE SNOW: Never Letting Go. Phoebe Snow (vocals, guitar); instrumental accompaniment. We're Children; Electra; Majesty of Life; Something So Right; Ride the Elevator; (Continued on page 133)

### CIRCLE NO. 29 ON READER SERVICE CARD

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one is slightly cynical about things (and in America in 1978 I can't conceive of being otherwise), it's hard to view the meteoric rise of the Sex Pistols to the status of Genuine Phenomenon as anything other than the result of shrewd managerial reading of the public mood. Except for their visual trappings, they're certainly not doing anything that could be called remotely original, either musically or in their public pronouncements. So they're loud, crude, minimally skilled at their instruments; so they spit at queen-and-country, at the rock-and-roll tradition, at the music business, and at anyone rooted in the values of the Sixties. So what? The idea that kids should reclaim rock from the clutches of arrogant superstar tax exiles and balding corporate moguls dates back at least to David Bowie's All the Young Dudes and its contemptuous sneer at older brother "back at home with his Beatles and his Stones." The Pistols' stance of calculated obnoxiousness and musical primitivism is the same ploy every rocker from Elvis on down has utilized to garner publicity.

But, even granted all that, it would be a mistake to dismiss the Pistols as just this season's hype, for there's art lurking beneath the artifice of their debut album. Of course, to appreciate "Never Mind the Bollocks" vou have to have a certain tolerance for loud noises. You also have to understand something perhaps not readily apparent, which is that the Pistols are wittily well aware of the contradictions in what they're attempting, the most obvious of these being that to reach the mass audience they want they will have to seduce the very types they detest, especially once they invade America. But they go ahead anyway, in the songs E.M.I. and New York, knocking the record company that dropped them (because some execs believed they were seriously advocating anarchy) and sneering at the "bored old faggots" who are habitues of Max's Kansas City (the trend setters who have helped make punk rock, at least in the U.S., the Next Big Thing). Unless we're being kidded, how else to explain the theatrical panache with which the Pistols deliver such utterly ridiculous lines as "I'm a lazy sod," or the very idea of giving themselves surnames like Vicious and Rotten?

The blatant put-ons notwithstanding, however, the Pistols' political message comes across with undeniable power. It should be noted that, among other things, they happen to be the most legitimately influential protest songwriters in well over a decade; as with Bob Dylan, it hardly matters whether they are sincere at heart. God Save the Queen, which they released as a single just in time to spoil the Silver Jubilee for a lot of their countrymen, is something of a small rock masterpiece (as well as the strongest track on this album) and a remarkable revival of the kind of spleen-venting the Angry Young Men of the British theater were doing twenty years ago. As James Wolcott has observed, there isn't that vast a gulf between John Osborne and Johnny Rotten, and if you doubt it, listen to the way Rotten yowls "God save the Queen . . . we mean it, man!"

As you may have gathered. I don't find the Sex Pistols particularly threatening, for all their revolutionary fervor, Rotten is a firstrate rock-and-roll singing actor (his Cockney whine is almost cute), and though the band still has some growing to do, when they're on they have a drive and power reminiscent of the MC 5. "Never Mind the Bollocks" may be a little repetitious at times, but the best cuts are viscerally exciting and easily accessible rock by any standard. Still, by the rules of the game the Pistols are playing, if somebody, like me, who represents many of the values they claim to be rejecting comes to terms with them, it smacks of co-optation. And so, that I do rather like them indicates a failure on their part, it seems to me. I hope that when they bring their peculiarly English brand of sonic assault to these shores in person, they will do their damnedest to make me uncomfortable about my endorsement. After all, if I read them right, that's their job. -Steve Simels

SEX PISTOLS: Never Mind the Bollocks, Here's the Sex Pistols. Johnny Rotten (vocals); Sid Vicious (bass); Paul Cook (drums); Steve Jones (guitar). Holidays in the Sun; Liar; No Feelings; God Save the Queen; Problems; Seventeen; Anarchy in the U.K.; Bodies; Pretty Vacant; New York; E.M.I. WARNER BROS. BSK 3147 \$6.98. and four others. COLUMBIA JC 34875 \$7.98, (8) JCA 34875 \$7.98, (C) JCT 34875 \$7.98.

Hill Skerro R

Performance: Good Recording: Good

Left to her own considerable devices, Phoebe Snow could, in another album or so, become a considerable bore. I had to stifle a few yawns here and there when I listened to this one. She's styled her voice into basic Della Reese with pop-pearls that reflect shades of urban blues and gospel. Her songs and their concerns, however, remain those of a white middle-class girl. At her worst, in *Electra* for instance, she can lapse into the kind of bluestocking melodrama that went out with old Bette Davis films.

Ms. Snow is still a very persuasive and affecting performer/composer in such things as her own We're Children and Paul Simon's simple, drifting ballad Something So Right. Her musicianship remains above reproach, but the slow slide into affectation seems to have already begun. That's too bad, because she's one of the better talents around. P.R.

### JOHN STEWART: Fire in the Wind (see Best of the Month, page 113)

THIN LIZZY: Bad Reputation. Thin Lizzy (vocals and instrumentals); instrumental and vocal accompaniment. Soldier of Fortune; Bad Reputation; Opium Trail; Southbound; and five others. MERCURY SRM-1-1186 \$7.98, (a) MC8-1-1186 \$7.95, (c) MCR4-1-1186 \$7.95.

#### Performance: Fine Recording: Okay

Thin Lizzy interests me when they dispense the kind of backroom, surrealist, amped-up r-&-b that has gotten them compared to their betters-on the order of Van Morrison and Bruce Springsteen-and they bore me when they plod stiffly through the usual heavy-metal and blues clichés, which is more often the case. This time out they interest me mostly during Southbound and Dancing in the Moonlight, although leader Phil Lynott has gotten so heavy-handed about his patented Righteous Indignation shtick that some of his songs in this vein (particularly Soldier of Fortune) become endearing in spite of themselves. It's also kind of a kick to find Mary Hopkin, of all people, lurking about as a background singer. (Her husband Tony Visconti produced the album, but its rather thin sound suggests he's not really the right producer for this band.) A pleasant enough record, overall-just don't expect anything as memorable as The Boys Are Back in Town, the single that made their fortune. Someone once observed that everyone has one good novel in him; there may be more than one great song in Thin Lizzy, but I'm not holding my breath. S.S.

TOM WAITS: Foreign Affairs. Tom Waits (vocals, piano); Bette Midler (vocal); Jim Hughart (bass); Shelly Manne (drums); other musicians. Cinny's Waltz; Muriel; I Never Talk to Strangers; Jack and Neal/California, Here I Come; A Sight for Sore Eyes; and four others. AsyLUM 7E-1117 \$6.98, (\*) ET8-1117 \$7.97.

Performance: Fascinating Recording: Very good

Tom Waits is a somewhat controversial figure. His partisans say he is a major American artist while his detractors portray him as a



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fellow with an irritating voice who writes dreary, tuneless songs about sleazy people. After hearing this album—my first experience of Waits—I lean towards his partisans' view. He is a perplexing but highly interesting artist and a gifted writer—an island unto himself.

Admittedly, Waits' voice is at first offensive. He growls, grunts, rasps, slurs words, and at times seems very close to belching. It sounds as though the basis for his assumed voice is Louis Armstrong's famous growls, for Waits too works in a jazz setting. His mood pieces are immeasurably aided by the fine jazzmen he has backing him. To keep the improvisations fresh and to add a sense of immediacy, his vocals were done live with the musicians, without overdubbing.

Waits' songs are about losers, juvenile and adult delinquents, sluts, junkies, small-time criminals, and car freaks. Some of his best lines derive from the experience of highway driving, as in Jack and Neal, which is about two men and a woman on their way to California (where they won't fit in because they don't fit anywhere); on the lonely road they find that "the gas pumps look like tomb-stones . . . ." Burma Shave recalls the old roadside jingles as it tells of a kid picking up a girl in a one-horse town, and a startling image-"the road was like a ribbon and the moon was like a bone"-prefigures her death in a wreck. Potter's Field is a monologue with music by arranger/conductor Bob Alcivar in which violent images of pain, fear, and death are spewed out by a drunken blind man. Alcivar's arrangement and the jazz-clarinet solos by Gene Cipriano are dramatic and powerful. Muriel is a gentle love ballad, and I Never Talk to Strangers, a duet with Bette Midler, is a poignant portrait of two losers who just may win this time

There's no doubt that Waits has talent, an often arresting talent. The new listener may have to work a bit to appreciate him, but the rewards are well worth the effort. J.V.

DON WILLIAMS: Country Boy. Don Williams (vocals. guitar); Joe Allen (bass); Jim Colvard (guitar); Buddy Spicher (fiddle); other musicians. I'm Just a Country Boy; Louisiana Saturday Night; Overlookin' and Underthinkin'; Sneakin' Around; and six others. ABC/Dor DO-2088 \$6.98, (2) 8310-2088(H) \$7.95. (2) 5310-2088(H) \$7.95.

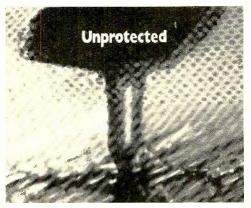
Performance: **Right soothin'** Recording: **Good** 

If Donovan had taken lessons in being a mellow fellow from Don Williams, Donovan might still be a household name. Williams continues to prove that there is quite an audience for a mellow fellow; he's attracting more and more attention outside of country music and still selling like hotcakes inside it. His is a soft-country image and delivery, but there's a hard-country attitude behind it: he dons no Nashville Sound pop-exploitation frills but keeps the basic acoustic-and-steel country sound and records it with the sharpest studio musicians in town-in his own terms, that is, he doesn't do a hell of a lot of compromising. One problem I have with him is that I keep looking for him to find another song as impressive as his own The Shelter of Your Eyes, which isn't fair, since those don't come along often for anyone.

"Country Boy," in what may seem an odd stroke, sort of centers around some songs by (Continued on page 136)

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Sound Guard preservative—Sound Guard cleaner—Sound Guard Total Record Care System Sound Guard is Ball Corporation's registered trademark. Copyright © Ball Corporation, 1977. Muncie, IN 47302 CIRCLE NO. 11 ON READER SERVICE CARD Left to right, Freddie Hubbard, Tony Williams, Wayne Shorter, Herbie Hancock, and Ron Carter

### A Very Special Quintet



N 1963, two years after Donald Byrd brought him to New York from Chicago and after a brief stint with Eric Dolphy, Herbie Hancock joined Miles Davis. The cool West Coast sound of the Fifties had begun to lose its grip on jazz fans by the end of the decade, resulting in something Riverside Records successfully tagged as "soul jazz," an exceedingly funky, heavily gospel-tinged style exemplified by the music of the Cannonball Adderley Quintet and such pianists as Ray Bryant and Junior Mance.

When Hancock arrived in New York, a cadre of forward-thinking musicians, disorganized but fiercely devoted to their cause, were building an underground jazz movement. They took their cues from John Coltrane and Ornette Coleman (which may explain why the saxophone is the most common instrument among today's avant-garde) while incorporating lessons learned from such earlier modernists as Charlie Parker, Bud Powell, Charles Mingus, and Miles. Though Hancock did not become a part of that movement, he clearly revealed his empathy for it as both performer and composer (the simplistic *Watermelon Man* notwithstanding).

Having proved his considerable talent and established impressive credentials through his work with Miles and his own recordings on Blue Note, Herbie Hancock switched to the pop-oriented Warner Bros. label in 1969 and began a gradual dejazzification program that continued and intensified later on Columbia. By 1973, when his album "Headhunters" was released, Hancock's group of fine musicians had become electronically souped-up beyond recognition; he was after the youth market, and he made no bones about it: "I realized that I could never be a genius in the class of Miles, Charlie Parker, or Coltrane," he explained, "so I might as well forget about becoming a legend and just be satisfied to create some music to make people happy.

His junk music did not make his jazz audiences happy, but it made him highly marketable, gained him an entrée to the pop world, and fattened his purse. He was, of course, not the only jazz man to defect, but his enormous commercial success made him the chief apostate in the minds of many jazz writers and fans.

In 1976 a "Retrospective of the Music of Herbie Hancock" was presented at New

York's City Center as part of the Newport Jazz Festival; a segment of that concert brought together Hancock, Freddie Hubbard, Wavne Shorter, Ron Carter, and Tony Williams. All but Hubbard had a past association with Miles Davis, and all but Carter had sought and obtained a good measure of POPularity by taking rock in hand, throwing integrity to the wind, and easing on down the electronic road. (Carter had flirted with commercialism, to be sure, but his reputation remained intact.) A recording of the City Center concert was issued last year as a Columbia album titled "V.S.O.P." (PG-34688 two discs), which we were told stood for "Very Special One-Time Performance." Half of that album was devoted to the quintet (now known as V.S.O.P.), the other half to Hancock's electrically powered septet and an intermediary group.

ALTHOUGH Hancock played an electric piano on the quintet tracks (even the best of them has an artificial sound), it was a delight to hear these fine players create legitimate jazz once again. Obviously, it delighted them as well, for 1977 saw them touring as a unit. Now, from that tour, comes a second album, recorded last July at concerts in Berkelev and San Diego, California. Hancock has reverted to the acoustic piano, and the small residue of crossover one detected in the first album has been totally filtered out to produce the purest jazz. The program contains compositions by each member of the quintet, in a variety of moods, tempos, and colors, all performed with uniform excellence. This album is so totally rewarding that I am hard put to select any favorite tracks, but I did find myself returning to Jessica, a slow, lyrical Hancock tune, which he performs as a duet with Carter, and Dolores, an exuberant number by Wayne Shorter on which everybody stomps the light fantastic. -Chris Albertson

V.S.O.P.: The Quintet. Freddie Hubbard (trumpet, flugelhorn); Wayne Shorter (soprano and tenor saxophones); Herbie Hancock (acoustic piano); Ron Carter (bass); Tony Williams (drums). One of a Kind; Jessica; Lawra; Dolores; Third Plane; Byrdlike; Darts; Little Waltz. COLUMBIA C2 34976 two discs \$9.98, (a) C2A 34976 \$9.98, (c) C2T 34976 \$9.98.

Bob McDill, whose viewpoint is a little closer to a swaggering bar-fighter than to mellow. Of course, when Williams is through with McDill's songs, they're mellowed out somewhat, and several of the other songs counter the swagger anyway, so it comes out as a mellow-fellow album all right. You may find that the songs tend to run together in stretches, and you may forget (and not care enough to check) which one you're listening to at a given moment-but that's not too bad with Williams. You wind up with the impression that the whole record has a nice, melodious flow to it, as if it were all one nice, long, not too complicated tune. That can be a rather pleasant impression. N.C.



### RECORDING OF SPECIAL MERIT

KENNY BURRELL: Ellington Is Forever, Volume Two. Kenny Burrell (guitar); Nat Adderley, Thad Jones (cornets); Snooky Young (trumpet); Quentin Jackson (trombone); Joe Henderson, Jerome Richardson, Gary Bartz (saxophones); Jimmy Smith (organ); Roland Hanna, Jimmy Jones (pianos); Philly Joe Jones (drums); Ernie Andrews (vocals); other musicians. Take the "A" Train; Satin Doll; Come Sunday; Azure; Orson; Jeep Is Jumpin'; Solitude; Prelude to a Kiss; and eight others. FANTASY F-79008 two discs \$8.98, 8160-79008 (Z) \$9.95, 5160-79008 (Z) \$9.95.

#### Performance: **Smooth-flowing** Recording: **Very good**

Kenny Burrell first gained wide attention in 1955, when he joined Dizzy Gillespie. He has played under other leaders since then—notably Benny Goodman and Oscar Peterson and recorded with a veritable who's who of jazz, but mostly he has been on his own. In the late Sixties to early Seventies he owned the Guitar, a cozy little club in New York City where some of the finest exponents of that instrument, Burrell included, took turns making soft sounds. Sad to say, the Guitar played its coda all too soon, and Burrell moved on to California.

This is Burrell's second recorded tribute to Ellington, and it combines new recordings with previously unissued material from the sessions that supplied the first volume (Fantasy F-79005, two discs). I haven't heard the first set, but if it is half as good as the followup album it should be in the collection of all who cherish tasteful, straightforward, mainstream jazz. The album opens with a solo performance by Burrell and closes with one by pianist Jimmy Jones, who also served as musical director. Jones' solo piece is Orson, a little-known tune the Duke wrote for a mid-Forties Parisian stage production starring Or-(Continued on page 138)



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CIRCLE NO: 61 ON READER SERVICE CARD

son Welles as Faust and Eartha Kitt as Helen of Troy. This and Burrell's sensitive rendering of *Azure* provide a rich frame within which the album's formidable participants perform with great warmth and skill—in groups ranging from duo to octet—some of Ellington's better-known compositions.

I would be remiss if I didn't at least mention vocalist Ernie Andrews. Andrews is heard on two tracks here, and he was featured on three tracks in a recent release by the Frankie Capp/Nat Pierce band ("Juggernaut," Concord Jazz CJ-40), but he is too good not to be recorded on his own. C.A.

**KEITH JARRETT:** *The Survivors' Suite.* Keith Jarrett (piano, soprano saxophone, bass

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recorder, celeste, osi drums); Dewey Redman (tenor saxophone, percussion); Charlie Haden (bass); Paul Motian (drums, percussion). *The Survivors' Suite*. ECM ECM-1-1085 \$7.98, (a) 8T-1-1085 \$7.98, (c) CT-1-1085 \$7.98.

### Performance: **Disappointing** Recording: **Excellent**

The title somehow implies that this is an ambitious work by the inventive Keith Jarrett, but anyone expecting that will be disappointed, especially after such past works of his as *Luminessence* and *Mirrors*. Nevertheless, *The Survivors' Suite* contains much that is worth your time. It is an extended quartet performance, loosely structured and apparently

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mostly improvised. Dewey Redman, whose long-time association with Jarrett has produced some interesting results, has Coltrane's tone, but his style favors that of Ornette Coleman, a former school-mate. Listening to Redman's records over the past decade, I've noticed a marked improvement in his technique and a growing aesthetic quality, but the fortysix-year-old saxophonist has yet to develop a recognizable style. The Jarrett/Redman combination is a good one, however, and their quartet with bassist Charlie Haden and drummer Paul Motian remains a distinguished one. If The Survivors' Suite is disappointing, it is only because one has come to expect the exceptional from Jarrett. It is still a high-caliber performance when measured against the majority of "jazz" releases today. C.A.

HELEN MERRILL: Autumn Love. Helen Merrill (vocals); instrumental accompaniment. Autumn in New York; No Other Love; Goodbye; September in the Rain; Someone to Watch Over Me; Autumn in Rome; and six others. CATALYST CAT-7912 \$6.98, CLT-7912 \$7.98.

Performance: **Cozy** Recording: **Good** 

Helen Merrill has one of those husky, dusky voices and knows how to use it to put over this concert of old favorites on the theme of autumn. The singer evokes the colors of the season and drowsy afternoons by a crackling fire as she sings about September in the rain, autumn in New York, autumn in Rome, autumn leaves, and so on. She manages somehow to convert the inevitable September Song from a heartbreaking ballad of regret over the onset of age into a kind of cozy adult lullaby. Merrill has been cultivating her particular approach on records for some twenty-five years and she is evidently quite a favorite in Japan, where this album was put together with accompaniment by what the liner notes describe as "some of the top sidemen on the Japanese jazz scene." There are a few sticky moments—that's in the very nature of the program-but for the most part the going is agreeable and the special mood is artfully sustained. PK

MEL TORMÉ: Mel Tormé Loves Fred Astaire. Mel Tormé (vocals); the Marty Paich Dek-Tette (instrumental accompaniment). A Foggy Day; They All Laughed; A Fine Romance; Something's Gotta Give; Let's Call the Whole Thing Off; The Way You Look Tonight; and six others. BETHLEHEM <sup>®</sup> BCP-6022 \$6.98.

Performance: **On target** Recording: **Very good mono** 

Mel Tormé will be fifty-three this year, and he has been singing since he was four. They used to call him "the Velvet Fog" for reasons evident on these 1956 recordings where he is accompanied by some of the top West Coast musicians of the period. The program is a familiar one, mostly songs by Irving Berlin and the Gershwins, and Tormé breezes through it with characteristic style and grace. As Paul Kresh points out in his liner notes, the accompaniment by Marty Paich and his Dek-Tette has a Fifties sound, yet it somehow seems quite up to date. Tormé himself sounds as timeless as the material he sings, and not the least of his virtues is that he pays attention to and understands the lyrics. That's rare today,

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but then so is the kind of lyric Fred Astaire used to sing. I hope this album does not disappear from the catalog again. C.A.

RALPH TOWNER: Solstice Sound and Shadows. Ralph Towner (guitars, piano, French horn); Jan Garbarek (flute, soprano and tenor saxophones); Eberhard Weber (bass, cello); Jon Christensen (drums). Distant Hills; Solstice; Balance Beam; and two others. ECM ECM-1-1095 \$7.98, © CT-1-1095 \$7.98.

### Performance: **Soft and airy** Recording: **Excellent**

This album features the same quartet that performed on Ralph Towner's "Solstice" (ECM 1060), and it has the same ethereal quality to it. It is high-caliber mood music with gently drifting sounds that seem to have neither origin nor destination but just float around each other and through your head. There is something transitory about this kind of music; it doesn't stay with you in the way that, say, a Clifford Brown solo might, and when the record has played out only a mood lingers. C.A.

TEDDY WILSON REVAMPS RODGERS AND HART. Teddy Wilson (piano). Manhattan; Thou Swell; My Heart Stood Still; You Took Advantage of Me; Isn't It Romantic; You Are Too Beautiful; There's a Small Hotel; and six others. CHIAROSCURO CR 168 \$6.98.

Performance: Lovely Recording: Very good

Richard Rodgers wrote some of his most alluring and sophisticated tunes during the years when his lyricist was Lorenz Hart. The words and music in these songs merge so seamlessly that it's hard to think of My Funny Valentine, Isn't It Romantic?, or There's a Small Hotel without the lyrics as well as the melody. Yet the tunes themselves are as fresh and ingratiating as ever. They can stand on their own, at least when the right performer deals with them, despite all the arrangements that massage our ears in restaurants, supermarkets, elevators, and even banks.

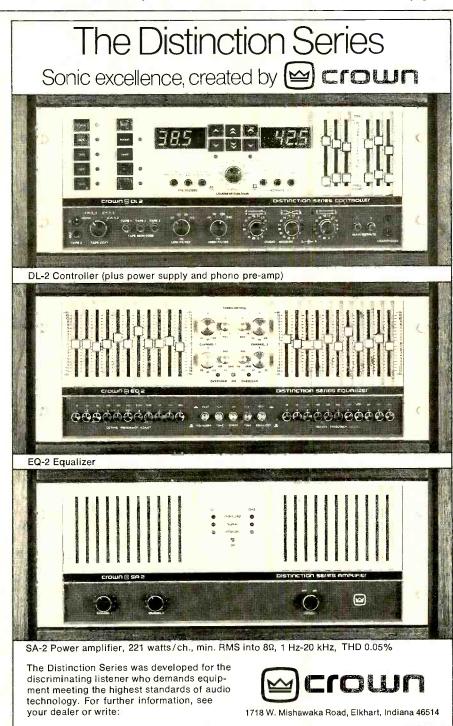
Teddy Wilson, one of the undisputed masters of jazz piano, here runs through three decades of these tunes, from Manhattan, a hit of the Garrick Gaieties in 1925, to Everything I've Got, first heard in 1942 in By Jupiter, one of the last of the Rodgers-and-Hart collaborations. The album is called "Teddy Wilson Revamps Rodgers and Hart," but Wilson doesn't really revamp these old favorites at all. What he does, with all the dexterity and ingenuity at his considerable command, is to celebrate them at the piano, an instrument he has been molding to his will since he first turned up at the keyboard in a Detroit night club forty-four years ago. The results make for delicious listening. P.K.

TEDDY WILSON: Statements and Improvisations, 1934-1942. Teddy Wilson (piano); Roy Eldridge, Jonah Jones (trumpets); Artie Shaw. Benny Carter, Johnny Hodges, Leon "Chu" Berry (reeds); Red Norvo (xylophone); Mildred Bailey, Billie Holiday (vocals); other musicians. Don't Blame Me; Body and Soul; Rosetta (two versions); More Than You Know; Between the Devil and the Deep Blue Sea (two takes); These Foolish Things (two versions); and eight others. SMITHSON-IAN COLLECTION I ROS \$6.50 (from the Smithsonian Collection, P.O. Box 23345, Washington, D.C. 20024).

### Performance: Swing classics Recording: Good, quiet transfers

Teddy Wilson may well be the ultimate swing pianist, solo or accompanied, and these recordings—made during eight years of his prime—are as representative a collection of his artistry as could be assembled on one disc just from material in Columbia's vaults. Wilson also made many wonderful Victor recordings with the Benny Goodman trio and quartet, an association that gained him his largest following and yielded many exceptional performances. It should have been possible for the Smithsonian, as an independent label, to lease a couple of these sides and thus give us a collection neither RCA nor Columbia alone could duplicate—such flexibility is, after all, what separates the product of the independent lessee from in-house reissues. As it is, Columbia has not been negligent in making its classic Teddy Wilson sides available: quite a few of them are turning up in the five-volume Lester Young series, and "Teddy Wilson and His All-Stars" (Columbia KG 31617), an excellent set of thirty-two sides from 1935-1940, was issued in 1973.

Nevertheless, "Statements and Improvisations" is a fine album (with this kind of material, how could one go wrong?). The notes by pianist Dick Katz are informative and well (Continued on page 142)



CIRCLE NO. 18 ON READER SERVICE CARD

### Stride Pianist Fats Waller: Dee-licious

T HOMAS WRIGHT "FATS" WALLER was one of the royal trio of Harlem stride pianists, the other two being James P. Johnson, dean of the style as well as Waller's teacher and patron, and the pugnacious Willie "The Lion" Smith. Of the three, Waller was the only one to become a star, but he was more famous for his humor and prankish vocal gutting of the lyrics of the pop tunes he recorded than for his talent at the keyboard.

Waller's reputation as a vocalist (at its height from 1934 to his early death in 1941) limited his purely instrumental recordings. His piano solos—full of technique, imagination, humor, and delicacy—were, like his organ essays, sporadically recorded during his lifetime and virtually lost among the enormous number (some four hundred) of pop records he made with his combo, the Rhythm. But now an excellently remastered Bluebird package gives us, in chronological order, all the piano solos he recorded from 1929 to 1941.

The stride style is often confused with ragtime, which preceded it, and boogie-woogie, which followed it. Its characteristics were a versatile left hand playing muscular, sassy, rhythmic bass octaves and chords to support and complement the right hand's bold, flirtatious variations on the tune (which sometimes featured classical allusions). Scott Joplin's ragtime style combined black rhythms with European melodic and harmonic concepts, and though stride pianists appropriated many of Joplin's ideas, they disregarded his medium-tempo orthodoxy and polythematic construction and broadened the syncopation. Waller. Johnson, and Smith all had a working knowledge of the classics and some formal training as well as years of experience backing cabaret singers whose repertoire ranged from vaudeville patter songs to light opera.

They all despised boogie-woogie, which took the most obvious elements of the stride style and reduced them to what Waller contemptuously called "thirty-two bars of absolutely nothing."

In the hands of the royal trio and the halfdozen other pianists of the day who could play it, stride was capable of being brawny, tender, dignified, and raffish all at once. The style was almost wholly dependent on the brilliance and sensitivity of its major interpreters, which is why it is so rarely heard today. But it made a great impression on such subsequent jazz greats as Art Tatum and Thelonious Monk, who reshaped some of its elements into their own styles.

The delicious Bluebird collection begins with fifteen piano solos the twenty-five-yearold Waller recorded in 1929. The first two are Handful of Keys and Numb Fumblin', which

### stride was brawny, tender, dignified, and raffish all at once.

were made following a pick-up instrumental combo date that Waller wrung himself out of a three-day binge to play. *Keys* is a hot and frisky stride piece, and *Fumblin*' is a blues number that is resolved by a long, remarkable arpeggio.

Six titles cut in August 1929 show Waller's skill as a melodist and composer. Ain't Misbehavin' (later his theme song), Sweet Savannah Sue, and I've Got a Feeling I'm Falling were all written for Harlem night-club floor shows, which at the time were lavish productions, mini-musicals that featured some of the best singing and dancing talent around. By 1941 Waller had grown tired of playing *Misbehavin'* over and over again, and even went so far as to give it a tired and bitter performance at slow tempo—all the while making cracks about his alimony payments. But in the 1929 recording it seems as fresh as a first kiss.

Sue is a delightful melody it's good to have available again. (The young French music critic and jazz buff Hughes Panassié asked Waller to play it for him during a visit to Paris in 1932, but Waller—used to dashing off tunes for quick money—had already forgotten it.) Falling is a perfect example of the way Waller could combine bravado and shyness in his melodies. Outwardly a roaring yea-sayer to the sensual life, he was privately religious and never stopped mourning his mother's death in 1920; memory of it could move him to tears years later.

Love Me or Leave Me, Ruth Etting's hit, was one of a series of pop tunes Waller was assigned to play by Victor Records (he was not then under contract to them but the label called on him frequently). His performance puts the song into stride terms while remaining faithful to the melody. Gladyse and Valentine Stomp, both written by Waller, are pure stride, and both are the kind of showpiece that a "tickler" would show off to his peers to demonstrate his prowess. Other highlights of that most productive year include Baby! Oh Where Can You Be (a pop tune) and the emotionally revealing My Feelings Are Hurt (an original).

When the Great Depression hit the next year. Waller felt the pinch. His spendthrift ways largely depended on a multitude of quick recording dates, but in 1930 he recorded only two piano sides, *St. Louis Blues* and *After You've Gone*, both duets with the practically anonymous Benny Payne. The two pianists occasionally get in each other's way in what seems to have been a slapdash session. (The original idea had been for the great Jelly Roll Morton to play a standard tune old-style followed by Waller's stride version, with the two styles blending in a reprise. But Jelly never showed up and Payne was drafted instead.)

N 1934 Waller was signed by Victor as an exclusive artist. Four solos from that year, all Waller originals, show him to have polished his technique while maintaining his enormous sense of fun. On African Ripples he kids George Gershwin's modulations; Clothes Line Ballet, Alligator Crawl, and Viper's Drag are impressionistic romps (the last a musical portrayal of the effects of marijuana). All four pieces are loaded with good humor, and Waller's love of music and pleasure in playing makes them most enjoyable.

Russian Fantasy and E-flat Blues both contain something unusual for Waller—flubs. His gigantic capacity for drink was apparently exceeded on this 1935 date, resulting in a few moments when he hits a wrong note or plays himself into a corner—though he\_plays himself out again with verve.

Waller's volcanic mixture of gaiety and melancholy is fully displayed in the solos he recorded in 1937 and 1941. The rigors of touring and his excessive eating and drinking began to catch up with him. His playing was mature but moody, and a single solo could be alternately florid and spare. It is a truism that major (male) artists view their instruments as a mistress—sometimes a lady, sometimes not—and sometimes just as an obligation. All three attitudes seem present at different moments in *Keepin' Out of Mischief Now* (a fine Waller tune that at first seems to deserve more effort than he gives it), his showstopping rendition of *Georgia on My Mind*, and his courtly, gallant essay of *Tea for Two*.

Carolina Shout, recorded in 1941, is the only example of Waller playing a composition by his mentor James P. Johnson. Johnson wrote the gay, bold, sassy piece in 1914, and Waller played it for him and Willie Smith when Fats auditioned to join the stride fraternity. Honeysuckle Rose, like Ain't Misbehavin', is one of the all-time great Waller compositions; written in the late Twenties, it too came to be a burden to him in his years of stardom when he was forced to play it to exhaustion. Ring Dem Bells, a salute to his pal Duke Ellington, is a fine example of the delicate and exquisite balance Waller was able to maintain between the serious and the kidding.

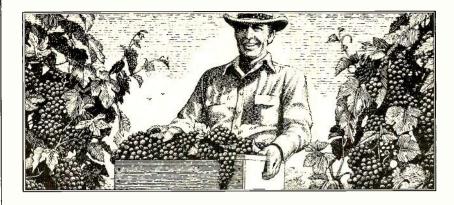
As a commercially successful musician, Fats Waller managed to entertain and yet remain true to his sense of music. As a man he knew and immensely enjoyed the real world, but the boy within him saw, with a child's clarity, life's emptinesses and sorrows and shortcomings. He used humor both as weapon and as defense against the opposing tugs of the worlds of sense and spirit. His pop recordings with the Rhythm and his joshing vocals show that humor but not, as many of these piano solos do, the conflicts it arose from. Alone at the keyboard Fats found both solace and challenge. With this collection, the fond myth of Waller as a mere clown will have to give way to a more serious (but not solemn) evaluation of his art. "Piano Solos, 1921-1941" offers a long overdue opportunity to revise Waller's reputation and mark him down as a master of American music.

#### -Joel Vance

FATS WALLER: Piano Solos, 1929-1941. Fats Waller (piano); Benny Payne (piano, on St. Louis Blues and After You've Gone). Handful of Keys; Numb Fumblin'; Ain't Misbehavin'; Sweet Savannah Sue; I've Got a Feeling I'm Falling; Love Me or Leave Me; Gladyse; Valentine Stomp; Waitin' at the End of the Road; Baby! Oh Where Can You Be; Goin' About; My Feelings Are Hurt; Smashing Thirds; My Fate Is in Your Hands; Turn On the Heat; St. Louis Blues; After You've Gone; African Ripples; Clothes Line Ballet; Alligator Crawl; Viper's Drag; Russian Fantasy; E-flat Blues; Keepin' Out of Mischief Now; Stardust; Basin Street Blues; Tea for Two; I Ain't Got Nobody; Georgia on My Mind; Rockin' Chair; Carolina Shout; Honeysuckle Rose; Ring Dem Bells. BLUEBIRD M AXM2-5518 two discs \$9.98, (i) AXS2-5518 \$9.98, (ii) AXK2-5518 \$9.98.

(Joel Vance's book, Fats Waller: His Life and Times, was published late last year by Contemporary Books, Inc., Chicago.)

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CIRCLE NO. 27 ON READER SERVICE CARD



SCOTCH RECORDING TAPE. THE TRUTH COMES OUT. written, the discography is detailed and accurate, and the sound is good. C.A.



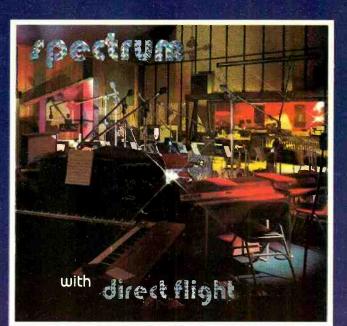
CLOSE ENCOUNTERS OF THE THIRD KIND (John Williams). Original-soundtrack recording (see The Pop Beat, page 58)

CUT! OUT TAKES FROM HOLLYWOOD MUSICALS. Volume 3. Meet the Beat of My Heart; Could You Pass for Love; Feelin' Like a Million; When My Sugar Walks Down the Street (Judy Garland). Somewhere There's a Someone (Roger Edens, Judy Garland). Why Do I Love You? (Irene Dunne, Allan Jones). I'd Do Anything for You (Red Skelton, Rags Ragland, Ben Blue, Ann Sothern). Say It with a Kiss (Maxine Sullivan, Dick Powell, Louis Armstrong). And nine others. OUT TAKE OTF-3 \$6.98 (plus 50¢ handling charge from Out Take Records, Inc., P.O. Box 298, Ansonia Station, New York, N.Y. 10023).

Performance: Back to the dustbins Recording: Bearable

This is the third volume of out-takes from "Hollywood's Greatest Musicals" gleaned from cutting-room floors which had already been swept pretty clean to fill the first two volumes. The editorial decisions that led to the dropping of Alice Faye singing I'll See You in My Dreams from Rose of Washington Square, or Helen Traubel exerting her leonine gifts on the mousy melody of Dance My Darlings in Deep in My Heart, or Howard Keel singing Music on the Water in his big silly voice for two minutes in Pagan Love Song were probably pretty sound judgments in the first place. On the other hand, I was delighted to hear Lena Horne in Ain't It the Truth, which was excised from the movie of Cabin in the Sky but later turned up in Harold Arlen's score for Jamaica; Judy Garland, Gene Kelly, and George Murphy sound thoroughly exhilarating in the finale removed from For Me and My Gal after the first sneak preview; and it is fun to hear Frances Langford rehearsing Something's Gotta Happen Soon, which apparently did not make it through the final version of Broadway Melody of 1936. There are some happy moments featuring the voices of Maxine Sullivan, Betty Grable, and Ethel Merman-who, even at her worst, gets her hooks into a number and doesn't let go until she puts it over.

There's also a generous sprinkling of Judy Garland, not always at her best, and a "bonus" finale during which she chuckles her way through a Roger Edens monologue about a technicolor tour of the globe. Considering some of the original sources (some of this stuff must have come out of back-lot trash cans), the sound is better than might have been expected. P.K. Apart from sublime musical performances, what distinguishes these records from all the others you'll buy for Christmas?





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CIRCLE NO. 19 ON READER SERVICE CARD



Reviewed by RICHARD FREED • DAVID HALL • GEORGE JELLINEK • PAUL KRESH STODDARD LINCOLN • ERIC SALZMAN

BAX: Fantasy Sonata for Viola and Harp; Sonata for Viola and Piano. Emanuel Vardi (viola); Margaret Ross (harp); Abba Bogin (piano). MUSICAL HERITAGE SOCIETY MHS 3613 \$4.95 (plus \$1.25 handling charge from Musical Heritage Society, Inc., 14 Park Road, Tinton Falls, N.J. 07724).

#### Performance: Eloquent Recording: Very good

MHS has been our chief supplier of Bax, in the form of recordings from the English Lyrita catalog. That this disc was recorded in New York by MHS itself is worth noting, for it was, after all, when the music of Carl Nielsen finally began to be recorded outside of Denmark that it took its place in the "permanent" international repertoire, and one now hopes for as much for Bax-whose Tintagel alone, one would think, would assure him the worldwide popularity his music has so far failed to command. In any event, the two works offered here are as meaty and expressive in their intimate way as the symphonies and tone poems are on their grander scale. The harp, in the Fantasy Sonata, is neither accompaniment nor embellishment, but full participant in a dialogue whose depth and shifting moods easily sustain its nearly half-hour length. The viola-piano sonata might also have been headed "Fantasy," for it is very much in the same vein, though with a more pronounced folk flavor in spots and even more pervasively in-

Explanation of symbols:

- $\mathbf{R}$  = reel-to-reel stereo tape
- (8) = eight-track stereo cartridge
- **(C)** = stereo cassette
- = quadraphonic disc
- $\mathbf{\underline{R}}$  = reel-to-reel quadraphonic tape
- $[\mathbf{8}] = eight$ -track quadraphonic tape

Monophonic recordings are indicated by the symbol  $\boldsymbol{W}$ 

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

trospective. Both works are given the most eloquent performances, and the sound is very good indeed. *R.F.* 

BEETHOVEN: Symphony No. 3, in E-flat Major, Op. 55 ("Eroica"); Coriolan Overture, Op. 62. London Philharmonic Orchestra, Bernard Haitink cond. PHILIPS 6500 986 \$8.98, © 7300 459 \$8.98.

### Performance: Cheerful Recording: Clear and charming

This is part of the Haitink Beethoven cycle on Philips that grew out of a successful series of concerts with the London Philharmonic in 1974. The outstanding qualities here are cheerful good humor, clear thinking on a tidy scale, and consistency. The fearsome Beethovenian thunderbolts appear out of basically sunny skies; the Funeral March is meditative instead of tragic, the scherzo romps right along, and the finale is festive. If that is the way you like your Beethoven, this is the recording for you. E.S.

**BERLIOZ:** Harold in Italy, Op. 16. Donald McInnes (viola); Orchestre National de France, Leonard Bernstein cond. ANGEL S-37413 \$7.98.

Performance: **Urgent** Recording: **Very good** 

**BERLIOZ:** Harold in Italy, Op. 16. Pinchas Zukerman (viola); Orchestre de Paris, Daniel Barenboim cond. COLUMBIA M34541 \$7.98.

Performance: Atmospheric Recording: Good

**BERLIOZ:** Symphonie Fantastique, Op. 14. Orchestre National de France, Leonard Bernstein cond. ANGEL □ S-37414 \$7.98.

### Performance: **Brooding, savage** Recording: **Impressive**

The views of Berlioz's *Harold in Italy* set forth in the new recordings by Leonard Bernstein and Daniel Barenboim are about as sharply contrasted, interpretively and sonically, as I could imagine. While Bernstein chooses to emphasize the impassioned aspect of Harold/Berlioz's response to his Italian experiences, it is the delighted sightseer-poet that emerges in Barenboim's reading. Particularly effective in the latter is the slower-thanusual tempo in the opening pages, which enhances the grandeur of this musical mountain scene. The third-movement mountaineer's serenade comes off deliciously by virtue of both the playing and the placement of the allimportant solo winds. Both Barenboim and Bernstein make a wild affair of the final brigands' episode. On the whole, it is Bernstein's reading that is the more urgent and involved, Barenboim's the more detached.

The soloists' timbre and manner of performance match the respective conductors' conceptions-Zukerman's viola-protagonist sings in a high, clear, volatile tenor, while McInnes instrument is the more throatily romantic. The recording qualities too both befit and to some extent determine the character of what emerges from the loudspeakers. The multiple miking seems quite evident in the Columbia disc, what with the prominence of the winds in the opening pages and in the serenade and the somewhat overbearing horns-as-bells in the processional. The Angel sound is, to my ears, especially good in terms of stereo depth perspective and the solid bass line, as well as the lifelike low-end transients in the orgiastic finale. While I'm not about to throw away my now-venerable Menuhin/Davis Harold (Angel S-36123), the two new readings definitely have their own special and guite different merits.

Bernstein's second go-around with the Fantastique benefits in very large measure from superb recording. The reading is ultra-romantic, almost sulphurous in the intensity of feeling evoked throughout the opening movement. The ballroom scene is just a shade heavyhanded for my taste, and the "Scène aux champs" assumes an atmosphere more threatening than usual. The two final movements are done in the most dramatic Bernstein manner, and I must confess that the Witches' Sabbath almost did have my hair standing on end.

Something close to a surround effect is achieved in four-channel playback, at least as I had my system balanced, so that the bells punctuating the *Dies irae* seemed to emerge from the back ceiling with the most eerie effect. And I have never heard the always astounding *col legno* "fire and brimstone" bit toward the very end sound quite so terrifying. The low percussion transients here will give any set of speakers a workout.

On both releases, the pressings I received for review had *execrable* playing surfaces, as bad as New York City streets with their multiplicity of potholes, bumps, and excavations. I think the record buyer should be getting a better product for his money. D.H.

### BLANK: Two Songs (see WILSON)

#### BLOCH: Suite Hebraïque (see MARTIN)

### RECORDING OF SPECIAL MERIT

BRAHMS: Serenade No. 1, in D Major, Op. 11. Concertgebouw Orchestra, Amsterdam, Bernard Haitink cond. PHILIPS 9500 322 \$8.98.

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

A delectable disc of delectable music! I'm sure that the young Brahms never heard anything like the Concertgebouw players at the little provincial court of Detmold. The principal wind players do themselves proud, Haitink has just the right feel for the bucolic and occasionally darkly romantic atmosphere of the score, and the acoustics of the Concertgebouw Hall, abetted by the Philips recording team, lend a splendid overall glow. Only Stokowski's memorable Decca recording from the early 1960's (regrettably unavailable at present) is in the same class as this one. We should be grateful to Haitink and Philips for D.H.their achievement.

BRAHMS: Songs. Zigeunerlieder, Op. 103; Der Tod, Das Ist die Kühle Nacht; Immer Leiser Wird Mein Schlummer; Feldeinsamkeit; Ständchen; Liebestreu; Mädchenlied; Sapphische Ode; Ruhe. Süssliebchen im Schatten; Die Mainacht; Von Ewiger Liebe. Christa Ludwig (mezzo-soprano); Leonard Bernstein (piano). COLUMBIA M 34535 \$7.98.

### Performance: Stimulating Recording: Very good

Recorded in Vienna some years ago (date and locale are unspecified), this is an unconventional and somewhat controversial recital. There is, to be sure, nothing extraordinary about the program: some of the best songs of Brahms are included, and they form an utterly beautiful sequence. Christa Ludwig has always been an exceptional interpreter of the mellow moods and flowing lyricism of the Brahms melodies. She was near her top form on this occasion: her rich, dusky tones pour out freely, with a lovely sustained legato and exemplary enunciation.

With Leonard Bernstein at the piano, one need not belabor the point that he is a "collaborator" instead of an "accompanist." His take-charge presence is immediately established in the Zigeunerlieder, a group of fiery gypsy songs, which he propels in a manner that overpowers both the songs and the singer. Unquestionably, there are places where his dynamic pianism makes for exciting results. But it can be too much of a good thing: in Die Mainacht, the piano intrudes on the singer's spinning the glorious phrase "Und die einsame Träne rinnt"; it makes for an overdriven and too theatrical climax in Von Ewiger Liebe; and it transforms the singer in Ständchen from an interested observer into an involved participant. With all these reservations, however, I find this an uncommonly stimulating release. G.J.

### RECORDING OF SPECIAL MERIT

BRUCKNER: Symphony No. 7, in E Major. WAGNER: Siegfried Idyll. Berlin Philharmonic Orchestra, Herbert von Karajan cond. DEUTSCHE GRAMMOPHON 2707 102 two discs \$17.96, © 3370 023 \$17.96.

Performance: Passionate Recording: Supercharged

This most lyrical of the Bruckner symphonies tends to become bland in spots in most performances, but not here. Though adhering to the orthodox tempos throughout, Karajan and his Berliners deliver the most impassioned reading of this music I have ever heard, and I wager that others who hear it either will be totally enthralled or will reject it out of hand as altogether too "hot" for the essential character of the score. I find this combination of performance and all-out engineering precisely to my taste, especially in the great slow movement. For the celebrated chorale theme, Karajan elicits sound from the Berlin strings that I have heard equaled only by Stokowski's Philadelphia Orchestra in the mid-1930's. And, by this attention to details of line and rhythm, Karajan brings exceptional character and vitality to the usually four-squarish scherzo. Only in the finale do I sense a slightly labored quality—the pacing might have been just a hair quicker. Be that as it may, in my opinion this is the best Bruckner Seventh yet.

As for the Siegfried Idyll, Wagner's intimate birthday/Christmas tribute to Cosima is gorgeously decked out in Karajan's refined reading and Deutsche Grammophon's sound. But in this particular package it seems anticlimactic. Karajan's magnificent Bruckner Te Deum performance would have been more appropriate since it shares thematic material with the symphony's slow movement—and why, by the way, has no one thought to couple the Idyll with a fine performance of the Wesendonck Songs? D.H.

BRUCKNER: Symphony No. 9, in D Major. Berlin Philharmonic, Herbert von Karajan cond. DEUTSCHE GRAMMOPHON 2530 828 \$8.98, © 3370 828 \$8.98.

Performance: Solid Recording: Superb

Herbert von Karajan's reading of the Ninth is very solid, mainline, powerful Bruckner, with

### Rodrigo's Concierto Again



COMPOSER RODRIGO, GUITARIST ROMERO An exceptional musical experience

JOAQUIN RODRIGO, Mario Castelnuovo-Tedesco, and Heitor Villa-Lobos have all set the guitar to singing as a solo instrument in dialogue with a full symphony orchestra, but only Rodrigo's *Concierto de Aranjuez* of 1939, with its incisive rhythms and insinuating melodies, has ever really caught fire with the public. Angel Romero was the guitarist at the piece's American première (at the Hollywood Bowl in 1964) and recorded it with the San Antonio Symphony for Mercury some years ago. There have been numerous other recordings by such outstanding soloists as Julian Bream and John Williams, but Romero's new quadraphonic version, with the London Symphony conducted by André Previn, is the best of all. Both soloist and orchestra exploit the folk themes and the colorful, intricate scoring for all they are worth; it is as if the guitarist wished to pay tribute with a definitive performance to the work that first brought him international fame.

AFTER hearing the Concierto de Aranjuez, Andrés Segovia suggested to the composer the idea for the Fantasia para un Gentilhombre, which is based on material from the guitar anthology of Gaspar Sanz. The score is dedicated to Segovia, who first performed it (in San Francisco in 1954) and later recorded it, but here again Romero's vigorous interpretation, the spectacular accompaniment under Previn, and the stunning sonics provided by Angel-especially in four-channel playbackadd up to an exceptional musical experience. With its street dances, fanfares, persuasive rhythms, and final spirited canario (a dance from the West Indies), the Fantasia is a fitting, though lesser, companion piece for the -Paul Kresh Concierto.

**RODRIGO:** Concierto de Aranjuez; Fantasía para un Gentilhombre. Angel Romero (guitar); London Symphony Orchestra. André Previn cond. ANGEL 🗆 S-37440 \$7.98.



CIRCLE NO. 6 ON READER SERVICE CARD

XDR Cassette

dimensions of vision and passion that put it in the top ranks of recorded performances. Once or twice, Karajan messes with the orchestration of what is billed as the "original edition"—a matter that will, no doubt, cause outcries among the faithful. More serious, perhaps, is the surprising roughness here of the Berlin Philharmonic's playing. But these shortcomings did not really interfere with my appreciation of the very big-scale strengths of this performance. The recording meets Deutsche Grammophon's usual high standard, and over an hour of music has been expertly packed onto a single disc. *E.S.* 

FRESCOBALDI: Toccatas and Capriccios. Toccata Prima (Libro Secondo); Partite Sopra l'Aria della Romanesca; Toccata Nona (Libro Primo); Capriccio Cromatico con Ligature al Contrario; Canzona Seconda (Libro Secondo); Toccata Prima (Libro Primo); Balletto Terzo; Toccata Duodecima (Libro Primo); Capriccio Sopra l'Aria "Or Chè Noi Rimena," in Partite; Ancidetemi Pur d'Archadelt Passagiato; Capriccio di Durezze; Toccata Nona (Libro Secondo). Lionel Party (harpsichord). DESMAR DSM-1013 \$7.98.

Performance: Fairly good Recording: Excellent

Recorded with the cooperation of the Department of Musical Instruments of New York City's Metropolitan Museum of Art, this disc features two ancient Italian instruments: a harpsichord by Zenti (1666) and a spinettino (1540). The Zenti, a fine example of Italian harpsichord building, possesses a crisp, bright, and clear sound that becomes more attractive the more one hears it. The spinettino is difficult to judge because its frail condition will not permit it to be tuned at pitch. It is tuned so far below pitch here that its sound is muffled and lacks any sustaining power. Frescobaldi is a natural for these machines, and the Zenti responds enthusiastically to all of the music played on it. The spinettino, on the other hand, is only happy with the Balletto Terzo and makes a farce of the toccatas, especially the Toccata Duodecima, which is written in a sustained organ idiom.

Stylistically Frescobaldi's music poses some of the most difficult problems in the entire keyboard repertoire. The rhapsodic sections of the toccatas and cadential passages of the canzonas must be played freely, with broad arpeggiations, free rhythms, and added ornamentation and divisions; the contrapuntal sections must be played strictly and clearly; and the dances must bounce. Lionel Party has evolved a free style that is convincing in the right places, but its blanket application to every piece and section strips the music of the contrast that is its very essence. For example, in the Toccata Nona (Libro Primo) the ricercar-like central section does not stand out enough from the outer improvisational sections, and in the canzonas the effusive cadential flourishes are not sufficiently free to function as points of articulation between the strictly imitative sections. The sparkling rhythms of the dances leave the feet unmoving. Nonetheless, there is enough fine playing here to make the record worthwhile. And the real value of the disc lies in the splendid sound of the Zenti, so accurately caught by engineer David Hancock, the beautifully reproduced photograph of the instruments on the album cover, and the visionary music of Frescobaldi. S.L.

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#### RECORDING OF SPECIAL MERIT

HANDEL: Concertos No. 1, in B-flat Major, No. 2, in B-flat Major, and No. 3, in G Minor, for Oboe and Strings; Concerto Grosso in G Major, Op. 3, No. 3; Sonata à 5 in B-flat Major for Violin and Strings. Heinz Holliger (oboe); Kenneth Sillito (violin); English Chamber Orchestra, Raymond Leppard cond. PHILIPS 6500 240 \$6.98.

Performance: Fabulous Recording: Alive

Here is a joyous festival of the exuberant, youthful Handel joyously and exuberantly played. The outstanding feature of the disc is the exquisite work of Heinz Holliger. Disregarding the current taste for a highly articulated line in Baroque music, Holliger offers a seamless legato of long sinuous lines exquisitely molded by subtle dynamic nuance. To this he adds tasteful and imaginative divisions and ornamentation supported by a sure feeling for where and when not to ornament. The English Chamber Orchestra under the direction of Raymond Leppard furnishes lively and perfectly balanced accompaniments, keeping the tempos bouncing without falling into dogtrot or skittishness. Although these works appear rather barren in score, when performed by these forces they take on a sparkle that will disperse the thickest gloom. S.L.

HANDEL: Judas Maccabaeus. Ryland Davies (tenor), Judas Maccabaeus; Felicity Palmer (soprano), Israelitish Woman; Janet Baker (contralto), Israelitish Man; John Shirley-Quirk (bass), Simon; Wandsworth School Choir; English Chamber Orchestra, Charles Mackerras cond. DEUTSCHE GRAMMOPHON ARCHIV 2710 021 three discs \$26.94, © 3376 011 \$26.94.

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

Ah, the English singer and the Handel oratorio! This recording has all the most up-todate trimmings: scholarly edition, Baroque performance practices, top soloists of a new generation, chamber orchestra, knowledgeable direction, gorgeous sound, and, best of all, the imprimatur of a Deutsche Grammophon Archiv production. Has English oratorio performance changed that much since the grand old days (ca. 1880) of the great choral festivals? Not really. In fact, what we have here is vintage Olde English Oratorio, the kind that we read about in the music criticism of G. B. Shaw and other observers of the late-Victorian scene. What could be more typical of this species than stately Dame Janet Baker producing the most glorious contralto tones this side of Anglican heaven? Or the stately language she sings in, High Mashed Potato? Most of the work is sung in this curious tongue, though unfortunately it is not one of the languages in the program booklet, which gives only the French, German, and English translations of the text.

Judas Maccabaeus is one of the few Handel oratorios to maintain its popularity over the years. It was Handel's idea to retrieve his flagging fortunes by symbolically celebrating the martial achievements, actual or anticipated, of the English against a rather serious rebellion and invasion from the North. Works of this sort, with their sentiments of piety, self-righteousness, militarism, and jingoism, (Continued on page 154)

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Sandor Végh

SINCE not enjoying things is not a thing I enjoy, recurring encounters with the Guarneri Quartet always prompt, first of all, the hope that my past negative impressions will turn out to have been unjustified. After listening to their new set of the six string quartets of Béla Bartók, however, I fear that once again I am not converted. But this particular encounter has also brought with it an opportunity to explore two other Bartók quartet cycles issued in recent months and to reassess the current discography of the six works. And that, thanks to one superb set of performances, has been the purest delight.

Since we are about the business of serious criticism, and not vulgar cliff-hanging along who-done-it-best lines, I will say at once that the superlative attaches to the Végh Quartet's recording. Listening to these masterly interpretations has reawakened my sense of the masterliness of the music itself. I did not have the Végh's much older (long deleted) mono set at hand for comparison in detail, but my recollections of Végh performances years ago suggest that in its new version, first released in Europe about four years back, the Hungarian ensemble has vastly increased its grasp of Bartók's many-faceted genius.

It is, indeed, the sheer musical and emotional comprehensiveness of these Végh readings that give them the edge over both the Juilliard Quartet's Columbia set and the Fine Arts Quartet's now unobtainable (and, in any case, somewhat wanly recorded) Concert Disc versions. The Juilliard set has been the standard in this repertoire for years, and there are probably those dedicated Bartókians, especially of the more determinedly modernist variety, who will continue to prefer it. There is no more strikingly single-minded statement on disc of the music's leaner. tougher aspects. On the other hand, the early-1960's perceptions of the Fine Arts players have a lyrical, likable musicality that can still, poor recording or not, command adherents among those lucky enough to own the discs.

What the Végh Quartet has now achieved is a set justly balanced among all the music's

qualities. Far\_richer than the Juilliard set in color and atmosphere, and thus a closer realization of Bartók's never-forgotten folk-art roots, it also has the brilliant panache and implacable drive that the Fine Arts grouprecording as always, for some incomprehensible reason, for a minor label and under less than ideal conditions-could not quite capture on disc. As a result, I find the claims of at least the last five quartets to constitute the peak of the composer's musical achievement more fully justified here than in any previous recording.

HE Végh's superiority, palpable enough next to ensembles of the Juilliard and Fine Arts rank, becomes almost embarrassingly clear-cut in comparison with the work of the Guarneri and New Hungarian quartets. The New Hungarians, though musicianly enough in an unassuming way, are, I am afraid, simply not in the contest technically. Purely as string players, they sound as if they are having the devil of a job just getting through the

. . . justly balanced among all the music's qualities . . .

notes (which are admittedly taxing enough to stretch the technical abilities of even the finest performers).

As for the much-vaunted Guarneri Quartet, what can I say but that I simply don't understand its reputation? Apart from the single virtue of intermittent polyphonic clarity, these performances seem to me to combine all the characteristic shortcomings of a chronically overrated group. The tone is without depth or variety, the dynamics without range.

The rhythm, particularly in passages such as the trio of the Fifth Quartet's Bulgarian-style scherzo, is incredibly sloppy, and the articulation is often so spineless that fast movements, such as the same work's finale, emerge as a vague, slithery mass rather than the pungently pointed web of lines and motifs projected by the Végh players. Contrasts of tempo are either glossed over-compare the finale of the Guarneri's First Ouartet, where the alternating "slightly faster" sections often simply aren't, with the Végh's precise execution of the markings-or, no less frequently, exaggerated out of due proportion. And whenever there is some musical sap in these etiolated interpretations, it always comes from the inner two voices, which leave their first-violin and cello partners far behind in bite, impulse, and intensity.

**HE** Végh players, I am happy to report, have the luck they deserve in terms of recording quality. The virtues of their music making are captured in dazzlingly vivid sonority, and the imported Telefunken pressings make the RCA and Vox discs sound like sandpaper (not to mention a number of obtrusive studio noises in the RCA). For once, then, the recommendation can be decisive-with one sole qualification: Halsey Stevens' notes for the Guarneri set are immeasurably superior to the labored exegesis (translated into what the booklet optimistically calls English) included with the Végh recordings. But reading about the music is no substitute for experiencing it undiluted, and that is the pleasure the Végh Quartet provides. —Bernard Jacobson

BARTÓK: String Quartets Nos. 1-6. Guarneri Quartet. RCA ARL3-2412 three discs \$23.94.

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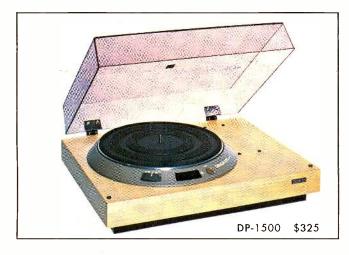
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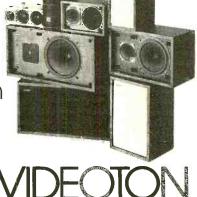
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require a Handel to make them tolerable. Judas does not maintain as consistently high a level of inspiration as Messiah—or, for that matter, Theodora or Serse or Giulio Cesare. Still, it is not a negligible work; its formula writing is tempered by Handel's genius, its slightly forced smiling optimism by expressions of feeling—scenes of mourning and lyrical piety in the best Baroque manner.

The Victorian choir-festival approach robbed these works of a certain vitality, for England in the mid-eighteenth century was a very different place from what it became in the reign of good Queen Victoria. The expression of strong feeling was not foreign to Handel, his musicians, or his public; indeed, the Baroque aria of affect—of which Handel was one of the greatest exponents—was based precisely on the idea of clearly and strongly translating emotions into musical terms. The Victorians kept Handel's music alive but treated him as an Olde English Composer who had had the good sense to anticipate Victorian middle-class manners. Alas, the well-mannered performance survives even unto our own day, now aided and abetted by scholarship, harpsichords, and other paraphernalia of good taste.

As for this recording, what a fantastic collection of soloists it has! What marvellous singing and playing! What smooth sound! What highfalutin style! What class! But good deportment is not everything in life or music. What we need here is a little rough, strong,



musical behavior, a little force and spirit that might, just once, move us and thrill us and rescue poor George Frideric from the icy clutches of the English class system. This sort of thing may be beautiful, but it is too well behaved by half. E.S.

HAYDN: Symphony No. 43, in E-flat Major; Symphony No. 59, in A Major (see Best of the Month, page 111)

### HINDEMITH: Der Schwanendreher (see MARTIN)

JANÁČEK: Amarus. Eva Gebauerová (soprano); Jiří Zahradníček (tenor); René Tuček (baritone). SUK: Under the Apple Tree, Op. 20. Bohuslava Jelínková (contralto). Czech Philharmonic Chorus; Ostrava Janáček Philharmonic Orchestra, Otakar Trhlík cond. SU-PRAPHON 1 12 1678 \$7.98.

### Performance: Janáček more convincing Recording: Decent

Both of these beautiful works date from the turn of the century and both are concert cantatas with spiritual subjects on texts from late-Romantic Czech poets. Janáček's Amarus is a bitter-sweet dramatic tale (by Jaroslav Vrchlický) about the hard life of a wretch of a monk, named Amarus, who is undone by earthly love. Suk, who was Dvořák's pupil and son-in-law, made his cantata out of incidental music for a mystical drama by Julius Zeyer.

Amarus is a relatively early work-at any rate earlier than the famous operas. But it already has the typical Janáček trademarks: small, repeated motifs and phrases, a direct, plain speech style of great intensity. Suk, on the other hand, uses a more conventional apparatus of choral and orchestral peroration. Janáček's work moves from generalized spirituality to a very particular tale of human emotion; Suk moves the other way, from the earthly particular to the mystical generality. Oddly, perhaps, it is the Janaček that makes the deeper and more spiritual effect today. I think that the performers believed more deeply in the Janáček as well, for Under the Apple Tree sounds a bit soggy while Amarus is played and sung with real character. E.S.

RECORDING OF SPECIAL MERIT JANÁČEK: In the Mist; 1.X.1905. SZYMA-NOWSKI: Masques, Op. 34. Jan Latham Koenig (piano). PRELUDE PMS 1503 \$7.98.

Performance: Very good Recording: Limpid

The "Premiere Recording" banner across the jacket of this disc does not refer to the repertoire, of course, but to a series introducing "young artists of exceptional talent with an outstanding potential"-no hyperbole in the case of twenty-four-year old Jan Latham Koenig if the performances recorded here may be taken as representative. They show him to be thoroughly "inside" the music of both composers temperamentally, and well equipped technically to bring it to life in the most compelling way. With Firkusny's authoritative Janáček inexplicably withdrawn by Deutsche Grammophon, Koenig's convincing presentations of In the Mist and the remarkable two-movement sonata bearing as its title the date October 1, 1905 (subtitled From the (Continued on page 156)

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Street) are especially welcome, and his evocative realization of Szymanowski's Masques achieves an atmospheric luminosity unmatched in either of the other recordings of that work known to me. Unusually fine, limpid piano sound makes the disc all the more attractive.

The packaging, unfortunately, is botched so as to leave the listener not already familiar with Szymanowski's piano music thoroughly confused about what he is listening to. In addition to obvious typos and misspellings, the contents list on the cover and the disc label both give Masques as a translation of Metopy. an entirely different work better known by its French title Métopes (Op. 29). Prelude has compounded the confusion by giving the Polish titles of the three movements of Métopes instead of those of Masques-and still further compounded it by translating the title of Métopes' first movement ("The Isle of the Sirens") as "Scheherazade," which is the proper heading for the first segment of Masques. It is only in Koenig's own annotation that all the correct titles are mentionedwithout reference to those printed elsewhere. Nevertheless, I have only high praise for what is in the grooves of this disc. RE

RECORDING OF SPECIAL MERIT

LISZT: Années de Pèlerinage. Lazar Berman (piano). DEUTSCHE GRAMMOPHON 2709 076 three discs \$26.94.

Performance: Natural Recording: Self-effacing

Liszt's Années de Pèlerinage ("vears of pilgrimage" or, less literally, "years of travel") consists largely of pieces drawn from a kind of musical journal the composer kept between 1835 and 1839 when he traveled and lived in Switzerland and Italy with the Comtesse Marie d'Agoult. The pieces written during that time were revised and collated into two sets, which include Au Lac de Wallenstadt, Au Bord d'une Source, Vallée d'Obermann, the Petrarch Sonnets, and the Dante Sonata. Short, impressionistic pieces and arrangements of songs (by Liszt himself, Rossini, and others) stand alongside big, dramatic works of considerable scope. The final volume of the Années, however, contains music of a much later date, and, except for the brilliant Jeux d'Eaux à la Ville D'Este, all the pieces are slow and contemplative in Liszt's austere, forward-looking late style.

Curiously enough, it is in the late works that Lazar Berman's new recording makes the deepest impression. I say "curiously" because Berman-who has possibly the greatest total command of the piano of anyone living-would seem to be the ideal performer for the earlier, highly romantic and virtuosic works. But I find that although he is in many respects a good Lisztian, the Russian pianist lacks a certain element-fire, demonism, blended otherworldliness and showmanshipthat is essential in the earlier Liszt. In the late works, the quality becomes truly visionary. Berman attacks the late music with epic involvement, while letting the Byronesque musings of the Vallée d'Obermann remain on the level of lyric poetry-lovely, to be sure, but with slighter proportions.

Let there be no misunderstanding: this is all fabulous playing, not only on a technical but also on a musical level. However, Berman's much-vaunted old-fashioned romantic pianism is really more instinctive and modern than most of his boosters would be willing to admit. The truth is that the old Liszt-to-Busoni tradition involved a very deliberate synthesis of grand passions—including the Faustian intellectual/demonic. Everything is tormented, everything is in question; there is a restless search for peace amid both inner and outer upheaval. Berman's is quite another kind of personality—he is a natural, instinctive lyric poet with a tremendous, easy grasp of any complexity. He is not a lesser kind of musician, only a little different kind from what we have been led to expect. E.S.

### RECORDING OF SPECIAL MERIT

MARTIN: Sonata da Chiesa for Viola d'Amore and String Orchestra. BLOCH: Suite Hebraïque for Viola and Orchestra. HIN-DEMITH: Der Schwanendreher. Marcus Thompson (viola, viola d'amore); M.I.T. Symphony Orchestra, David Epstein cond. TURNABOUT QTV 34687 \$3.98.

Performance: Very good Recording: Excellent

To the best of my knowledge, this is the first recording on an American label for both Frank Martin's Sonata da Chiesa and Bloch's Suite Hebraïque in its orchestral version. The Martin piece, originally with organ accompaniment in its 1938 version, is an altogether lovely essay in lyrical pantonality, with the sympathetic-string resonances of the viola d'amore providing a fascinating sonic halo around the solo line. It whets the appetite for some of the other twentieth-century scores employing the viola d'amore as soloist, such as Le Mort de Tintagiles by American composer Charles Martin Loeffler (1861-1935). The Bloch suite is a series of colorful chips from that master's workshop. It has long been known in its viola-piano format, especially by way of William Primrose's Capitol disc (now out of print) on which it was paired with the far more important Viola Suite (1919). The Hindemith work, based on old German folk tunes, still strikes me as a rather gnarly score, yet it can be oddly fascinating in a good performance. What with this new recording and earlier ones with Karl Doktor (Odyssey) and Raphael Hillyer (Nonesuch), Der Schwanendreher has fared well on stereo discs.

Not the least of the many merits of this Turnabout offering is the highly effective ambiance in four-channel playback. The performances throughout are warm and rhythmically vital. D.H.

MAXWELL DAVIES: Dark Angels. Jan De-Gaetani (mezzo-soprano); Oscar Ghiglia (guitar). WERNICK: Songs of Remembrance. Jan DeGaetani (mezzo-soprano); Philip West (shawm, English horn, oboe). NONESUCH H-71342 \$3.96.

Performance: Gorgeous Recording: Ditto

More death-obsessed modern music! This plague of morbidity that seems to have overtaken the avant-garde is truly unhealthy; new art can thrive only on a vital, life-giving spirit!

Peter Maxwell Davies' Dark Angels (unrelated to the George Crumb work of the same name except that the state of mind seems similar) is a setting for voice and guitar of two poems by George Mackay Brown. The (Continued on Page 158)

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### **Stereo Review**

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poems concern the drowning of two brothers in the remote Orkney Islands—where Maxwell Davies himself now lives—and the subsequent desertion of their island home. The music sounds exquisitely plaintive, but since Jan DeGaetani sings almost no consonants at all, the words are incomprehensible without reference to the printed texts.

Richard Wernick's Songs of Remembrance are dedicated to the memory of a girl who died at the age of nine. The texts—in the original languages—are from Pythagoras, Horace, Virgil, and Herrick. This might suggest a genteel, literary approach, but Wernick's settings are direct and keening, and again the performance is artful and gorgeous. E.S.

Performance: Good Recording: Good

The Mendelssohn oratorios seem to have fallen into neglect. One may occasionally come upon a performance of *Elijah*, but the earlier *Paulus* has become a stranger to concert life. For a long while *Paulus* was highly favored in England, but even at the height of its popularity there G. B. Shaw (predictably) dismissed it as "Sunday school horrors." We now have the first modern recording of *Paulus*, produced in Düsseldorf, where Mendelssohn conducted the première on May 22, 1836.

The influence of the Bach Passions is very strong in *Paulus*, but the score lacks the sweep and majesty of its models. Mendelssohn's characteristic clarity and symmetry is in evidence, as is his skill in writing brief though pleasing arias and elaborate choruses, but there is no sense of emerging *drama* in his treatment of Paul's baptism and sufferings.

Among the singers, Werner Hollweg is the most impressive. Helen Donath and Hanna Schwarz perform well, while Fischer-Dieskau is in his current characteristic form. All the soloists excel in articulating their parts with clarity and conviction, but their efforts are not matched by the chorus. Frühbeck de Burgos evidently has a sympathy for this music. More incisiveness in the choral portions would have helped, but I doubt that any conductor could make up for the music's essential lack of vitality. *G.J.* 

MOUSSORGSKY: Boris Godounov. Martti Talvela (bass), Boris Godounov; Nicolai Gedda (tenor), Grigori, Dimitri; Leonard Mróz (bass), Pimen; Božena Kinasz (soprano), Marina; Andrzej Hiolski (baritone), Rangoni, Shchelkalov; Aage Haugland (bass), Varlaam; Kazimierz Pustelak (tenor). Missail; Bogdan Paprocki (tenor), Shuisky; Halina Łukomska (soprano), Xenia; Paulos Raptis (tenor), the Simpleton; others. Polish Radio Chorus; Polish Radio National Symphony Orchestra, Jerzy Semkow cond. ANGEL □ SDLX-3844 four discs \$31.98, © 4x4x-3844 \$31.98.

Performance: Well sung Recording: Good, but not exceptional

Russian musical circles have shown surprisingly little interest in Moussorgsky's Urtext of (Continued on page 160)

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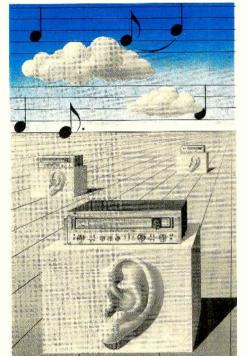


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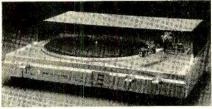
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CIRCLE NO. 8 ON READER SERVICE CARD

Boris Godounov, which was withdrawn from the repertoire after the composer's death in 1881. The Bolshoi Theater has been showing the Rimsky-Korsakov edition since it became the official Boris Godounov in 1891 (it was last revised in 1906), while the Kirov in Leningrad has opted for the Shostakovich orchestration of the Moussorgsky score since 1959. It was growing interest in the West (primarily in England and Germany) that eventually led to the Metropolitan's staging of the Moussorgsky original in 1974 under Thomas Schippers and, finally, to this first-ever complete recording of it, with Martti Talvela, the triumphant Boris of the Munich and New York productions, in the title role.

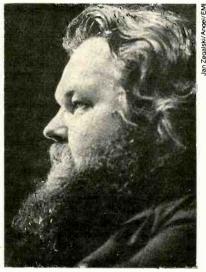
Moussorgsky himself created two versions of Boris Godounov. The Polish Scene was incorporated into the second to add color and love interest, and the St. Basil Scene was removed, presumably to curtail the opera's excessive length. (The annotations accompanying the new album clarify the changes in great detail.) This recording offers the most complete Boris Godounov imaginable, and the conviction that it is a very long opera indeed is strengthened by conductor Semkow's leisurely, at times languid pacing. It is one of the true masterpieces of operatic literature, but, at the risk of sounding not only terribly unfashionable but downright heretical, I find that the original's sparse and austere orchestral textures militate against its overall effectiveness. In jettisoning Rimsky-Korsakov's changes (which to some extent falsified the composer's harmonic intentions) we have gained in authenticity, but at the cost of a great deal of color and orchestral splendor. Nowhere is this more evident than in the closing pages of the Polish Scene. Moussorgsky's handling of this torrid moment is embarrassingly inept from the theatrical point of view (and it falls totally flat in the theater), while Rimsky's music exploits the scene's grand theatricality to the fullest.

There is some good singing in the new set, however. Martti Talvela is a very human Boris, sensitively pointing up the guilt-ridden and suffering aspects of the character. His scene with the children is handled with great tenderness, and he knows how to convey majesty without resorting to excessive fierceness. Vocally, he is in fine estate. So is Nicolai Gedda, whose Dimitri twenty-five years ago was his first recorded role and who now confirms his supremacy among all recorded Pretenders. The Danish bass, Aage Haugland, is a flavorful Varlaam.

The rest of the cast are Polish artists, all good. Though some of Marina's music lies a bit low for Božena Kinasz, she is generally first-rate, and so are Leonard Mróz, a smooth, lyrical Pimen, and Halina Łukomska, a freshvoiced and touching Xenia. Bogdan Paprocki was a first-rate Canio and Don José a few years ago; the voice has faded somewhat, but he still makes an impact as Shuisky. Andrzej Hiolski sounds like a baritone with a good Italian schooling: he sings both his parts very well, but without the Slavic cutting edge for Shchelkalov and without the insinuating evil for Rangoni. The Simpleton and all the other supporting members of the cast are fine, except for the strident Boyar Khruschov in the final scene. The chorus-stronger in the men than in the women-is not quite on the Bolshoi level but perfectly acceptable. So is the orchestra, but more vital, more incisive leadership is needed.

The long record sides are no doubt responsible for the low-level sound. With the volume turned up I find the reproduction clear and free of distortion, but in no way superior to Angel's 1963 recording of the Rimsky-Korsakov edition with Boris Christoff as the Tsar. In quadraphonic playback there is more ambience and a sense of palatial space in the big choral passages, but the illusion is marred by a kind of sonic haze and a certain tubbiness throughout. For those interested in Moussorgsky's original, the new recording is the answer, but those who want a vital, exciting Boris Godounov will probably prefer the older Angel set. GI

RECORDING OF SPECIAL MERIT MOZART: String Ouartet No. 16, in E-flat Major (K. 428); String Quartet No. 17, in B-



MARTTI TALVELA A very human Boris

flat Major (K. 458, "Hunt"). Melos Quartet, Stuttgart. DEUTSCHE GRAMMOPHON 2530 800 \$8.98, © 3300 800 \$8.98.

Performance: Elegant Recording: Excellent

The Melos Quartet's first phonographic encounter with Mozart is so outstandingly successful that it immediately arouses the hope that the Stuttgart ensemble might proceed to the comprehensive coverage it has already given Schubert and Cherubini. The opening movement of K. 428 is as smooth and sinuous as that of K. 458 is robust and crisp-both within a framework of elegance that includes the sensitivity to find a happy mean between understatement and overexpressiveness. The half-brooding intimacy of K. 428's slow movement and the gentler melancholy of K. 458 are realized to breathtaking perfection, with a collective sweetness of tone that is an enhancement rather than a distraction. A catalog of interpretive felicities could be compiled, but it seems sufficient to say that, technically assured and abetted by Deutsche Grammophon's exceptionally well-balanced and lifelike recording, the Melos Quartet simply yields deeper pleasures in these marvelous works than any of its predecessors on LP. Chamber music aficionados should cherish (Continued on page 162)

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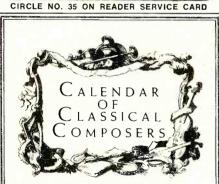
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usic Editor James Goodfriend's Calendar of Classical Composers is a listing of the most important composers from the year 1400 to the present, grouped according to the stylistic periods-Renaissance, Baroque, Classic, Romantic, etc.-in which they worked. This 12 x 24-inch aid, guide, and complement to your music listening is printed in color on heavy, nonreflecting stock suitable, as they say, for framing. A key to the calendar, consisting of capsule accounts of the principal stylistic characteristics of each musical period, is included. The whole will be sent rolled in a mailing tube to prevent creases; we pay postage. All you do is send 25¢ to:

Calendar of Classical Composers Stereo Review, 1 Park Avenue, New York, N.Y. 10016 this release, regardless of duplications in their collections, and listeners who have yet to explore the joys of this category of music could not ask for a more enticing introduction to it. (Now, might the Melos Quartet and DG oblige us with a disc of the so-called "Milanese" Quartets, K. Anh. 210-213? Authenticated or not, they are too attractive to be missing from the catalogs for so long.) R.F.

### RECORDING OF SPECIAL MERIT

**RACHMANINOFF:** *Piano Concerto No. 3, in D Minor, Op. 30.* Earl Wild (piano); Royal Philharmonic Orchestra, Jascha Horenstein cond. QUINTESSENCE PMC 7030 \$3.98.

Performance: Ear-opening Recording: Excellent

RACHMANINOFF: Piano Concerto No. 3, in D Minor, Op. 30. Lazar Berman (piano); London Symphony Orchestra, Claudio Abbado cond. COLUMBIA XM 34540 \$7.98.

Performance: **Solid** Recording: **Good** 

The Earl Wild/Jascha Horenstein version of Rachmaninoff's Third Concerto was recorded in Walthamstow Town Hall, London, in 1965. It is one of the most effective Rachmaninoff performances I have ever heard, and it considerably changed my view of this music. It is not just the fire, clarity, and excitement of the performance, but a whole new way of thinking about the music. The work's phrasing, thematic signposts, and changes of tempothe inner character of each idea and sectionseem very classical (everything is clearly etched) here, yet it is at the same time full of drama (contrast, exchange, conflict and resolution). As a result, the concerto not only seems extraordinarily vivid in this recording, it reveals a surprising amount of inner strength and backbone.

Lazar Berman and Claudio Abbado take a much more traditional approach. Theirs is a strong, solid, even stolid reading that has a kind of earth-bound romanticism but, on the whole, lacks the soaring excitement and challenge of the Wild/Horenstein interpretation. I should mention, however, that Berman does play the extremely difficult and rarely performed alternative cadenza, and he and Abbado opt for the complete score as published. Wild plays the "easier," more familiar cadenza, and he and Horenstein make the usual cuts (which the composer sanctioned); this is perhaps a mistake in the first two movements, but it is a blessing in the overlong, overbalanced finale. E.S.

SCHOENBERG: The Five String Quartets (see Best of the Month, page 109)

### RECORDING OF SPECIAL MERIT

SCHUMANN: Études Symphoniques, Op. 13; Papillons, Op. 2. Murray Perahia (piano). Co-LUMBIA @ 34539 \$7.98.

Performance: Idiomatic Recording: Very good

Murray Perahia's first solo recording was a disc of Schumann's *Davidsbündlertänze* and *Fantasiestücke* (Columbia M 32299) that disclosed so striking an affinity for the music of this composer that one can only wonder why Columbia has waited so long to give us more. The performances on this new disc are on the same level of inspiration, filled with spontaneity, poetry, and passion—in other words, so thoroughly inside the Schumann idiom that there is hardly a suggestion of an interpretive middleman. Perahia's presentation of the Symphonic Studies includes the five posthumous pieces as well as the twelve published as Op. 13; they are inserted at the same points as in Claudio Arrau's Philips recording (6500 130), but with the positions of the first and third of the added numbers reversed. Arran's more expansive performances of both the Studies and Papillons (Philips 6500 395) exude their own Schumannesque magic, but Perahia's leaner and somewhat impetuous style suits the music no less well than Arrau's quite different one, and the very differences between the approaches of these two magnificent Schumann players constitute a virtually irresistible argument for having both versions. Columbia's sound is very good, if a little harder than Philips', but the surfaces on my review copy were rather gritty. R.F.

SMIT: Songs of Wonder; At the Corner of the Sky (see WILSON)

**R. STRAUSS:** *Ein Heldenleben, Op. 40.* Vienna Philharmonic Orchestra, Karl Böhm cond. DEUTSCHE GRAMMOPHON 2530 781 \$8.98, © 3300 781 \$8.98.

Performance: Sobersided Recording: A mite bass-shy

Strauss' hero as viewed through the mind's ear of eighty-three-year-old Karl Böhm is a decidedly more sober and introspective fellow than the passionate and exuberant one depicted by Mengelberg, Ormandy, and Reiner (Karajan and Haitink take something of a middle ground). However, as might be expected of a veteran Straussian with the highest credentials, Böhm and the Deutsche Grammophon recording team do bring out some marvelous textural details all through the score—the yammering vocalization of the critics is simply superb here, as are the recollective pages from the end of the battle scene to the conclusion.

I'm not altogether happy with some aspects of the DG recording; I sense a bit of knob twisting for spotlighting purposes just before the battle scene, and, as with certain other DG discs on the American market, I find a lack of really solid bass (or is it pre-emphasized mid-range?). D.H.

SUK: Under the Apple Tree, Op. 20 (see JA-NÁČEK)

SZYMANOWSKI: Masques, Op. 34 (see JA-NÁČEK)

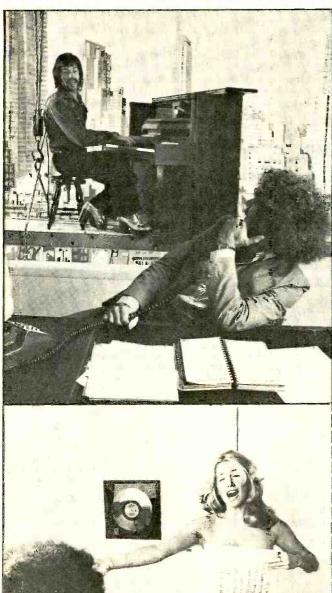
VERDI: Simon Boccanegra (see Best of the Month, page 110)

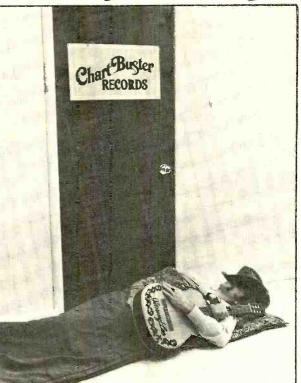
VIVALDI: The Four Seasons, Op. 8, Nos. 1-4. New Koto Ensemble of Tokyo, Seiichi Mitsuishi cond. ANGEL □ S-37450 \$7.98, © 4XS-37450 \$7.98.

Performance: Convincing Recording: Superb

Vivaldi's Four Seasons played on kotos? It sounds like a doomed experiment on the face of it. The eighteenth-century Venetian scored his calendar of concertos for violin soloist and chamber orchestra, for one thing, and the (Continued on page 164)

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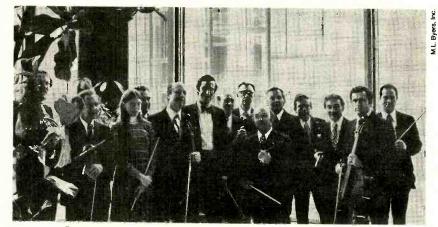
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### CIRCLE NO. 33 ON READER SERVICE CARD

koto, a distant relation of the zither, is a thirteen-string affair that gets plucked rather than bowed. Yet the six members of the New Koto Ensemble of Tokyo have wrought a kind of miracle of transubstantiation here, and even those who might feel wearied from overexposure to this most popular quartet of concertos will find their treatment a revelation. The koto is the only Japanese instrument capable of singing, as it were, in a Western accent, but to play so difficult a work and remain faithful to it note for note means manipulating the strings and shifting the bridge of each instrument in the midst of performance-a demanding feat to say the least. Yet the entire performance, under conductor Seiichi Mitsuishi, comes off as effortless, and if some of the pastwelve-year old girl, the other for speaking voice, instruments, and chorus on American-Indian poetry. Both are rather cool, introverted expressions of great cosmic issues. Allan Blank's two songs are a showcase for the talents of Jan DeGaetani and Arthur Weisberg but are otherwise unexciting. E.S.

### COLLECTIONS

JOSÉ CARRERAS: Opera Arias. Verdi: Il Corsaro: Tutto parea sorridere; Eccomi prigionero. I Due Foscari: Non maledirmi. Puccini: Tosca: E lucevan le stelle. Rossini: Elisabetta, Regina d'Inghilterra: Della cieca fortuna . . . sposa amata. Donizetti: Lucia di



PHILHARMONIA VIRTUOSI: winning new friends for Baroque music

sages still seem to speak in slightly Japanese musical intonations, on the whole it is a convincing, even thrilling reading. What helps to make it so is the remarkable spaciousness of the sound, especially in SQ quadraphonic playback. The album comes with English texts of the four sonnets written as a program for the music and an excellent set of notes by Rory Guy. P.K.

### WAGNER: Siegfried Idyll (see BRUCKNER)

### WERNICK: Songs of Remembrance (see MAXWELL DAVIES)

WILSON: Sometimes. William A. Brown (tenor); tape. BLANK: Two Songs. Jan DeGaetani (mezzo-soprano); Arthur Weisberg (bassoon). SMIT: Songs of Wonder. Martha Hanneman (soprano); Leo Smit (piano). At the Corner of the Sky. Henrik Svitzer (flute); Nora Post (obce); Leo Smit (speaker); Men and Boys Choir of St. Paul's Cathedral, Buffalo, N.Y., Frederick Burgomaster cond. CRI SD 370 \$6.95.

### Performance: Excellent Recording:Good

This recording, entitled "Other Voices," is a collection of disparate pieces of vocal music by three contemporary American composers. Olly Wilson, the youngest of the three and one of the relatively few black composers to gain prominence in modern "classical" music, has produced a fascinating riff on Sometimes I Feel Like a Motherless Child, set in an expressive far-out idiom for voice and tape. Leo Smit is represented by two mystical song sets, one for voice and piano on poems of a

Lammermoor: Final Scene. José Carreras (tenor); Samuel Ramey (bass, in Lucia); various orchestras, Lamberto Gardelli, Colin Davis, and Jesús López Cobos cond. PHILIPS 6598 533 \$8.98.

Performance: Carreras in fine form Recording: Generally good

These selections are all taken from complete opera sets (Verdi's *I Due Foscari* is scheduled for release this year). The musically more interesting side one includes the entire opening scene from *Il Corsaro*—with orchestral prelude, chorus, and a rousing *stretta* that sounds like an early model for "*Di quella pira*"—and the third-act aria "*Eccomi prigionero*," an extraordinarily beautiful inspiration. José Carreras displays exemplary tonal beauty and technical refinement in these, perhaps a shade less in the familiar *Tosca* excerpt.

The Rossini scene is not very interesting musically, and the Lucia finale is very broadly and squarely conducted by Jesús López Cobos, which takes some of the edge off the good vocal achievements. Moreover, the engineers have relegated Samuel Ramey's important contribution too far to the background. This seems like a hurried production. There are no texts, not even notes of any consequence, only a publicity blurb on the artist. Still, it will please Carreras fans who do not own the complete recordings. *G.J.* 

MIRELLA FRENI: Opera Arias. Puccini: Madama Butterfly: Un bel dì vedremo. Tosca: Vissi d'arte. Turandot: Signore, ascolta! Gianni Schicchi: O mio babbino caro. La Rondine: Chi il bel sogno di Doretta. Mascagni: L'Amico Fritz: Son pochi fiori. Verdi: La

Traviata: Ah, fors'e lui . . . Sempre libera. Otello: Ave Maria. Bellini: I Puritani: Qui la Vien diletto. Mozart: The Mar-POCE riage of Figaro: Dove sono. Cilea: Adriana Lecouvreur: Poveri fiori. Mirella Freni (soprano); various orchestras, Franco Ferraris, Leone Magiera, and Antonino Votto cond. ANGEL S-37446 \$7.98.

Performance: Fine singing Recording: Good

Let's dispose of the prosaic elements first. These are not newly recorded selections. Five of them come from a 1965 release (Angel 36268, deleted), two are conducted by Antonino Votto (deceased some years ago), and five by the soprano's husband, Leone Magiera (on dates unspecified). As for the program, if they ever establish a Grammy award for "the most hackneyed repertoire," this will be a shoo-in.

However . . . Mirella Freni is such a gratifyingly tasteful and musical artist that her singing is always welcome and certainly should be well represented in the catalog. Since recording these arias, she has enlarged her repertoire to encompass certain "heavroles, but essentially she is a lyric ier' soprano and the present sequence displays her exquisite tone, lovely legato, and subtle expressiveness to good advantage. It should surprise no one that she sings the music of Liù, Butterfly, Lauretta, Susanna, and Suzel beguilingly. Her "Vissi d'arte," though tonally lovely, lacks intensity, however, and the bravura conclusions of the La Traviata and I Puritani excerpts are sung too cautiously. The accompaniments are routine, the sound GLsmooth but unspectacular.

### RECORDING OF SPECIAL MERIT

**GREATEST HITS OF 1720. Pachelbel:** Canon in D Major. Corelli: Sonata No. 5: Gigue. Bach: Anna Magdalena Notebook: Minuet. Suite No. 3: Air for the G String. Harpsichord Concerto in F Minor: Largo. Concerto for Violin and Oboe: Adagio. Mouret: First Symphonic Suite: Rondo. Albinoni: Adagio. Handel: Suite No. 11 for Harpsichord: Sarabande. Campra: Tancrede: Triumphal March. Philharmonia Virtuosi of New York, Richard Kapp cond. COLUMBIA MX 34544 \$5.98. (8) MXA 34544 \$5.98, © MXT 34544 \$5.98.

Performance: Bequiling Recording: Excellent

This collection of melodic treasures from the eighteenth century is so consistently charming, so refreshingly played, and so brilliantly recorded that it might well win large numbers of new friends for the music of that period. Baroque music was not all meant to be played in the background at royal dinners and court ceremonies, and the spectacular pieces here command the listener's full attention. The "No. 1 Hit" is Pachelbel's Canon in D, much more famous now than it was then, and as a sort of musical centerpiece there's the rondo from Mouret's First Symphonic Suite-the theme for Masterpiece Theatre. They've never been played with more élan, and that goes for everything else on the disc as well. By way of liner notes, there's a musical diary of an imaginary "roving reporter" based in London in 1720, which must have been quite a PK year for music.

(Continued on page 168)

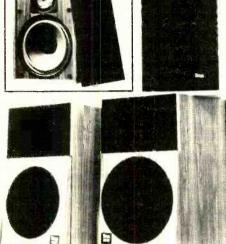
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PIECES FOR FLUTE-CLOCK. Haydn: Seven Pieces for Flute-clock. Mozart: Ein Orgelstücke für eine Uhr, in F Minor (K. 608); Andante für eine Walze in eine Kleine Orgel, in F Major (K. 616). Beethoven: Adagio and Allegro for Music Box. Danzi: Quintet in D Minor, Op. 68, No. 3. Danzi Quintet. ABC/ SEON AB-67016 \$6.98.

### Performance: Delicious

Recording: Fine

The Haydn, Mozart, and Beethoven pieces on this disc were composed for the Flötenuhr (literally, "flute-clock"), music box, and other mechanical instruments. They have been transcribed most effectively for wind quintet by Frans Vester, the flutist of the Danzi Quintet, and many of them offer more substance than one might imagine, as well as all of the expected charm. The Mozart items are also familiar in keyboard arrangements, and the centerpiece of the Haydn set is the Grenadier March, which has been recorded more than once in its wind-band setting. Not all the music here is of this derivation, despite the heading of the collection: the major offering is one of the most attractive of the many wind quintets of Franz Danzi, for whom the Amsterdam-based performing ensemble is named. It is even more delicious than the miniatures, and "delicious" suits the performances, too. An enchanting program, very well recorded and accompanied by an intriguing essay by Conrad L. Osborne. R.F.

PEPE ROMERO: Famous Guitar Music. Tárrega: Recuerdos de la Alhambra; Capricho Arabe. Villa-Lobos: Prelude No. 1, in E Minor; Etude No. 1, in E Minor. Lauro: El Marabino. Albéniz: Asturias. Sagreras: El Colibiri. Sor: Introduction and Variation on a Theme by Mozart, Op. 9; Sonata in C Major, Op. 15. Pepe Romero (guitar). PHILIPS 9500 295 \$8.98.

### Performance: Intense and inward Recording: Excellent

There seem to be two kinds of Spanish classical guitarists-the steely-fingered ones, with a great deal of dash and color, who take a visceral approach even to a Bach transcription, and the gentler, more introspective ones, of whom Segovia is the supreme master, who seem to let you overhear their performances rather than throwing them at you. Pepe Romero is of the latter school, although this Malaga-born virtuoso, who was playing flamenco at the age of six, can unleash quite a spate of Latin temperament in his playing when the occasion calls for it. That is what happens during the passages of fancy fingerwork in the Villa-Lobos pieces heard on this program, in Albéniz's familiar Asturias, and in Sagreras' El Colibiri, a remarkable little tour de force in which a hummingbird dashes, flits, and hovers before our very ears. But it is in the second half of the concert, devoted largely to the more abstract works of Fernando Sor, that Romero really comes into his own as an introspective player of remarkable subtlety and elegance. Pepe Romero, by the way, is one of the celebrated quartet known as the Romeros, members of a family of brillant guitarists who come from southern Spain but now live near San Diego. Pepe himself heads the guitar faculty at U.S.C. They're lucky to have him. P.K.

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

## **KOSS**<sup>°</sup>CM LOUDSPEAKER SYSTEMS hearing is believing<sup>™</sup>

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