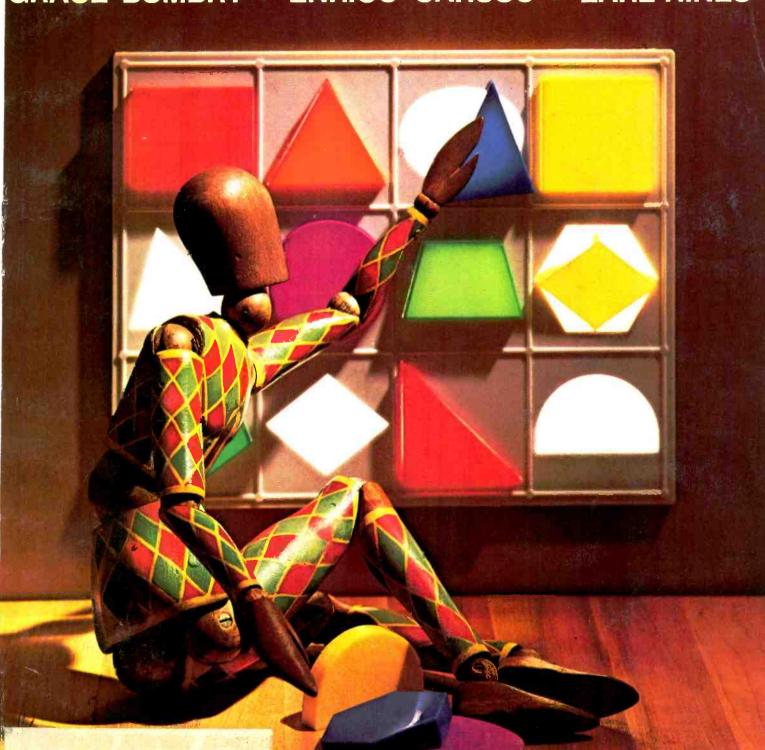
Stereo Review

JANUARY 1974 • 75 CENTS

HOW TO MIX AND MATCH YOUR HI-FI COMPONENTS GRACE BUMBRY • ENRICO CARUSO • EARL HINES



 PHENIX CILL
 AL 36067

 403 LAUREL MNR ESTS
 4

 E CLENN SMITH
 01

 S62912 -SIT 0403L091 M0V75 B 1J

18061



phase distortion, plus substantially better stability with four double tuned phase linear ceramic filters and four monolithic IC's in the IF section.

6-stage limiters

The IF section includes 6-stage limiter circuits. Used in conjunction with differential amplifiers in monolithic IC's, noise interference is completely elimin – ated with a signal to noise ratio of 75dB.

Exclusive Phase Lock Loop (PLL) IC circuitry in the TX-9100 multiplex section

Developed and used for the first time by Pioneer, the Phase Lock Loop (PLL) circuit is actually an electronic servomechanism. It maintains continuous and precise phasing between the pilot signal and the subcarrier, supplying optimum channel separation. Completely drift free, no alignment is ever required.

The PLL cannot be affected by humidity or temperature since there are no coils or capacitors to be detuned. This provides complete stability and reliability.

New pulse noise suppressor in the TX-9100 operates with computer control

This circuit operates automatically when it is switched on. It effectively blocks radiated noise from airplane and auto ignition systems, neon and traffic lights, etc. It does not interfere with frequency response and stereo separation. Whether the signal is weak or strong, this automatic 'brain' decides when the PNS gate circuit is to operate.

Unique muting control

A 2-position variable muting control uses electronic switching as well as reed relay switching. This eliminates interstation noise and the popping noise of tuning and detuning.

Complete command with a wide variety of controls

Whether it's for AM, FM or headset output levels, Pioneer provides greater cperating precision with three independently operated output level controls. A headset may be used without a following power amplifier. Precision tuning is achiezed with the aid of signal strength and tuning meters.

AM section highlights IC's

The entire AM section, following the front end, is a unitized IC. A monolithic IC replaces 84 individual components plus a ceramic filter. By using a differential amp circuit and a balanced mixing circuit, there are better spurious characteristics and special AGC amplification.

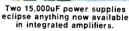
Great specs for great performance

	TX-9100	TX-8100	TX-7100
FM Sensitivity (IHF)	1.5uV	1.8uV	1.9uv
Selectivity	90dB	80dB	60dB
Capture Ratio	1dB	1dB	1dB
S/N Ratio	75dB	70dB	70dB
Image Rejection	110dB	100dB	85dB
Stereo Separation	40dB	40dB	40dB
Distortion (THD)			
Mono	0.2%	0.2%	0.2%
Stereo	0.3%	0.4%	0.4%
Spurious Response	110dB	100dB	100dB

The Amplifiers: SA-9100, SA-8100, SA-7100

Two separate power supplies utilize 30,000 uF total capacitance

You read it right. The power supply in the SA-9100 uses a total capacitance of 30,000 uF. 15,000 uF each for the balanced positive and negative power supplies. This completely eclipses anything now available in integrated amplifiers. This super high capacitance results in an absolutely pure DC voltage supply. There's constant DC voltage regulation regardless

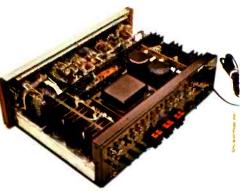


0

of line voltage changes and signal input. Even at extremely low frequencies there's stable power output, excellent transient response and minimum distortion — only 0.1% at any frequency between 20-20,000Hz for 60 watts output per channel.

These positive and negative power supplies provide absolute stability in all stages, even in the equalizer amp and proceeding to the control and power amps. Therefore, the signal lines become zero potential to completely eliminate the usual (and annoying) click noise of operating controls and switches.

Stability is increased even further by the differential amplifier used in the first stages of the equalizer and control amplifiers (also the power amp.) 100% DC negative feedback supplies excellent stability and transient response; it also eliminates distortion. To further increase



Interior view. SA-9100

Critics acclaim.







HIGH FIDELITY: "... The performance of the SA-9100 is so exceptional and the many extras in the way of switching options, and so on, so eminently useful, that we find it the most exciting piece of audio hardware we've yet tested from this company."

STEREO REVIEW: "... The TX-9100 unequivocally outperforms anything we have tested up to this time."

HI-FI STEREO BUYERS GUIDE: "(The SA-9100) is a powerhouse of sound level, performance and features. Works like something the chief engineer had built for his own use."

"The Pioneer TX-9100 AM/FM stereo tuner offers notably excellent performance and sound quality."

AMELITY

School and the way or so and so and a s

23.5

exceptional and the many and so or so environt

AUDIO: "You can't buy better audible performance than is achievable with Pioneer's new TX-9100 (AM-FM stereo tuner) at any price."

ECIO SERVE

SANDER PROPERTY BESTER Hearth action of the with Borea standarde was a standarde was processed to the standard of the standard

STEREO REVIEW: "This (SA-9100) is an essentially distortionless, bug-free, and powerful amplifier with exceptional flexibility ... A highly complex array of electronic circuitry has been packaged into a consumer product of relatively modest price without a trace of 'haywire' or slipshod assembly. It almost seems a pity to hide internal workmanship."

State Anion

Stereb Review EQUIPMENT TEST REPORTS "...unequivocally outperforms anything we have tested up to this time.



In tuners and amp Pioneer is th there's exceptionally high gain with extremely low noise. Two tuned RF stages with a 5-gang variable tuning capacitor contribute to the highest selectivity (90dB)

The time has come to completely re-evaluate the standard you now use to judge high fidelity performance.

With this new line of tuners and amplifiers, Pioneer presents many ingenious innovations in circuitry that are being used for the first time. However, this exclusiveness is only secondary. While each new circuit can be considered revolutionary by itself, what is even more important is that their combined capabilities achieve precision and performance heretofore unattainable.

The Tuners: TX-9100, TX-8100, TX-7100

FM front end - an engineering triumph

The height of sophistication the TX-9100's stabilized, drift-free front end replaces printed circuit boards with completely metallized construction. The same used in high precision communications equipment.

Employing three dual gate MOS FET's and a buffer circuit in the local oscillator,

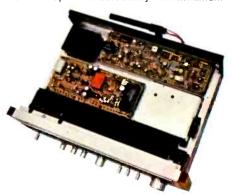


Exclusive heavy gauge die cast aluminum housing assures uncanny stability.

and astonishing FM sensitivity (1.5uV). The exclusive use of a heavy gauge die cast aluminum housing assures uncanny stability.

IF section - the epitome of advanced research

In the pursuit of excellence, significant new IF section technology was developed. The result is optimum selectivity with minimum



TX-9100 interior view Chrome plated shielded front end housing and multiplex section.

stabilization, special electronic regulator circuits are used. Transient response is also improved with a superb damping factor of 70.

The unique equalizer amplifier

To make certain that extraneous signals do not interfere with the input signal, the equalizer amp is totally enclosed and sealed to shield it against leakage.

There's also extra assurance of precision with special low noise metal film resistors and styrol capacitors. Both are manufactured under continuous computer control to highest laboratory test equipment tolerances: ±1% for resistors; ±2% for capacitors. Until now such precision has been unheard of in hi-fi equipment. Deviation from the ideal RIAA curve is only ±0.2dB.

Since a direct-coupled SEPP complementary circuit is used in the equalizer amplifier, virtually any dynamic phono cartridge can be accommodated without overloading or distortion. For example, with 2.5 mV sensitivity, the overload at 1KHz is an unbelievable 250mV, and 1200mV at 10KHz!

The power amplifier

To sustain the ultra sophistication of the equalizer and control amp sections, the power amp has a direct-coupled pure complementary SEPP circuit, double differential amplifiers and two constant current loads. The combined effect is the achievement of wide power frequency range and excellent transient response. 100% negative DC feedback is supplemented by 66dB dynamic negative feedback for minimum distortion and absolute stability. The pre and power amps can be used independently with a separation switch.

Exclusive direct-coupling in all stages

Until now direct-coupling has been used only with the power amplifier. Pioneer takes it a dramatic step further in the SA-9100 and SA-8100. Direct-coupling in all stages from the equalizer amp to the control amp to the power amp. More effective? Absolutely. It achieves the finest transient response, wider dynamic range, THD and IM distortion of only 0.04% (1 watt). It's an incredible achievement.

and loudness contour controls preference

result in lower gain. Once the desired volume is obtained. the volume control is used for fine adjustments within the given

bass and treble, it may also be used

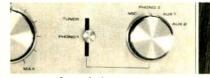
more advanced the position of the level set control, the lower the effective range of the loudness contour.

The original and positive

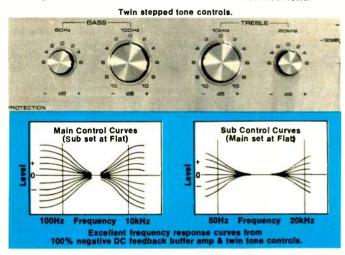
directly to the speakers because of direct-coupling, an automatic electronic trigger relay system is incorporated into the power amplifier. This protects the speakers against damage from DC leakage which can also cause distortion. It also prevents short

Maximum convenience for program source selection

While there is a multiple function rotary switch for microphone, phono 2 and two auxiliaries, Pioneer has included an



Convenient program source selection switch & control lever.



The control amplifier: Twin stepped tone controls custom tailor your listening.

Now you can make the most critical bass and treble adjustments with supreme ease. In fact, there are 5,929 tonal combinations to suit your listening room acoustics and to compare or compensate for component frequency response.

On the SA-9100 and SA-8100 four tone controls (two for bass, two for treble) make 2dB (2.5dB with SA-8100) step adjustments for the entire audio spectrum. Working together with the tone controls is a buffer amplifier with 100% negative DC feedback. The main bass control governs \pm 10 dB at 100 Hz; the sub-bass, \pm 6dB at 50 Hz. The main treble control governs ±10 dB at 10KHz and the sub-treble. ± 6dB at 20 KHz. This, plus the tone defeat control (described in the next paragraph) makes the SA-9100 the most exciting-to-use amplifier that has ever powered any hi-fi system.

New tone defeat switch

Because of the extremely wide variety (5,929) of frequency adjustments made possible by the twin tone controls, the tone defeat switch adds extra flexibility. Adjusting the tone controls to your satisfaction, you can flip the tone defeat switch. Bass and treble responses instantly become flat. When it is switched off you return to the original tone control settings.

Level set, volume adjust to listening

Three controls working together adjust to any degree of loudness. The level set control is the primary volume control. Its maximum loudness setting is 0dB.

Successive settings of -15dB and -30dB

SA-9100

SA-8100

SA-7100

range. While the loudness contour boosts with the level set control. The

speaker protector circuit

Since the signal is fed circuits in the power transistors.



when you want something better

additional convenience. A separate flip type lever control for instant switching between the more widely used tuner and phono 1 and any other single program source. Incidentally, both switches are shielded to protect the input against undesirable extraneous signal pickups.

Two-way tape duplicating and monitoring

There are two separate flip type switches on the front panel of the SA-9100 for tape-to-tape duplicating and monitoring. Two tape decks can be connected for recording, playback and duplicating in either direction, with simultaneous manitoring.

Level controls for phono 2, aux 2

In order to match the level of various inputs, individual level controls are provided for phono 2 and aux 2.

Speaker B control

This special control helps in the use of two pairs of speaker systems of different efficiencies. There is no sacrifice of damping or distortion when switching from one pair to the other.

Impedance selector for phono 2

An easy-to-use switch allows you to employ any phono cartridge input (25K, 50K, 100K ohms).

Two-position high & low filters

The low filter switch on the SA-9100 and SA-8100 has subsonic (below 8Hz) and 30Hz positions. The high filter switch has 12KHz and 8KHz positions.

Maximum versatility in program sources

Inaute	5A-9100	5A-8100	5A-7100				
Tape monitor—S/N	2-90dB	2-90dB	2-90dB				
Phono-S/N	2-80dB	2-80dB	2-80dB				
Auxiliary-S/N	2-90dB	2-90dB	2-90dB				
Microphone-S/N	2-70dB	2-70dB	1-70dB				
Tuner-S/N	1-90dB	1-90dB	1-90dB				
Outputs							
Speakers	3	2	2				
Headsets	1	1	1				
Tape Rec.	2	2	2				
Consistent power for every requirement							
	Phono—S/N Auxiliary—S/N Microphone—S/N Tuner—S/N Outputs Speakers Headsets Tape Rec.	Tape monitor—S/N 2-90dB Phono—S/N 2-80dB Auxiliary—S/N 2-90dB Microphone—S/N 2-70dB Tuner—S/N 1-90dB Outputs Speakers 3 Headsets 1 Tape Rec. 2	Tape monitor—S/N 2-90dB 2-90dB Phono—S/N 2-80dB 2-80dB Auxiliary—S/N 2-90dB 2-90dB Microphone—S/N 2-70dB 2-70dB Tuner—S/N 1-90dB 1-90dB Outputs Speakers 3 2 Headsets 1 1 Tape Rec. 2 2				

RMS @ 4 ohms single channel driven @ 1KHz

100+100 watts

44+44 watts 60+60 watts 40+40 watts 22+22 watts 36+36 watts 20+20 watts This new lineup of Pioneer tuners and amplifiers is unquestionably the most advanced available today. Yet despite

this overwhelming sophistication, they're

RMS @ 8 ohms both channels

driven @ 1KHz

65+65 watts

RMS power

driven 20-20KHz

both channels

60+60 watts

sensibly priced.

See your Pioneer dealer. He'll show you how this series of fine instruments can outperform any units in their price range. All prices include walnut cabinets. SA-9100—\$449.95; SA-8100—\$349.95; SA-7100-\$249.95

TX-9100—\$349.95; TX-8100—\$249.95; TX-7100-\$199.95

While not discussed here, Pioneer is also introducing the SA-5200 stereo amplifier and the TX-6200 stereo tuner for high quality hi-fi on a low budget. Only \$139.95 each, with walnut cabinet.

U.S. Pioneer Electronics Corp., 75 Oxford Drive, Moonachie, New Jersey 07074

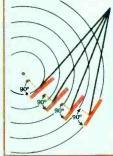
West: 13300 S. Estrella, Los Angeles 90248 / Midwest: 1500 Greenleaf, Elk Grove Village, III. 60007 / Canada: S. H. Parker Co.

Garrard introduces its new models.

ZERO 100c

The Zero Tracking Error Tonearm

True tangent tracking geometry. Zero 100c and Zero 92 tonearms.



ZERO 92

This season, we have brought out four entirely new units in the Component Line, and refined the already famous ZERO 100, now in its third year of production. This unique Zero Tracking Error automatic turntable, which has earned the overwhelming regard of the critics, now becomes the ZERO 100c, and includes further advancements; including a built-in, automatic record counter . . . making the ZERO 100c the finest automatic turntable available at any price.

The Garrard policy of pursuing useful technical innovations and resisting "change for the sake of change," has paid off handsomely this year. Most notably, the articulating Zero Tracking Error Tonearm, Garrard's revolutionary patented design, has been incorporated in the ZERO 92, a new model at lower cost than the ZERO 100c. In addition, three other models, the 82, 70 and 62 have been introduced. The entire series both in styling and features, reflect the ZERO 100c design philosophy.

This year, more than ever, there is a Garrard automatic turntable to suit your specific needs. Your dealer will help you select the model that will best compliment your system . . . whether that system is mono, stereo, 4-channel, matrix or discreet.

ZERO 100c

Two speed Automatic Turntable with articulated computer-designed Zero Tracking Error Tonearm. Features: Variable speed ±3%; Illuminated Stroboscope; Built-in automatic record counter; Magnetic anti-skating control; Sliding weight stylus force setting; 15° vertical tracking and cartridge overhang adjustment; Damped Cueing/Pausing in both directions; Patented Synchro-Lab Synchronous Motor. \$209.95*

ZERO 92

Three speed Automatic Turntable with articulated Zero Tracking Error Tonearm. Features: Lever type anti-skating adjustment; Sliding weight stylus force setting; 15° vertical tracking and cartridge overhang adjustments; Cueing/Pausing control, Damped in both directions; Patented Synchro-Lab Motor. \$169.95*

MODEL 82

Three speed Automatic Turntable with low-mass extruded aluminum tonearm. Features: Lever type sliding weight anti-skating adjustment; Sliding weight stylus force setting; 15° vertical tracking and cartridge overhang adjustments; Cueing/Pausing control, Damped in both directions; Patented Synchro-Lab Motor. \$119.95*

MODEL 70

Three speed Automatic Turntable with low-mass aluminum tonearm and fully adjustable stylus pressure setting. Features: Torsion spring anti-skating control; Cueing/Pausing control; 2 point record support; Patented Synchro-Lab Motor. \$89.95*

MODEL 62

Three speed Automatic Turntable with low-mass aluminum tonearm, fixed counterweight, and adjustable stylus pressure. Features: Torsion spring anti-skating control; Cueing/Pausing control; 2 point record support; Heavy duty four-pole Induction Surge Motor. \$69.95*

*Less base and cartridge.



MODEL 82



MODEL 70



MODEL 62

Stereo Review Re

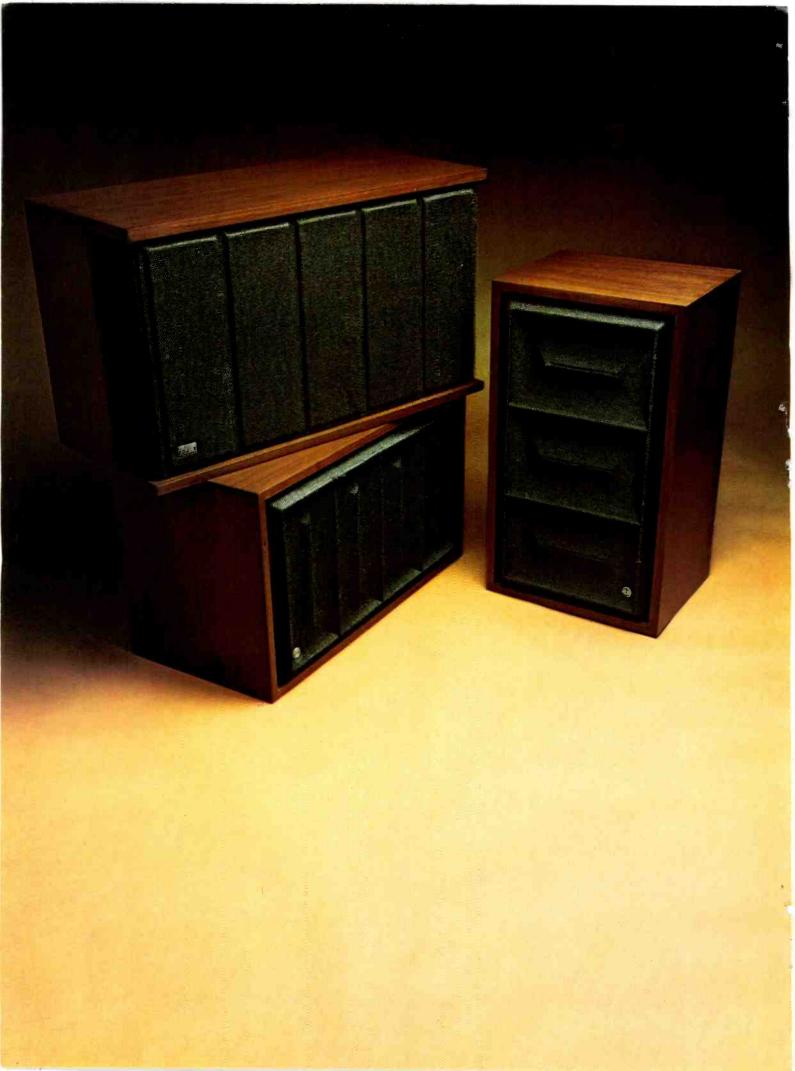
JANUARY 1974 • VOLUME 32 • NUMBER 1

THE MUSIC

THE MOSIC
GERSHWIN SEASON
His seventy-fifth anniversary inspires a rush of memoirs
THE BASIC REPERTOIRE
Paganini's Violin Concerto No. 1
GRACE MELZIA BUMBRY
An interview with the Met's new Salome
EXPERT ADVICE FOR CLASSICAL ROOKIES
Twelve classical superstars pitch in to help
EARL "FATHA" HINES
The story of one of jazz's first gentlemen of the keyboard
TODD RUNDGREN, PRODUCER The Runt takes on Grand Funk and the Dolls
POCO IN RETROSPECTIVE
Perhaps, under some circumstances, a "little" is enough
CHOOSING SIDES
Gershwin on Gershwin
BACH'S CHRISTMAS ORATORIO
Two new recordings enrich the Bach catalog
ENRICO CARUSO
The World's Greatest Tenor's first hundred years ERIC SALZMAN 114
THE EQUIPMENT
NEW PRODUCTS
A roundup of the latest in high-fidelity equipment
AUDIO NEWS
Views and comment on recent technical developments
AUDIO QUESTIONS AND ANSWERS
Advice on readers' technical problems
AUDIO BASICS Glossary of Technical Terms-6
TECHNICAL TALK
Some Thoughts on High-Frequency Response; Hirsch-Houck Laboratory reports on
the EPI Microtower MT2 speaker system, Nikko STA-7070 stereo receiver,
Wollensak Model 4765 stereo cassette deck, and B&O 3000 record player Julian D. Hirsch31
HOW IMPORTANT IS AUDIO-EQUIPMENT COMPATIBILITY?
A step-by-step examination of the crucial "interfaces" Julian D. Hirsch 60
INSTALLATION OF THE MONTH
Stacked Stereo
TAPE HORIZONS
Tape Things to Come
THE REVIEWS
BEST RECORDINGS OF THE MONTH83
POPULAR DISCS AND TAPES
CLASSICAL DISCS AND TAPES
CLASSICAL DISCS AND TATES
THE REGULARS
EDITORIALLY SPEAKING
LETTERS TO THE EDITOR.
GOING ON RECORD
THE SIMELS REPORT
ADVERTISERS' INDEX
122 LK HOLKS INDEA

COVER: Design by Borys Patchowsky; photo by Bruce Pendleton

Copyright © 1973 by Ziff-Davis Publishing Company. All rights reserved. Stereo Review, January 1974, Volume 32, Number 1. Published monthly by Ziff-Davis Publishing Company; Editorial and Executive Offices at One Park Avenue, New York, N.Y. 10016; Telephone: 212 679-7200. William Ziff, President; W. Bradford Briggs, Executive Vice President; Hershel B. Sarbin, Senior Vice President, Secretary, and Treasurer; Philip Sine, Senior Vice President, Also the publishers of Boating, Car and Driver, Cycle, Flying, Modern Bride, Popular Electronics, Popular Photography, and Skiing. One year subscription rate for U.S., U.S. possessions, and Canada, 87.00; all other countries, \$8.00. Second class postage paid at New York, N.Y. and at additional mailing offices. Authorized as second class mail by the Post Office Department, Ottawa, Canada, and for payment of postage in cash. SUBSCRIPTION SERVICE: Forms 3579 and all subscription correspondence should be addressed to Stereo Review, Circulation Department, P.O. Box 2771, Boulder, Colorado 80302. Please allow at least six weeks for change of address Include your old address, as well as new – enclosing if possible an address label from a recent issue.



If we told you how good these speakers are, you might not believe us.

But you've got to believe the numbers.

The specifications of the new Fisher Studio Standard speaker systems.

	ST-500	ST-530	ST-550
Total number of drivers	4	6	7
Woofer Diameter Voice-coil diameter Resonance (open-air) Magnet structure	1 cone 12" 2" 16 Hz 6 lbs.	l cone 15" 2" 14 Hz 13 lbs.	l cone 15" 2" 14 Hz 13 lbs.
Mid-range Voice-coil diameter Magnet structure	1 soft-dome 1½" 6 lbs.	1 soft-dome 1½" 6 lbs.	2 soft-domes 1½" 6 lbs.
Tweeters Cone diameter Center-dome diameter Voice-coil diameter	2 cones 2" 5/8" 9/16"	4 cones 2" 5/8" 9/16"	2 cones 2" 5/8" 9/16"
Side-dispersion units Voice-coil diameter		_	2 soft-domes 1½"
Crossover frequencies Woofer to mid-range Mid-range to tweeter Side dispersion	600 Hz 6000 Hz —	600 Hz 6000 Hz —	600 Hz 6000 Hz 1000 Hz
Controls (constant impedance) Mid-range Tweeter Side dispersion	3 pos. 3 pos.	3 pos. 3 pos.	3 pos. 3 pos. 3 pos.
Impedance (nominal)	8 ohms	8 ohms	8 ohms
Power-handling ability rms, 2 sec. rms, 60 sec. rms, long-term average	100 watts 50 watts 25 watts	200 watts 100 watts 50 watts	300 watts 100 watts 50 watts
Cabinet Dimensions Weight Material Finish	26"x15"x12" 45 lbs. Walnut Semigloss	27½″x16¼″x13″ 56lbs. Walnut Semigloss	30"x17"x12%" 75 lbs. Walnut Semigloss
Price	\$199.95	\$249.95	\$349.95

We're not going to use this space to sing the praises of our speakers.

Instead, we'll tell you why the specifications are so impressive. The Fisher Studio Standard speakers are based on a new design concept called controlled dispersion. Controlled dispersion simply means that the Fisher speakers sound as good off-axis as they do on-axis, because the proportion of reflected sound to direct sound has been carefully calculated. A number of the drivers in each system has been offset at a predetermined angle, for optimum evenness of dispersion.

Thus, the Fisher Studio Standard speakers provide the advantages of a reflectant or an omni system with none of the excessive sound-spreading often attributed to that design.

If you find all of this difficult to believe, we remind you that the proof is in the chart on the left.

Fisher Radio, 11-40 45th Road, Long Island City, N.Y. 11101.

The Fisher Numbers speak louder than words.

Stereo Review

PUBLISHER EDGAR W. HOPPER

EDITOR WILLIAM ANDERSON

MANAGING EDITOR WILLIAM LIVINGSTONE

MUSIC EDITOR JAMES GOODFRIEND

TECHNICAL EDITOR LARRY KLEIN

ART DIRECTOR BORYS PATCHOWSKY

COPY EDITOR LOUISE GOOCH BOUNDAS

ASSOCIATE TECHNICAL EDITOR RALPH HODGES

> POPULAR MUSIC EDITOR STEVE SIMELS

ASSISTANT MUSIC EDITOR VIVIENNE WINTERRY GOODMAN

> PRODUCTION EDITOR PAULETTE WEISS

CONTRIBUTING EDITORS CHRIS ALBERTSON MARTIN BOOKSPAN MARTIN BOOKSPAN ROBERT S. CLARK NOEL COPPAGE RICHARD FREED DAVID HALL JULIAN D. HIRSCH GEORGE JELLINEK GEORGE JELLINEK
IGOR KIPNIS
IRVING KOLODIN
PAUL KRESH
REX REED
PETER REILLY
STEPHEN E. RUBIN
ERIC SALZMAN
CRAIG STARK
JOEL VANCE
POPER WINDELER JOEL VANCE ROBERT WINDELER

> LONDON EDITOR HENRY PLEASANTS

ADVERTISING DIRECTOR JAMES J. SULLIVAN

ADVERTISING SERVICE MANAGER MADELEINE LITTMAN

GROUP VICE PRESIDENT **ELECTRONICS & PHOTOGRAPHIC** FURMAN HERR

ASSOCIATE PUBLISHER STANLEY NEUFELD

EXECUTIVE ASSISTANT PEGI McENEANEY

Editorial and Executive Offices Ziff-Davis Publishing Company One Park Avenue, New York, New York 10016 212 679-7200 : 679-7200 stern Advertising Manager: Richard J. Halpern Midwestern Office: The Pattis Group 4761 West Touhy Ave., Lincolnwood, Ill. 60646 312-679-1100 Arnold S. Hoffman Western Office 9025 Wilshire Boulevard Beverly Hills, California 90211 213 273-8050; 272-1161 Western Advertising Manager. Bud Dean

Western Advertising Manager. Bud Dean Japan: James Yagi Oji Palace Aoyama, 6-25, Minami Aoyama 6-Chome, Minato-ku, Tokyo, Japan Telephone 407-1930/6821 Circulation Office P.O. Box 2771. Boulder, Colorado 80302

1.0. BOX 4/11 BOUIGET, Colorado 80302 EDITORIAL CONTRIBUTIONS must be accompanied by return post-age and will be handled with reasonable care; however, publisher as-sumes no responsibility for return or safety of art work, photography, or manuscripts.

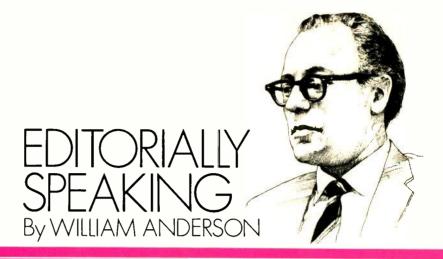
Member Audit Bureau of Circulations







ZIFF-DAVIS PUBLISHING COMPANY William Ziff President ZIFF-DAVIS PUBLISHING COMPANT
William Ziff, President
W. Bradford Briggs, Executive Vice President
Hershel B. Sarbin, Senior Vice President, Secretary, and Treasurer
Philip Sine, Senior Vice President, Marketing
Frank Pomerantz, Vice President, Creative Services
Frank Pomerantz, Vice President, Greative Services
Glward D. Muhlfeld, Vice President, Orland Division
Irwin Robinson, Vice President, Travel Division
George Morrissey, Vice President
Sydney H. Rogers, Vice President
Sidney Holtz, Vice President
Lawrence Sporn, Vice President
Lawrence Sporn, Vice President



LESS MEANS M.O.R.

WHEN Forbes, the business and investment magazine, observed in its September 15 issue last year that the American record industry's palmy days appeared to be about over, that the steam (or whatever it was) that had pushed annual sales of recordings along a steeply rising curve through the Sixties to an incredible 1972 high point of \$1.9 billion appeared to be cooling off, the industry reacted predictably: executive sputterings and trade-press editorials deplored the outsider's nervy ignorance. But Forbes did have a market-wise eye on a number of telltale signs: the disappearance of some highly placed faces together with rumors of payola and other unspeakable corruptions, unusual economies in such areas of conspicuous consumption as company junkets and party giving, and, particularly, the industry's haphazard approach to its a-&-r chores, which may be briefly described as a system of signing up all the ducklings in sight in the hope that one of them will grow up to be a swan.

Sputterings notwithstanding, the industry itself had for some time been aware that the frost was on the pumpkin, that the rock bandwagon was careening down the road out of town, and that they had to find-quickly-something better to pin their wintry futures on than an engineered nostalgia boom. Signs and portents visible and audible from this listener's chair indicate that what they appear to have found (it had of course been there all along) is the Middle of the Road, and crews are already out putting it in shape to bear some heavy Seventies traffic. Just in time, too, for what Forbes and the industry were not prescient enough to foretell was an event that makes such a move mandatory: the developing shortage of polyvinyl chloride, the plastic material of which records are made (see Music Editor James Goodfriend's 'Going on Record" column this month). What it means is that (as Forbes so nicely put it) "in a business where waste was a way of life" waste must stop. Quite simply, we can no longer afford the "throwaway art" popular music became in the Sixties. The amateur hour is over, and from now on only reliable, known-quantity professionals need apply. No more hit singles or albums distilled by mixer Merlins out of costly hours of inept noodling before studio mikes, no more two-album contracts for groups that have yet to earn their spurs on the sock-hop circuit, no more six-figure media blitzes to launch a heavy-metal dreadnaught that will sink into oblivion even before it can break up. It was a "way of life," and it was, to the tidy mind at least, an outrageous one. But it had its points. It did, after all, give us the Beatles, and there was a saving freshness, novelty, and heart-warming earnestness in the best of it that made it easy to overlook the tendentious pretentiousness of the worst.

We shall be losing a good deal of that, but what will we be gaining? It would be a mistake, I think, to get too far ahead of ourselves, to sit upon the ground and conjure up dark visions of wall-to-wall Carpenters with a little Wayne Newton border, American popular music is perhaps not a bottomless well, but it is at least a very rich mine, and who knows what wonders are still to come from it. We do not at the moment have a superabundance of either the polished, professional, younger performing talent or the kind of inspired songwriters and lyricists that quality MOR needs, but we do have plenty of older experts still around to teach, and a literal treasure-trove of great old music to inspire.

If I appear to have slighted classical music in these remarks, it is not because it has no middle of the road but because, classically speaking, we have never left it, because the catalog is largely made up of big-name artists performing the big-name works of big-name composers. The vinyl shortage may wipe out what little work has been done in the past with younger artists, new music, and even new old music, and that's a pity. But if we keep real quiet over here in the corner, perhaps the industry will not think too seriously about refilling its popular canteens at the expense of the small but vital classical reservoir that is left.

Instead of talking about a cassette deck with 3 heads we make one.

The RS-279US.

It has an HPF™ monitor head. So every recording you make will be as sharp and clean as it should be. That's recording insurance. The kind of insurance that great specs alone can't give. Only a monitor head can.

The monitor is more important in cassette than it ever was in reel-to-reel. Because the cassette can drag or jam without warning. And it's prone to recording overload. Which can ruin a potentially great recording if it isn't detected.

The RS-279US also has many other desirable design and convenience features. Like a dual motor system. With a DC motor for the reeltable-drive and our exclusive direct drive DC motor for the capstan. Adjustable Dolby*. Switchable bias for CrO₂ tapes. Solenoid-operated function controls. Locking pause. Memory rewind. And Auto-Stop.

And the specs are just what you'd expect from a deck with those credentials. The signal-to-noise ratio is better than 59dB. Frequency response is from 20-16,000 Hz. And wow and flutter are less than 0.10%.

The RS-279US has the hallmarks of a great cassette deck. Plus one that puts it ahead of other decks. Our patented HPF™ monitor head.

The concept is simple. The execution is precise. The performance is outstanding. The name is Technics.

*Dolby is a trademark of Dolby Laboratories Inc.

200 PARK AVE., NEW YORK, N.Y. 10017 FOR YOUR NEAREST AUTHORIZED TECHNICS DEALER, CALL TOLL FREE 800 447-4700. IN ILLINOIS, 800 322-4400.





LETTERS TO THE EDITOR

Harold Arlen

• As a long-term admirer of Harold Arlen (November) I bow to none and I fully agree with the person who said, "If it's one of your favorite songs Harold Arlen probably wrote it." But one thing he did not write was Cabin in the Sky as suggested by the otherwise attractive cover by Frederic Marvin. That honor belongs to the late Vernon Duke, as Mr. Jablonski could have told you if anyone had bothered to show him the illustration for his all-too-short article.

BRUCE KENYON New York, N.Y.

If Mr. Kenyon will bother to examine the cover a little more closely, he will discover that, with one exception (Get Happy), all the titles on the cover are show titles and not song titles. As for Cabin in the Sky, Harold Arlen wrote two memorable songs for the film version of that fine Vernon Duke show—Life's Full of Consequence and Happiness Is a Thing Called Joe—a fact the article mentions. Perhaps Mr. Kenyon might have found the article a little longer had he read it more carefully.

• Edward Jablonski's Harold Arlen article is entirely delightful reading, but one photo caption (Gershwin, Arlen, and Tibbett) is chronologically incorrect—dated 1939. George Gershwin died in 1937.

James Browning New York, N.Y.

• You overlooked a very important listing in your "Arlen on Disc" section, namely, "Ella Fitzgerald Sings the Harold Arlen Songbook" on Verve. I have Volume II, and have not been able to locate Volume I. If these two discs are no longer available, they should be.

FRANK D'AQUILA Arlington, Va.

Yes, they should, but MGM reports that the discs have been discontinued.

Keeping the (Classical) Doors Open

• I think it is very foolish to recommend to newcomers such as Messrs. Martin and Gould (Letters, September) Bach's sacred Brandenburg Concertos or some of Mahler's songs. These are great pinnacles of classical art, to be sure, but they are definitely *not* for beginners in the vast field of classical music. Though television has mangled many pieces of music in commercials (who can forget or forgive the makers of Rice Krispies for their misuse of "Vesti la giubba"?) and program themes, many people have heard and learned to love these tunes from television. It is to these already familiar tunes that budding lovers of classical music should turn.

JOHN J. PLUTA Carteret, N.J.

The Editor replies: There you go, shutting those classical doors again! I would be willing to give Mr. Pluta's somewhat elitist position a few minutes' respectful attention simply on the basis of its deceptive logicality-except that I know better. There are just too many people around whose initial yelp of Eureka! in the classical field was set off by very difficult, very abstruse, and very unfamiliar music indeed-say, Beethoven's late quartets. Fact is, we are all so inescapably steeped in the Western musical tradition, its melodic, rhythmic, and harmonic content, that we know much more about all music than we well realize. Popular and classical music share, borrow, and cross-fertilize constantly, with the result that a whole history of music can inform even the apparently aimless noodling of a whistler on the street. We cannot say at any particular moment what any one of us has heard or overheard in movies, in the theater, in concert halls and elevators, on radio, turntable, tape, or TV, but it is a lot, more than enough "music education" to guarantee that there is little in the classical tradition (or any other) that is likely to come as a complete surprise to us if only its jealous guardians will let us hear it. The Brandenburg Concertos are wonderful music, of course, but there is nothing sacred about them. Hallelujah Chorus,

• It is surprising that none of the respondents to the Editor's inquiry about classical music for the uninitiated mentioned what the Argonauts (and the Sirens) knew—the irresistible power of song. I observed it more than a decade ago during frequent visits to a record shop with outdoor speakers located next to a beauty salon. Time and again, hair-curlered patrons—apparently unfamiliar with classical music—burst in to ask breathlessly, "Whoev-

er is doing that gorgeous singing?" Jussi Bjoerling was the best draw; his "Dagen gick langsamt" from Prince Igor (RCA Victor LM-2269) established a record for the most incursions per week.

A. C. HALL Dallas, Texas

• In response to your request for dooropening classical works, may I suggest that the door may already be open for some people without their knowing it - classical music may already have been established in their awareness through its use in another field of art or entertainment. My personal discovery in this area came some fifteen or more years ago while watching Buster Crabbe starring in the old Flash Gordon movie serials then being shown on Saturday morning TV. The theme music that made an impression upon me, I learned, was Liszt's Les Préludes. From that point on, it was simple to work up a list of classical music that I liked. Perhaps some of the following examples will help trigger someone's memory: Captain Video, Wagner's Flying Dutchman Overture; Sgt. Preston, Reznicek's Donna Diana Overture; NBC News, Beethoven's Scherzo from the Ninth Symphony; and, of course, Elvira Madigan, Mozart's Piano Concerto in C Major.

JONATHAN PALMER New York, N.Y.

Mr. Palmer's point is well taken; familiarity doesn't always breed contempt. Let's see, now, it was Clair de Lune for Big Sister, the William Tell Overture for the Lone Ranger, Tchaikovsky's Fairy Tales for Let's Pretend, and.

Music or Musicology?

• I couldn't agree more with your eloquent reply to Ferdinand Bennett's complaint (Letters, November) that you have misguided the "classical rookies" who came to you for help. It seems to me that he confuses music with musicology, and places the cart squarely before the horse.

To the contrary, I greatly prefer to listen to music before I know the name of the piece or the composer. Only in this way can I rid myself of the influence of other people's opinions, my own prejudgments based on whether I like the composer's other work, and so forth. I have had some surprising experiences in this way, and opened up vistas (how can I adapt that word from the eye to the ear?) of musical beauty that others would have closed for me. To put the cart where it belongs, once my emotional attention has been engaged by hearing and liking a certain piece of music, I am naturally impelled to find out as much as I can about the music and its composer. I say 'naturally" because I believe that this is a basic feature of the human condition. But this is secondary to the glorious experience of hearing great music.

I have been awed by many a beautiful sunset without knowing the time, temperature, and barometric pressure—before, during, or after the event.

> Charles J. Sheedy Woodhaven, N.Y.

And Other Latin Delights

• I wish to congratulate STEREO REVIEW for the warm and encouraging review of soprano Martha Pérez's recital in New York ("La Famosa Cecilia Valdés," November), I (Continued on page 12)



Can you live without a 400 watt amplifier?

Maybe. If you don't mind the loss of quality caused by clipping during the more dramatic passages in your favorite records. Julian Hirsch put it this way: "Anyone using a low-efficiency speaker... with an amplifier in the 30 to 50 watt class

cannot approach realistic listening levels



without severe clipping." If you want to listen at a real-life level without distortion, you need at least 400 watts of amplifier power. At \$499, why live with anything less than the Phase Linear 400?

Phase Linear 400

THE POWERFUL DIFFERENCE

PHASE LINEAR CORPORATION
P.O. BOX 549, EDMONDS, WA. 98020



CIRCLE NO. 35 ON READER SERVICE CARD

understand that, apart from her participation in the production of many zarzuelas, she is an excellent opera singer who has to her credit an appearance at La Scala in Milan.

Cecilia Valdés, the work of the notable Cuban composer Gonzalo Roig, is based upon one of the first novels written in the Island (by Cirilo Villaverde) during the first half of the nineteenth century. Ernesto Lecuona's famous zarzuela Maria la O was initially titled Cecilia Valdés, but he found that the title had already been copyrighted by Roig, so he changed it. Maria la O is a minor character in the novel but her name is (conveniently for Lecuona) an exact syllable-for-syllable substitution. The plot was slightly changed, but the two zarzuelas are almost identical.

HORACIO A. SICRE Washington, D.C.

Carpenter Carps

• 1 am not sure how to interpret Peter Reilly's review of the latest album by the Carpenters in the November issue. I venture to say that Mr. Reilly should bring himself up to date with respect to the tastes of the young people of the Seventies.

As the youth director of a large church, I saw both my junior high and high school youth groups playing the album over and over again at late summer swimming parties. I'll admit that most of their parents approve of the Carpenters' music, but it doesn't necessarily follow that the young people are turned off or bored by this album.

If satire was Mr. Reilly's intention, this was satire at its worst. I suggest that Mr. Reilly stick to reviewing music (which he does very well), and leave satire and other things to those who are better equipped and/or trained.

James J. Stewart La Jolla, Calif,

Mr. Reilly replies: Satire has been in the worst of taste at least since Jonathan Swift because it suckers the gullible, discomfits the smug, and unmasks the self-righteous. All these qualities are abundant in human society, old and young; it is the sense of humor, alas, that is in short supply. I immodestly propose that Mr. Stewart try to find a little among his young parishioners, using my review as a lantern.

 Peter Reilly's non-review of the latest Carpenters album "Now and Then" (November) fills me with cold fury. As a parent I have a moral obligation to set my kids on a good course, and here comes this sneering put-down of everything parents do and stand for, which will be read by every kid between here and Podunk! The implication is crystalclear to the average kid: parents are hypocrites, helping around the house is a crashing bore, pot and shacking up are good, sports and breakfast and toothbrushing are a drag, what parents think and want you to do is so much tripe. It is obvious that Reilly is either not a parent, or has an abysmally ignorant understanding of kids' minds (out of kindness I discount the alternative, which is that he is deliberately out to corrupt them). I might add, at this point, that I've been working with kids for fifteen years now as a psychologist, coach, and teacher

Now, I've heard a couple of Carpenters albums and you can have them, but that's not the point. Where is the review itself? How about the vocals, the orchestration, phrasing, tempi? Is Reilly a professional reviewer or a

put-on? If he can't stand the Carpenters, then how about letting somebody else review their albums? Dammit, I bought a subscription from you so that I could gain some insight into the relative merits of the artists, not to hear puerile mouthings from parent-haters and anticulture advocates. This kind of pseudo-sophisticated non-review is becoming more and more prevalent in STEREO REVIEW. If Reilly has his emotional hangups that's his business, but he has no business inflicting them on the rest of us. And—more important—he has no business corrupting my kids, or anybody else's, for that matter.

RICHARD F. OLES Baltimore, Md.

Mr. Reilly replies: Mr. Oles has heard and reviewed the Carpenters—"you can have them" (not much of a review, but let it pass). The point is, would he be willing to carry that just a bit further and reflect upon the (unthinkable) possibility that listening to the Carpenters may, in its own subtle way, be corrupting? And if that is true, wouldn't he warn his kids? If I have accurately recorded a few current youth attitudes, it doesn't necessarily mean that I endorse them—but helping around the house is a crashing bore!

The fact that Peter Reilly doesn't like the new Carpenters album, "Now and Then" (November), doesn't faze me at all; Mr. Reilly is answerable to no one in his personal judgments. What bothered me was that he did not give the album a fair comparison to other albums of the same type. His "review" consisted of a three-paragraph monologue by an irate hardhat father that was cute (in the sense that the Osmond Brothers or the Brady Bunch are cute) but did not fulfill the basic requirements of a review: for the type of music the Carpenters produce, was it a good album? I am shocked that Mr. Reilly would make such a serious artistic error. That does not, however, change the fact that "Now and Then" is an enjoyable, unpretentious, 100 per cent listenable album that thoroughly fulfills its purpose—to entertain. Did Mr. Reilly lose his cufflinks embossed with ars gratia artis?

MIKE W. BARR Akron, Ohio

Mr. Reilly replies: Nope, still have my cufflinks and my pretensions. Among them is the conviction that a review need not always be descriptive of the work itself; it is sometimes instructive to examine the received opinion instead. The Carpenters are now a known marketing entity, pros giving their fans precisely what they want to hear. All the votes are in, and they are polarized approximately as described in my review. I find that both interesting and sad—ars gratia commercii.

Birgit for Babs

• Alice Babs ("Choosing Sides," November) is reportedly Birgit Nilsson's favorite singer. Babs has been appointed Official Singer at the Royal Court of Sweden, and her portrait is in the national portrait collection. The latter is quite an honor because few women have been asked to sit for this collection.

JIM BLAUERT Riverside, Calif.

Barefoot Shoemakers

 James Goodfriend's piece ("Going on Record," November) points up the "Barefoot (Continued on page 14)

How much would you expect to pay for a turntable with these features?



\$160?

\$180?

\$220

If you know something about turntables, you know that, as a general rule, the more features you get, the more money you pay.

With that in mind, add up the features of the ELAC/Miracord 625 automatic turntable shown here, and see if you can guess

the price.

1. Exclusive ELAC/Miracord Push-Button Controls. Less than an ounce of pressure activates any of the 4 buttons. One is a stop/reject button, the other 3 are start buttons programmed to play 7," 10" and 12" records.

The push-button system eliminates shaking caused by conventional lever-type controls that cause the tone arm to skitter across the record and damage it.

2. Two Magic Wand Spindles. One holds up to 10 records for really long playing. The other is for playing a single record, or for continuous repeat playing of a single side.

3. Precise cueing device. This lets you interrupt a record, then gently drop the arm again into the same groove.

Or, in its raised position, you can locate

Worth?

ELAC Products, B

Sound Company,
New York 11735.

the arm anywhere you want.

4. Adjustable anti-skating device. This adjusts the anti-skate for any stylus pressure, to prevent distortion and uneven wear.

Dynamically balanced tone arm for precise tracking.

6. Heavy, pressure-formed turnlable platter for smooth steady motion.

7. Balanced four-pole asynchronous motor for unerring speed.

8. The most important, most exclusive feature of the Miracord 625 is one that you can't see. It's a reputation for quality craftsmanship and attention to detail that has made the ELAC name famous.

How much does that kind of quality cost? Much less than you'd expect. The Miracord 625, with features that you'll find in much more expensive models, sells for less than \$150. lsn't it about time you got more than your money's

ELAC Products, Benjamin Electronic Sound Company, Farmingdale, New York 11735.

You can't rush craftsmanship.

LAFAYETTE 1974 CATALOG 740



474 Pages

The World's Largest Consumer Electronics Catalog

LAFAYETTE Stereo/Hi-Fi Components • Auto Accessories • Educational and Science Equipment • Tools and Test Equipment • Electronic Security Devices • TV Sets and Antennas • Public Address Systems • CB Transceivers and Walkie-Talkies • Photography Equipment • Ham Gear, Police and Fire Monitor Receivers • Typewriters, Adding Machines, Calculators • Marine Electronics • Musical Instruments and Amplifiers • Books, Parts and More!

Send Today!

For your FREE 1974 Lafayette Catalog 740

Your Complete Electronics Buying Guide

Stores From Coast-to-Coast



Lafayette Radio Electronics P.O. Box 10, Dept. 11014 Syosset, L.I., N.Y. 11791

Send FREE 1974 Catalog	11014
NAME	
ADDRESS	
CITY	
STATE ZIP	

CIRCLE NO. 26 ON READER SERVICE CARD

Shoemaker" syndrome. I will never cease to be amazed at the inadequacy or even total absence of playback facilities in the homes of musicians. To a lesser degree, this is true also of record reviewers. The irony of the situation is that the most impressive rigs are to be found in homes whose owners can't tell a harp from a harpsichord.

GIVEON CORNFIELD Malibu, Calif.

World's Greatest Tenor

• George Jellinek's remarks in the October issue concerning tenor Richard Tucker's joint Carnegie Hall recital with Robert Merrill are fully justified and long overdue. For the longest time music critics (and Tucker himself) have generally overrated Mr. Tucker, calling him "the world's greatest tenor" and even comparing him closely to the immortal Enrico Caruso. While giving Tucker his proper due, Mr. Jellinek tersely cites the major problems with the tenor's style and vocal production. To these ears, the greatest tenor in Italian opera today is Carlo Bergonzi. No tenor since Jussi Bjoerling has equalled Bergonzi's musicianship, dynamic ability, vocal control, and dramatic sensitivity. Unfortunately, Bergonzi has recorded only one opera recital since 1958. I hope he will soon record others, perhaps a disc of opera duets with Cornell MacNeil and another of Italian songs.

THOMAS R. WILSON Downers Grove, Ill.

The Original Eric Andersen

• Thank God for Noel Coppage's review of "Broadside Reunion, Vol. 6" in the September issue of Stereo Review. Otherwise, Eric Andersen's Long Time Troubled Road would have gone by unknown to me, and I pride myself on keeping up with his work. While I am not sure I would place it right at the top of his songs, alongside Thirsty Boots or Is It Really Love at All, for instance, even Eric's lesser works are worth more time than most of the stuff that gets on records these days. It is time this guy got some notice in the press.

NED HARWOOD Princeton, N.J.

Applausable Solution

• The letter from reader Philip J. Runkel of Eugene. Oregon about applause on commercial recordings in your October issue certainly struck a responsive note in me. The worst affront of this type to which I was ever subjected was on the "Benny Goodman Today" album (London SPB-21). The last number on side one had twenty-five seconds of applause: on side two. one minute and thirty seconds; and on side four, one minute and forty-five seconds—a total of almost five minutes.

If the record industry must prove to us that a recording is made live, three seconds of fullvolume applause with a one-second fade-out is surely enough to do it. Could this not be suggested as an industry standard?

> DALE MADSON Billings, Mont.

Simon's Hassler

• I thoroughly enjoyed Noel Coppage's perceptive review of Paul Simon's excellent new album "There Goes Rhymin' Simon" (October), and agree that *American Tune* is one of the album's best songs. Credit for the "lovely, twisting melody" must go, however, to the composer Hans Leo Hassler (1564-

1612). This tune, Herzlich tut mich, is usually found in a setting by J. S. Bach of the Passion Chorale, O Sacred Head, Now Wounded.

ROBERT E. DU BERT, JR. Rochester, N.Y.

Mr. Simon is always quite candid about his inspirations, tracing Bridge Over Troubled Water, for example, back to such influences as a Bach cantata and the gospel group Swan Silvertones.

Record-Listening Clubs

• STEREO REVIEW readers, especially those who also read the British journals, are probably aware of the numerous record-listening societies and clubs that exist in England, but may not know that at least one counterpart exists in the United States. When it reaches its 426th program on January 11. the Disc-and-Needle Club (which holds monthly meetings in members' homes in Chicago and its suburbs), will be celebrating in a gala way its fortieth anniversary. That we have been able to hold together this long attests, we think, to the power of good music and the fellowship that flows therefrom. Of course we have had membership turnover, but three charter members are still with us and we also now have some second-generation members

> F. HARRY KRAMER Woodridge, Ill.

Miscellany

• In the dialogue between Hugh Foster, Jr. and the editor (Letters. November) the subject of using an old stylus to play library circulation records inspires the question: Can playing a record as badly treated as some library discs are really damage a good stylus? In other words, is Mr. Foster actually protecting his stylus, as he no doubt believes, or is he merely accentuating record wear, as you point out?

Secondly, in your response to Brian Doherty about the meaning of Etaoin Shrdlu. you forgot to point out his role as the patron saint (or printer's devil) of typos. Also, that this was once considered to be the start of the alphabet, the letters listed in order of frequency of occurrence in normal English writing. I say "once" because some of the letters, after etao . . . are so close together that a different survey may, and frequently does, slightly alter the individual frequencies, and thus the order of the letters.

Lastly, your July cover reminded me of a volume I received in 1946, called *The Music Lovers' Almanac* (published by Doubleday, 1945, and edited by William Hendelson and Paul Zucker). It has 366 pages, each containing items of musical interest (limited to classical areas) that occurred on that date, and a biographical (or musicological) text. This book still holds great fascination for me, for I can select any date and be informed of what major events occurred in musical history. There is also an extensive index which guides me to most subjects. I imagine it is long since out of print, but there might be good promise in a new edition.

THOMAS E. LOUIS Dobbs Ferry, N.Y.

Unless a record has deteriorated to the level of emery board, chances are greater that a bad stylus is ruining good records than vice versa, diamond simply being a harder substance than vinyl.



Neil Diamond is an artist who creates scenes with music. So when he decided that state-of-the-art sound systems be used during press premières to reproduce his original music score for the film ONATHAN LIVINGSTON SEAGULL,* realism in terms of spectral balance, spatial character, and lifelike sound-power levels were mandatory requirements.

To reproduce the music he created, Neil Diamond personally selected BOSE 901 Speakers, commenting: * 'After auditioning what were reputed to be the best high fidelity speakers or. the market today, I chose BOSE 901 Speakers because they offer the ultimate in theatre music reproduction." This will come as no surprise to thousands of BOSE 901 owners around the world who believe they have the ultimate in music reproduction in the home.

In our continued quest of audible perfection, we have introduced the new BOSE 901 SERIES II Speakers – a product of over 15 years of research in musical acoustics.† We invite you to compare the 901s with any speaker on the market today, regardless of size or orice. And judge for yourself if you agree with Neil Diamond's selection and with the rave reviews of the music sand equipment critics.

For information on the 901 SERIES II, complimentary copies of the reviews, and a report on the theatre sound sys-competition, circle your reader service card or write Dept. \$1

*Original motion picture soundtrack recording

available on Columbia records and tapes.
†This research is presented in the article "Sound Recording and Reproduction" published in TECHNOLOGY REVIEW(MIT), Vol. 75, No. 7, June '73. Reprints are available from BOSE for fifty cents a copy.

CIRCLE NO. 10 ON FEADER SERVICE CARD

The Mountain, Framingham, Mass. 01701



"Self-Portrait in a Checkered Sweater" (1936): Gershwin by Gershwin

GERSHWIN SEASON

Reviewer Henry Pleasants flushes a covey of memoirs

It is a mark of George Gershwin's unique place in the history of American music and in the hearts of Americans—and not only Americans—that the seventy-fifth anniversary of his birth has prompted a spate of books rather on the order of that which attended the two-hundredth anniversary (in 1970) of the birth of Beethoven.

It is a curious distinction. Gershwin was not a Beethoven, certainly, but he and Beethoven had something in common. As with Beethoven, Gershwin's significance transcended his music. Just as no earlier composer had been as German as Beethoven, despite his long residence in Vienna, so no other composer has been as utterly American as Gershwin.

Like Beethoven, Gershwin, in speaking for himself, spoke also for a culture and an age, in his case for a newly self-

The Gershwin Years, by Edward Jablonski and Lawrence D. Stewart. Doubleday, New York (1973), \$12.95, 416 pp.

The Gershwins, by Robert Kimball and Alfred Simon, Atheneum, New York (1973), \$25.00, 292 pp.

Gershwin, His Life and Music, by Charles Schwartz. Bobbs-Merrill, New York (1973), \$12.50 (\$15.00 after December 31), 428 pp.

The New York Times Gershwin Years in Song. Quadrangle, New York (1973), \$17.50, 323 pp.

Lyrics on Several Occasions, by Ira Gershwin. Compass Books (Viking), New York (1973), \$3.50 (paper), 371 pp.

assertive America breaking loose from its European moorings but still rather overawed by its European cultural heritage. Like Beethoven, he achieved symbolic as well as artistic status. And it is the symbolic element, I think, as well as the music, that has encouraged and nurtured the Gershwin legend.

He may not even have been the greatest songwriter of his generation. Kern, Berlin, Porter, Arlen, and Rodgers were as successful as he, or more successful. Other composers, before and since, have blended the Afro-American and European idioms in concertos, suites, and operas that are more sophisticated in terms of formal mastery than Gershwin's "serious" excursions.

But none of his songwriter contemporaries made the impact upon society that he did, nor was it merely because he alone among them took on the larger European forms. The publicity generated by Rhapsody in Blue, An American in Paris, and Porgy and Bess kept his name in the news, but it was the personality, not just the high aspirations, that sustained the name—and gave the music its individual stamp. As Kay Swift remembers him in The Gershwins, "He and his music were all of a piece—he was exactly like his music."

No assessment of Gershwin's accomplishment and importance can be adequate, certainly, or even well informed, without taking the magnetic, meteoric personality into account. All these books contribute to our understanding of the personal phenomenon. Indeed—and this

is surely symptomatic – they are all more intimately concerned with the personality than with the music.

Edward Jablonski and Lawrence D. Stewart made a justly admired start in 1958 with a book appropriately titled The Gershwin Years, now reissued in a more handsome edition, the many excellent photos more sharply revealed, with some corrections, many inserts, and a discography and bibliographical survey. It is an affectionate and informative book, tracing the Gershwin story chronologically, keeping the figure of brother Ira in focus and bringing it up to date, and generally taking the brash but amiable Gershwin image pretty much at face value.

The Gershwins, by Robert Kimball and Alfred Simon, with an excellent chronological history by John S. Wilson, follows a similar course, but on a far grander scale. It is a "coffee-table book"-or is it a coffee table?-obviously modeled on the Robert Kimball-Brendan Gill Cole of a year ago, and superbly designed, as was Cole, by Bea Feitler. The photos – of persons, places. playbills, personal letters, sheet-music covers, manuscript sketches, etc. - are an instructive delight, although the captions are too small, sometimes hard to find, and occasionally not to be found at all.

HE continuity is skillfully and inconspicuously sustained. Most helpful, and most enjoyable, too, are the many personal recollections of Gershwin by those who knew him and worked with him. Appendices include a chronology of show songs and miscellaneous songs, an alphabetical listing of songs, a discography of original-cast recordings and studio recreations, a pianorollography (so help me!), and a bibliography.

Gershwin, His Life and Music, by Charles Schwartz, while covering the familiar chronology in even greater detail, and providing a useful listing of works and an exhaustive bibliography, is quite another matter, and it is not going to be relished by those emotionally or sentimentally attached to the Gershwin memory or the Gershwin legend.

Schwartz sees Gershwin as a songwriter counterpart of Al Jolson, as the New York Jewish Sammy-on-the-run and on the make, self-centered, insecure, insatiable in his thirst for recognition, acceptance, and approbation, a womanizer unable to establish a satisfactory emotional relationship with the women he may have loved. Nor is he more indulgent with Gershwin as composer, musician, or intellect. He sees the "serious" studies, the painting, and the intellectual pursuits as pretentious and superficial dabbling. He concentrates on the "serious" works rather than the songs, and he finds them wanting both intellectually and in terms of musical culture.

There is probably truth in what he has to say about the Gershwin psyche (the other books barely touch on the subject), and there is certainly truth in his observations of Gershwin as a "serious" composer. Alec Wilder, in *American Popular Songs*, is far better on Gershwin as a songwriter. Schwartz's book may contribute to a more sober, better balanced, more critical assessment than we have had heretofore. But it is marred by a recurrent undertone of dislike, even hostility, and its musical assessment, because of the slighting of the songs, is, I think, ill focused.

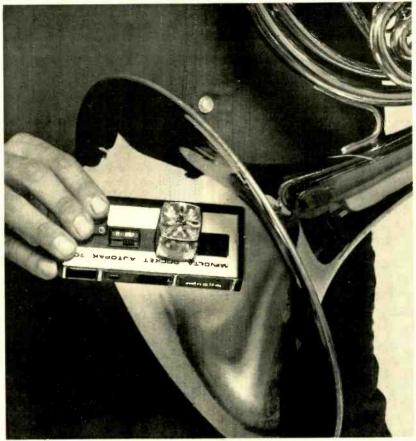
Schwartz himself provides the key both to his own failure as a critic and to Gershwin's personal tragedy by his persistent and exasperating use of the term "tunesmith." Anyone who can speak of the composer of Embraceable You. The Man I Love, and Fascinating Rhythm as a tunesmith should not, I submit, be writing a book about Gershwin.

JEONARD BERNSTEIN, in an introduction to Gershwin, His Life and Music, has been more perceptive. "Gershwin," he writes, "was, after all, a songwriter. . . . He came from the wrong side of the tracks, and grew up in the ambience of Tin Pan Alley, song-plugging, and musical near-illiteracy. His short life was one steady push to cross the tracks, both musically and socially." Bernstein is more perceptive, too, about Gershwin's "serious" works: "What's important is not what's wrong with Rhapsody, but what's right with it. And what's right is that each of these inefficiently connected episodes is in itself melodically inspired. harmonically truthful, rhythmically authentic."

Gershwin's tragedy, Bernstein concludes. "was not that he failed to cross the tracks, but rather that he did, and once there, in his new habitat, was deprived of the chance to plunge his roots firmly into the new soil." Could be. But I prefer to believe that Gershwin's tragedy was that the tracks were there to be crossed. Schwartz's use of "tunesmith" is a one-word sample of some of the snobbish attitudes that lay—and still lie—on the other side.

For a breath of fresh air, turn to the New York *Times' Gershwin Years in Song*, which gives us fifty-six of the songs with piano accompaniment and Gershwin's own piano transcriptions of some of them. It is splendidly printed, in a loose-leaf binding permitting the pages to lie flat, and gives the chord designations above the vocal staff.

Or take up, once again, Ira's Lyrics on Several Occasions, first published in 1959, and now issued in a Viking Compass paperback, and rejoice, as George did, in the brother who could come up with "If you're in a crisis/My advice is," or, as one may say of many a Gershwin song: "'S Wonderful, 'S Marvelous!"



Minolta helps the band play on.

Minolta puts over twenty years of little-camera making experience into every Pocket Autopak® 70. So you can depend on fine-camera performance whenever one of the boys hits high "C".

It's easy to take perfect slides or snapshots with a Minolta Pocket Autopak and the new 110-cartridge film, because the precision electronic shutter sets the camera automatically. Even flash photography is a snap, with a signal in the finder to tell you when you need a Magicube. For crisp detail in every picture, Minolta includes an optical-glass lens. And there's an exclusive built-in lens for dramatic close-ups and portraits.



Minolta Pocket Autopak 70. Fine pocket photography.

NEW PRODUCTS THE LATEST IN HIGH-FIDELITY EQUIPMENT

Rectilinear XIa Speaker System



 A NEW speaker system of moderate size and price has been introduced by the Rectilinear Research Corp. The system, designated the Model XIa, is a twoway design with a 31/2-inch cone tweeter and a 10-inch woofer in a ported enclosure using a tubular duct. The crossover network, which is a two-element inductance-capacitance configuration, acts at 1,000 Hz, with slopes that are said to approach 18 dB per octave because of the mechanical rolloff characteristics of the two drivers. A continuously variable control adjacent to the input binding posts adjusts the tweeter level to suit the

acoustics of the listening room. Frequency response is 45 to 20,000 Hz ± 4 dB; impedance is nominally 8 ohms, and does not fall below 7.5 ohms at any frequency. The minimum power requirements of the system are 10 watts per channel continuous, and power-handling capacity is 50 watts continuous. The Model XIa measures 23 x 12 x 10¹/₂ inches and weighs 31 pounds. The cabinet is finished in oiled walnut with brown grille cloth. Price: \$89. Fretwork grilles of simulated wood are available optionally at \$20 the pair.

Circle 115 on reader service card

Sennheiser HD-424 Stereo Headphones



• THE new Model HD-424 is Sennheiser's finest stereo headset, featuring openearpiece design with acoustically trans-

parent foam cushions that rest on the ears instead of cupping them. Each earpiece contains a 13/4-inch dynamic driver with a rated frequency response of 15 to 20,000 Hz. A padded headband of molded plastic links the earpieces, which are free to slide along the band as a fit adjustment for the individual wearer. Sensitivity is 17.7 microbars per volt; at a soundpressure level of 126 dB (1,000 Hz), distortion is less than 1 per cent. The

2,000-ohm impedance of the phones permits efficient operation through the lowlevel headphone jacks of tape decks and preamplifiers, as well as through the jacks of amplifiers and receivers. The weight of the Model HD-424 is 61/2 ounces. The attached connecting cable, terminating in a standard three-conductor phone plug, is 10 feet in length. Price:

Circle 116 on reader service card

Lafavette LT-D10 AM/Stereo FM Dolby Tuner



• In the expectation that the number of FM stations broadcasting B-Type Dolby-encoded signals will increase, Lafayette is offering the Model LT-D10, an AM/stereo FM tuner with Dolby decod-

ing circuitry and an output for a fourchannel FM adapter, when or if it becomes available. Basic specifications for the tuner include an IHF sensitivity of 1.65 microvolts, 1.5-dB capture ratio, 60-dB selectivity, 90-dB spurious-response rejection, and 75-dB image rejection. Harmonic distortion is 0.1 per cent for mono reception.

The front panel has a linearly calibrated blackout tuning dial, signal-strength and channel-center tuning meters, and a row of pushbuttons to activate such functions as FM interstation-noise muting, multiplex filter, mono/stereo mode, and Dolby. Another button dims the illumination of the dial scale. Front-panel phone jacks are provided for tape dubbing, and in the rear are outputs of fixed or adjustable level, an a.c. convenience outlet, and a switch to select either 75-microsecond (existing) or 25-microsecond (proposed) FM de-emphasis. There are built-in AM and FM antennas as well as teminals for external antennas. The LT-D10, complete with walnut-finish cabinet, measures approximately $15\frac{1}{2} \times 4\frac{1}{2} \times 12$ inches excluding knobs. Price: \$229.95.

Circle 117 on reader service card

Ferrograph Super Seven Stereo Tape Deck



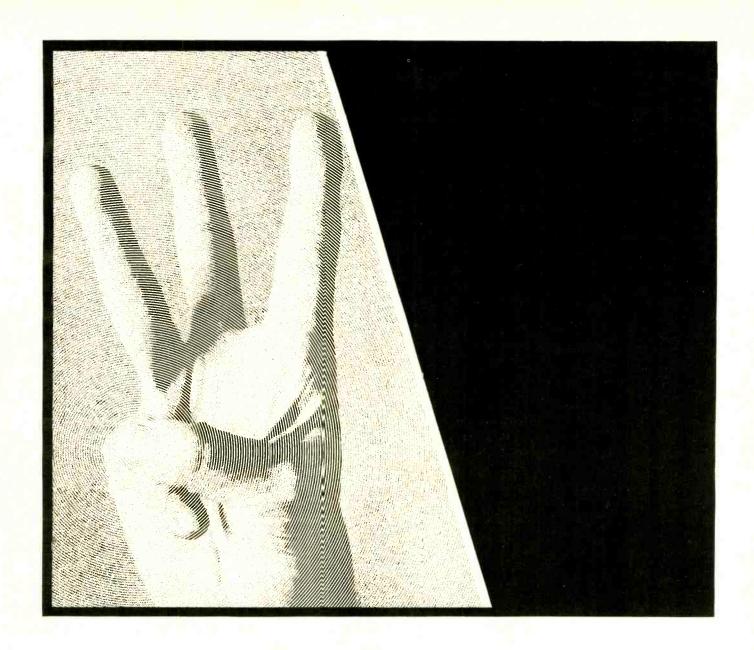
 ELPA MARKETING, distributors of Ferrograph tape recorders in the United States, has announced a new model, the Super Seven, available with tape speeds of $7\frac{1}{2}$, $3\frac{3}{4}$, and $1\frac{7}{8}$ ips or 15, $7\frac{1}{2}$, and 3³/₄ ips. Dolby B Type noise reduction is

also offered optionally. Reel sizes up to 10½ inches are accommodated. The deck is a three-head (erase, record, playback), three-motor unit with solenoid operation of the transport. It has a unique variable-speed control, operative in fast forward and rewind, that permits "rocking" the tape back and forth to facilitate locating a splice point. Another editing convenience is the deck's ability to be switched into the record mode - by means of the RECORD pushbutton and an interlock lever - at any time during operation, without the necessity of stopping the transport. Recording bias strength is fully adjustable (there are separate adjustments for each channel), and bias levels are read out on the recording-level

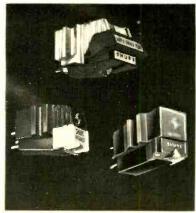
meters when the appropriate pushbutton is pressed. The owner's manual gives the correct bias meter readings for the more popular tape types. In addition, the machine has the more usual features such as sound-on-sound recording, microphone/line mixing, and switchable tape tension for different reel sizes. There is also a multiplex filter for use when taping stereo broadcasts.

Record-playback frequency response for the various speeds is 30 to 20,000 Hz ± 2 dB (15 ips), 30 to 17,000 Hz ± 2 dB $(7\frac{1}{2} \text{ ips})$, 40 to 14,000 Hz ± 3 dB $(3\frac{3}{4}$ ips), and 50 to 7,000 Hz ± 3 dB (1% ips). Wow and flutter are below 0.08 per cent at 15 and 71/2 ips, 0.15 per cent at 33/4

(Continued on page 20)



Best. Best. Best.



Permit us this momentary bit of self-indulgence, because our intentions are pure: to assist you in choosing the best phono cartridge for your hi-fi system, within the practical limitations of your audio budget. To begin, if you feel uncomfortable with anything less than state-of-the-art playback perfection, we heartily recommend the Shure V-15 Type III, a cartridge of such flawless performance it is the perfect companion to the finest turn-tables and tone arms available today — and those coming tomorrow. At a more moderate level of performance and price, we suggest the Shure M91ED, a superb performer second in trackability only to the Type III. Finally, for optimum performance under a budget austerity program, the yeoman Shure M44E is for you. All in all, these are three great ways to enjoy music with the kind of system you have decided is best for you.

Shure Brothers Inc. 222 Hartrey Ave., Evanston, III. 60204

In Canada: A. C. Simmonds & Sons Ltd.
CIRCLE NO. 46 ON READER SERVICE CARD



NEW PRODUCTS THE LATEST IN HIGH-FIDELITY EQUIPMENT

ips, and 0.2 per cent at 17/8 ips. The signal-to-noise ratio, unweighted and including hum, exceeds 55 dB for a recorded level that results in 2 per cent distortion on playback. The basic Ferrograph Super Seven is offered in quartertrack and half-track versions, both priced at \$950. There is no price increase for the 15-ips model, Dimensions, including the walnut case, are 19½ x 17 x 9 inches.

The unit pictured is a complete recorder version, containing a pair of builtin 7 x 4-inch elliptical speakers and a stereo amplifier rated at 10 watts continuous output with less than 0.25 per cent distortion. Price: \$1,000. Dolby noise reduction (not available with the halftrack model) consists of separate modules for recording and playback, and straight-through decoding of external Dolbyized sources is possible. The Dolby circuits add \$125 to the price.

Circle 118 on reader service card

Infinity 2000 AXT Speaker System



• The new Model 2000 AXT from Infinity Systems is the successor to the company's Model 2000 A. The new sys-

tem, said to be about 6 dB more efficient than the previous one, replaces the highfrequency electrostatic drivers used formerly with Infinity's unique wavetransmission-line tweeter. The tweeter, employing a steep-sided aluminum cone joined to a conventional voice-coil/ magnet assembly at its apex, is installed in the uppermost subsection of the enclosure, which is open on four sides and the top to take advantage of the tweeter's omnidirectional radiation pattern. The three-way system's other two driversa 41/2-inch cone mid-range and 12-inch woofer-face forward.

Frequency response of the 2000 AXT is 35 to 21,000 Hz \pm 3.5 dB, and crossovers between the drivers take place at frequencies of 500 and 5,000 Hz. Two continuously variable controls are provided for adjustment of the mid-range and tweeter levels. Nominal impedance is 8 ohms, and 25 watts per channel continuous into that impedance is the minimum recommended amplifier power. Power-handling capability is 200 watts program material. The 2000 AXT has an oiled walnut enclosure, with dimensions of 28 x 20 x 14 inches. A twopiece foam grille, held in place with Velcro fasteners, is removable. A low base for floor-standing installation is provided with the system. Price: \$299.

Circle 119 on reader service card

Marantz Model 4270 AM/FM Four-Channel Receiver



• The latest four-channel receivers from Marantz are the five models that form the "Stereo 2 + Quadradial 4" series, four of which have built-in Dolby noise-reduction circuitry for tape recording and playback and for processing Dolbyized FM broadcasts. Typical of these is the Model 4270, a unit rated at 25 watts per channel continuous into 8ohm loads across the full audio band, with less than 0.3 per cent harmonic and intermodulation distortion. In the twochannel mode, available power is 70 watts per channel continuous under the same conditions. Signal-to-noise ratios are 77 dB for high-level inputs and 60 dB for the phono inputs. FM specifications include: 1.9-microvolt IHF sensitivity (a 55-dB signal-to-noise ratio is achieved with an input of 5 microvolts); 1.5-dB capture ratio; 60-dB alternate-channel selectivity; 50-dB AM suppression; 70dB image rejection; 80-dB i.f. rejection; and 40-dB stereo separation at 1,000 Hz.

The very elaborate control panel has record and playback Dolby calibration

adjustments for two channels, a pushbutton that turns on an internal 400-Hz Dolby test-tone oscillator, and another that switches the signal-strength tuning meter to indicate Dolby levels. A rotary selector activates the Dolby circuits and sets them to decode tape or FM programs or to record Dolbyized signals on either of two stereo tape decks. (In all, a total of four stereo tape decks or two four-channel tape decks can be connected to the receiver and controlled through various tape-monitor switches and selectors.) Besides two tape positions, the input selector has positions for AM, FM, phono, and an external high-level source such as a CD-4 demodulator. The mode switch selects mono, twochannel stereo, discrete four-channel, or VARI-MATRIX – a built-in matrix decoder for programs encoded according to the RM or similar matrix parameters, and for deriving a four-channel effect from two-channel sources. This works in conjunction with a continuously variable DIMENSION control that varies the separation between certain speaker pairs for best effect. Three slider controls adjust left-to-right and front-to-rear balances. The rest of the controls—bass, treble, and mid-range (separate, concentrically mounted controls for front and rear channels), master volume, and tuning are conventional. A row of pushbuttons switches the high-cut filter, loudness compensation, FM interstation-noise

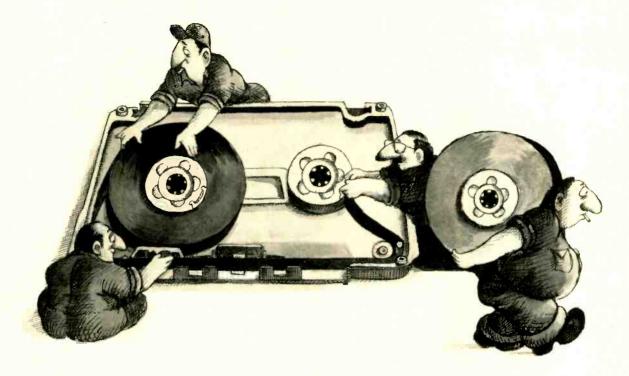
muting, power, and main and remote speakers (eight pairs total). Below these pushbuttons are a pair (front and rear channels) of stereo headphone jacks.

The rear panel holds the necessary input and output connectors, a small knob to switch the amplifier section from four- to two-channel operation, an FMmuting threshold adjustment, Dolby playback calibration controls for FM. and a switch that will convert the receiver's FM de-emphasis characteristic from 75 microseconds to the 25-microsecond standard being proposed by Dolby. There is also a connector for the Marantz RC-4 remote control-a small, hand-held unit with a fifteen-foot cable that incorporates adjustments for fourchannel balance, master volume, and loudness compensation. Underneath the Model 4270 is an insertion "pocket" into which can be plugged a Marantz fourchannel decoder module, which is then controlled by a special position on the front-panel mode selector. At present Marantz offers only an SQ decoding module with front-back logic; however, future modules are planned, as necessary, to keep up with new developments.

Dimensions of the Model 4270 are $16^{7/8} \times 5 \times 14^{1/4}$ inches. Weight is 49 pounds. Price: \$699.95. A walnut cabinet is extra at \$29.95, and the optional RC-4 costs \$39.95. The SQ decoder module, Model SQA-1, is \$49.95.

Circle 120 on reader service card

The Maxell Ultra Dynamic cassette. We've added a little more Ultra to the Dynamic.



We wanted to make some really big improvements in our cassette. But there just weren't any big improvements left to make. So we made a lot of little improvements.

More hertzes.

We reduced the size of the tiny PX gamma ferric oxide particles on the surface of our tape. The result is our <u>biggest</u> improvement. The Hz now go up to 22,000 Hz which means you get higher highs. And the dynamic range is wider so the distortion is lower.

Little pad finally gets grip on self.

Other cassettes keep their pressure pads in place with glue—or rather <u>don't</u> keep their pressure pads in place with glue. So we've designed a little metal frame for the pad and now the pad is held in a grip of steel. With the result that you don't need to worry about signal fluctuations or loss of response any more.

Three little arrows.

The first five seconds of our new cassette is a timing leader and we've marked the place where it starts with three little arrows. Which means the next time you record Beethoven's Fifth, you'll include Beethoven's opening da-da-DAAA.

Amazing new miracle ingredient fights dirt fast!!!

The new timing leader's also a head-cleaner and what's amazing, new and miraculous about it is that it doesn't rub as it scrubs as it cleans. So it keeps your tape heads clean without wearing them down.

Our screws aren't loose.

We started putting our screws into square holes. That way the plastic shavings from the threads get trapped in the corners of the holes and can't cause trouble jumping around in the works. And the square holes hold the screws much more tightly.

Our new long-playing cassette is shorter.

We also have a new shorter length. The Maxell UDC-46. Twenty-three minutes per side. Which very conveniently just happens to be the approximate playing time of your average long-playing record. (Our other UD cassettes are 60, 90 and 120 minutes.)

Altogether we've made five new improvements in our Ultra Dynamic cassettes.

Five ultra dynamic new improvements.



The answer to all your tape needs.

Maxell Corporation of America, 130 West Commercial Avenue, Moonachie, N.J. 07074

CIRCLE NO. 28 ON READER SERVICE CARD





A quarterly for the craft audio buff FUTURE FARE: A tonearm, preamp, a custom Dyna Stereo 70, Hiss filter, Synthesizer, Transmission Line Speakers, A variable inflection 3-way tone control-and much more.

PROJECTS PUBLISHED: a 9 Octave equalizer, Dyna PAT-4 update, power amps and preamps, a simple mixer, two 4-channel decoders and two encoders, 9 octave electrostatic speaker with a matching 900 W. Direct coupled tube amplifier. . . plus much more.

"Absolutely top quality...the only U.S. publication completely devoted to the

•			_	_	_	_	_	_	_	_	_	_	_	-	-
	For	a f	ree	p	ro	sp	ect	us	&	fi	ıll	$d\epsilon$	10	ils	9

Name	
Address	
City	State

ZIP. Quarterly: \$7 yr.; 3 years \$20. P.O. Box 30.

VIEWS AND COMMENT Technical Editor

- IF you have been following technical. developments in the cassette-recorder field, the introduction of yet another three-head tape deck might appear to you to be no big news. However, according to a late report from Japan, Hitachi is producing a cassette deck that has a single tape-cassette head that has separate record and playback gaps. The head is no larger than a conventional one, thus eliminating the major problem faced by designers of three-head decks: into which of the several available openings in the cassette itself do you put the head? There is only one opening that is backed up by a pressure pad, of course, and if the playback head is going to be able to read the high frequencies on the tape, it has to be in the closest possible contact with the oxide. Special tape-drive mechanisms have been used in a few other three-head machines in order to assure sufficient contact with the monitor head, but Hitachi's head simplifies everything-assuming it can deliver all the response required.
- THERE'S a new sonic product that, even if it isn't "hi-fi," certainly does have an extended high-frequency response. At the Tenth International Trade Fair held recently in Tokyo, Sanyo demonstrated an ultra-sonic bathing machine that "cleans the body electronically" with a sonically agitated cleansing solution like that used by jewelers and others to clean dusty diamonds, small electronic and mechanical parts, etc. I'm not so sure, however, that I would care to expose my tender bod to the 30,000 Hz or higher cavitating signal used in Sanyo's electronic scrubber. After all, who needs to be that clean?
- THE Shibata stylus was the first to be developed with a narrow edge designed specifically for the ultra-fine groove modulations of the CD-4 fourchannel disc. I suspect that we will shortly be seeing a host of similar, but not identical, stylus configurations hit the market, some with straightforward American names, others with exotic oriental ones. There doesn't appear to be any reason why the specific geometry of a given stylus, which is basically deter-

mined by the facet-grinding technique. should be sonically superior to any other. The care with which the stylus jewel is mounted on the shank, its shaping and polishing, and whether it is grain-oriented for longest life, however, continue to be as important as ever.

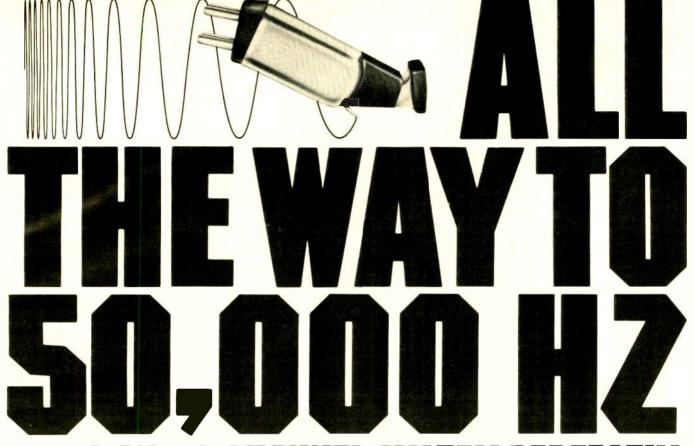
• A circuit design has appeared in some foreign and a few U.S-made TV sets that may have fascinating implications for high-power amplifier design. As is well known, the major contributor to the excessive weight, size, and cost of the 300watt-and-over superamps is the power supply, with its massive transformer and enormous filter capacitors. The new approach involves using a power-oscillator circuit connected directly to the a.c. line. The oscillator, in effect, converts the 60-Hz line frequency to 20,000 Hz or higher, and this is then fed to the power transformer-a small, doughnutshaped (toroidal) high-frequency unit that weighs ounces rather than pounds. Normal rectification of a.c. to d.c., plus filtering, is then applied. The high operating frequency also permits smaller filter capacitors to be used.

Unless this technique has disadvantages that aren't apparent at the moment, the weight and the price of the big power amps should come down substantially as soon as designers start using it over the next few years. Size is still determined to a large extent by the necessary finned heat sinks as well. However, Class-D output-stage operation (which treats an audio signal as a series of pulses) has been around for many years; it has very high efficiency and therefore low heat. If the labs can lick some of its technical problems, Class-D will get rid of the heat sinks, and then. . . . Would you like to see my new thousand-watt four-channel power amp? It's here in my pocket.

• THE Scott Foam Company is largely responsible for the great-looking multicolored foam facings on so many of the new speaker systems. In case you have been wondering, those heavy-looking grilles are absolutely transparent acoustically - more transparent, in fact, than some of the fabric grilles I've seen used. The foam can of course be manufactured with any amount of acoustic resistance desired, so it is no surprise that Scott is also in the sound-treatment business with a whole family of materials having various acoustic-absorption properties. Some are even efficient enough at the lower frequencies that they could help solve standing-wave problems in listening rooms. I suggested to the Scott people that they look into the possibility of using the foam grille, backed with acoustic absorbent, to produce good-looking hang-it-on-the-wall modules to deal with the kind of listening-room acoustical problems that trouble so many audiophiles. They're thinking about it.

•			_		_		_			-	
	For	a fi	ree	pro	spe	ctus	&	full	deta	ils:	

Swarthmore PA 19081



PLAYS ANY 4 CHANNEL SYSTEM PERFECTLY. PLAYS STEREO EVEN BETTER THAN BEFORE.

Empire's new wide response 4000D series cartridge features our exclusive ™'4 DIMENSIONAL'' diamond stylus tip.

This phenomenal new cartridge will track (stay in the groove) any record below 1 gram and trace (follow the wiggles) all the way to 50,000 Hz. Our exclusive nude ™'4 DIMENSIONAL''diamond tip has a .1 mil radius of engagement yet the very low force required for tracking prevents any discernible record wear.

Discrete 4 channel requires two full 20,000 Hz frequency spectrums. With a 50,000 Hz response you have plenty of extra sound to spare.

Even ordinary stereo is enhanced...true music reproduction depends upon wide frequency response. For example, a perfect square wave requires a harmonic span of 10 times the fundamental frequencies recorded. Obviously, to identify each instrument or sound nuance in a recording you must reproduce frequencies

well beyond the range of normal hearing. Listening to a cartridge with a response to 50,000 Hz is a truly unique experience. Close your eyes and you'll swear the sound is live. Open your eyes and you'll never be satisfied with anything else.

For your free "Empire Guide to Sound Design" write: EMPIRE SCIENTIFIC CORP., Garden City, N.Y. 11530.

Mfd. EPFE Secretary

TECHNICAL SPECIFICATIONS/EMPIRE'S NEW 4000 D CARTRIDGES

MODEL	LIST PRICE	FREQUENCY RESPONSE	OUTPUT VOLTAGE mv per channel	CHANNEL SEPARATION (left to right)	CHANNEL SEPARATION (front to back)		STYLUS TIP	STYLUS REPLACEMENT
Professional 4000 D/III	\$149.95	5-50,000 Hz	3.0	more than 35 dB	more than 25 dB	1/4 to 1-1/4	miniature nude diamond with 1 mil tracing radius ""4 DIMENSIONAL"	S 4000 O/III White
Deluxe 4000 O/II	\$124.95	5-45,000 Hz	3.0	more than 35 dB	more than 25 dB	3/4 to 1-1/2	miniature nude diamond with 1 mil tracing radius""4 DIMENSIONAL"	S 4000 D/II Yellow
Standard 4000 O/I	\$ 84.95	10-40,000 Hz	3.0	more than 35 dB	more than 25 dB	3/4 to 2	miniature diamond with .1 mil tracing radius**4 DIMENSIONAL*	S 4000 D/I Black

™-Trade Mark of the Empire Scientific Corporation

© 1973 Empire Scientific Corp.

free 1974 Olson CATALOG



SAVE on the best in HI-FI and TAPE RECORDING

The BEST of the NAME BRANDS • AR • AKAI • AUDIO-TECHNICA • CONCORD • DUAL • ELECTRO-VOICE • FISHER • GARRARD • KOSS • MIRACORD • PIONEER • SANYO • TELEDYNE • WOLLENSAK

A superstore of electronics at your fingertips! 244 colorful, *full-size* pages filled with interesting, accurate, HONEST descriptions of the newest and best audio products of the year, plus hundreds of parts, accessories and staple items. It's an "at home" department store you'll use all year to order exciting audio products by mail at the lowest prices around.



FREE 1974 Catalog Send coupon today

the VALUE leader since 1931

Olson	electronics	Dept.	FP
	orge St., Akro		

☐ Send	me	my	FREE	1974	Olson
Catalo	g		(Please	Print)	

Name	Apt	
Street		
		_ .

□ Send an	Olson Cat	talog to my friend

Name _	Apt.

City State Zin

AUDIO QUESTIONS and ANSVVERS By LARRY KLEIN Technical Editor



Old Discs, New Stylus

I was given a collection of old mono and stereo LP's by a friend. I've played a few of them and they are quite noisy, even after cleaning. My question is this: will the dirt in the grooves of these old records cause excessive wear of the elliptical stylus of my rather expensive cartridge?

VINCENT MANTERIA Bayside, N.Y.

A. Unless the noise produced by the debris in the grooves is bad enough to make the record unlistenable, stylus wear should not be excessive.

Speaker Switching

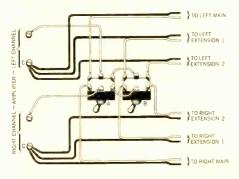
I have a high-power stereo system with a 300-watt-plus power amplifier. Since I would like to have speakers operating on my porch and in my living room and den, although not necessarily simultaneously, I asked a friend who is familiar with the technical end of hi-fi to design a switching system for me. He bought what he called a multipole selector switch and wired my three sets of speakers to it in such a way that only one pair could be used at a time since two pairs of the speakers had four-ohm impedances and he felt that my amplifier might have difficulty driving both sets at once. Everything worked fine for a while but then the switch became intermittent so that the speakers would not always play when they were selected. We changed the switch and again things worked fine for a while and then the same trouble occurred. He is at a loss to explain the difficulty, and, of course, so am I. Do you have any suggestions?

David Devlin Boston, Mass.

A Your problem, which sounds similar to one I ran into several years ago when trying to design a relay-operated A-B-C-D speaker-switching setup, comes about because the contacts of the switch used cannot handle the electrical currents involved. Consider that with 4-

ohm speakers being driven to, say, 150 watts on peaks (a not improbable figure), over 6 amperes of current are flowing through the switch contacts. A light-duty switch intended for input-selector use will simply not stand up under that kind of current load for long.

Although there are multipole rotary switches that will take heavy currents, they may be expensive and difficult to find. I would therefore suggest that you



use conventional double-pole, doublethrow "standard-duty" switches of at least a 10-amp rating. If wired as shown above, switch A will select either main or extension speakers, and switch B will select either pair of extensions.

Taping Old 78's

I have a very large collection of old 78-rpm jazz records that I would like to transfer to tape. I would appreciate suggestions as to the kind of tape machine I should use and any precautions that I should observe during the process.

George Peters Chicago, Ill.

Assuming that you own no tape equipment at present, your choice is between the open-reel and cassette formats. Although open-reel does have advantages in editing and (sometimes) fidelity, for your particular application cassettes would be your best bet. There should be no need for editing, and the fidelity of most cassette decks in

the \$250 range should be superior in terms of distortion, frequency response, and noise (particularly if the Dolby system is used) to that of your discs. And since your collection of 78's is extensive, the cassette's compactness is preferable.

I would suggest that you avoid the very thin tape (C-90 and C-120) cassettes, because they may suffer from print-through of the material from one layer to another during long-term storage. And, in addition, if you record too much material on a given cassette you may find the selections hard to catalog and relocate subsequently. Use C-60's (30 minutes per side) as your maximum length, and experiment with C-45's or C-30's to check out whether they might be even more suitable for your purposes.

I would not suggest that you try scratch filtering or any sort of equalization (except Dolbyization, of course) during the taping of the 78's, because once the discs are committed to tape in equalized form it may be difficult to restore the original balance for use with some future, more effective equalizer or noise eliminator. In other words, tape your discs pretty much as they are and then equalize or filter them as necessary during playback. However, if a few discs require special equalization for optimum results, then of course make the correction before feeding the signal to your tape machine to bring them in line with the other selections. An equalizer in the \$70-to-\$100 range, as sold by Metrotec and others, should work well in this application.

If, for some reason, you do want to use an open-reel machine rather than a cassette deck, many of the same precautions apply. Do not use a very thin or long-play tape and do not record at too high a level since both practices can increase print-through problems in longterm storage. Five-inch reels loaded with 1½-mil tape would probably serve best.

Tape Indexing

Wouldn't it be a good idea if the · tape-machine manufacturers set up their index counters so as to agree with each other? Prerecorded tapes with several selections could then be numerically indexed for each selection.

MELVIN CHEEKS New York, N.Y.

Yes, it is a good idea, but unfortu-· nately not one easily put into practice. The index counters in tape machines are separate modules usually driven by a small belt connected to some rotating element in the transport such as the take-up hub spindle. The rotational speed of the hub at any one moment depends on the amount of tape on it (rather than the speed of the tape passing the capstan). Hence the index counter runs faster at the beginning of a tape and slower at the end.

The new AR-7 will, quite simply, astound you. Never before has it been possible to get so much sound—and such accurate reproduction—from such a small speaker system

Although the AR-7 measures only 934" x 1534" x 64", and sells for \$65, professional audio critics and knowledgeable consumers have consistently compared it favorably with other speakers 4 times its

size and 10 times its price. The AR-7 was originally developed to fill the needs of 4-channel stereo where space is at a premium, but its high dispersion tweeter and new woofer-both with unusually high power

handling capacity-provide such wide, even frequency response that the AR-7 is an excellent choice for any high quality music system.

Acoustic Research, Inc., 10 American Drive, Norwood, Mass. 02062

CIRCLE NO. 2 ON READER SERVICE CARD



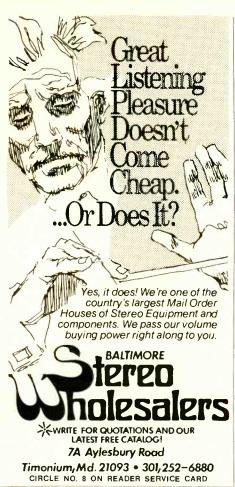
READ THE APRIL '73 STEREO REVIEW FOR DEFINITIVE CRITIQUE ON THE RA-1210

RA-1210

THE STEREO AMPLIFIER: RMS power, 60W/channel with both channels driven into an 8 ohm load. Two separate power supplies each with its own power transformer. Power Bandwidth of from 5-50KHz and a THD of below 0.3% from 20-20KHz. Add to this 2dB step controls, 3 stage differential pre-amplifier, adjustable input sensitivity/impedance on phono 2, plus tape monitoring and dubbing for two sets of tape recorders.



ROTEL of America, Inc., 2642 Central Ave., Yonkers, N.Y. 10710





State

1-202-635-4900

Zip.

SR-1

AUDIO BASICS By RALPH HODGES



GLOSSARY OF TECHNICAL TERMS-6

• Channel, in the strictest sense, denotes a signal path that is kept completely isolated from other, similar signal paths (channels) that are carrying different signals (or different aspects of the same signal). Conventional stereo is a two-channel medium: two separate signal paths extend all the way from the program source to the speaker systems. And the program source itself is in two channels—usually either two recorded tracks on a length of magnetic tape, or two separate "engraved" audio signals, each occupying its own record-groove wall.

Quadraphonic sound is an expanded medium employing four separate channels. However, of the two types of quadraphonic program material available ("discrete" and "matrix"), only discrete is a true four-channel source consisting of four separate magnetic-tape tracks or the equivalent. (Discrete systems are frequently designated "4-4-4," in a sort of engineering shorthand for the number of channels of (1) original sound, (2) recorded sound, and (3) reproduced sound.) Matrix sources (4-2-4 systems) more closely resemble two-channel recordings; the "2" indicates that the original four channels have been mixed together into two for recording purposes, and are reconstituted as four-with somewhat imperfect separation at present – by the playback equipment.

• Chromium dioxide (CrO₂) is a magnetic material developed by du Pont that is being used—under the trade name "Crolyn" and others—as the active coating ingredient on some audio cassette tapes and video tapes instead of the various iron oxides employed heretofore. Chromium dioxide has higher magnetic coercivity than iron oxide—that is, it is more resistant to changes in its magnetic state. Therefore, although it requires a stronger signal to record on chromium-dioxide tape, once recorded, the tape holds onto short recorded wavelengths (high frequencies) better. This is an im-

portant advantage in cassette applications, since the very slow tape speed (17/8 ips) results in very short wavelengths for the recorded signal.

- Coaxial cable is a term that could be used to describe any type of flexible electrical cable composed of an inner conductor surrounded by another conductor—such as a metallic braid—insulated from it. An outer layer of plastic insulation frequently covers and protects the whole assembly. Thus, viewed in cross section, all the elements in the cable share a common center or axis (coaxial). In current usage "coaxial" refers specifically to cable intended to carry radio-frequency signals—for example, the 75-ohm coaxial lead-in from a roof FM antenna.
- Compact, in audio terminology, describes a "semi-component" system usually consisting of a receiver or amplifier (sometimes incorporating a cassette or eight-track tape recorder or player) with an automatic turntable mounted atop its cabinet. A pair—or sometimes a quartet-of outboard speakers completes the ensemble. As a rule, the system is ready to play as soon as it is unpacked, connected to its speakers, and plugged in. Compacts range in price up to about \$450. In designing a compact, many manufacturers practice such economies as adjusting the amplifier's frequency response to enhance the performance of the low-cost speakers, and opting for the minimum performance standards that will result in the least audible degradation of the sound. They also save on cabinet costs. For these reasons, many-but not all-compacts provide excellent sonic value for the money. However, replacing any individual component in a compact system with a better unit is frequently problematic, if not impossible. And when repairs are necessary on a particular component (the turntable, for example), the whole system, except speakers, must be returned.

Name

City

Address



My wife threatened to leave me until I bought a Marantz.

Whenever I played my stereo loud my wife made plans to move to her mother's. Then a Marantz dealer wised me up. It's not playing your stereo loud that's bugging her, he said. It's the distortion that's driving her cuckoo. Get a Marantz.

Marantz stereo is virtually distortion free. And Marantz measures distortion at continuous full power throughout the whole listening range, so it won't bother her. No matter how loud I play it.

Not only that, Marantz will play any type of 4-channel on the market today. And it's built so you can snap in any future 4-channel matrix development. Present and future requirements for stereo or 4-channel are all set.

And Marantz' Dual Power gives me the power of four discrete amplifiers with just two speakers. More than twice the power for super stereo. When I have two more speakers for full 4-channel, I can simply flip a switch. No obsolescence worries.

The Marantz Model 4140 Control Amplifier at \$549.95 delivers 70 watts power with only 0.3% distortion. It's the heart

of my Marantz component system. To complete the system I got a Marantz Model 115B AM/FM tuner for \$279.95. Nice. Nicer still is seeing the wife all smiles listening to Stravinsky's Firebird, up loud, pouring out of the beautiful Marantz Imperial speakers.

See your Marantz dealer. He's got a full line of Marantz components from \$149.95, receivers from \$199.95, speaker systems from \$59.00 all designed to suit your needs and your budget. Hey, is the Marantz community property?



We sound better.

\$1973 Marantz Co., Inc., a subsidiary of Superscope Inc., P.O. Box 998. Sun Valley, Calif. 91352. In Europe: Superscope Europe, S.A. Brussels, Belgium, Available in Canada. Prices and models subject to change without notice. Consult the Yellow Pages for your nearest Marantz dealer. Send for free catalog.

CIRCLE NO. 43 ON READER SERVICE CARD

the loudspeaker of the future

ESS Heil air-motion transformer

WITHOUT CONES, DOMES, SURROUNDS, **VOICE COILS, BENDING PAPER, RATTLING** MYLAR, RESONANCE, MASS, AND COLORATION THE ESS HEIL AIR-MOTION TRANSFORMER REPRODUCES SOUND SO CLEAN AND CLEAR TECHNICAL ARGUMENTS AREN'T NECESSARY.

BUT IF YOU'RE INTERESTED... HERE ARE SOME HARD FACTS:

Why do ESS Heil air-motion transformer loudspeakers sound so clean and discriminating? Because the Heil diaphragm accelerates rapidly enough to reproduce the initial transient attack of high frequencies where your ear is most sensitive. In fact it's the first milliseconds of reception that your ear recognizes and analyzes. If the information in this instant of time is compromised, nothing heard later will set it right.

The transient ability of the ESS Heil air-motion transformer is unmatched and superior even to electrostatics which had been considered the ultimate in this characteristic. How is this possible? The .5 mil graphite/mylar diaphragm of an electrostatic is demonstratably lighter than the .7 mil aluminum/polyethylene Heil diaphragm. The truth is "effective mass", rather than unit area mass, is the important factor. "Effective mass" of any diaphragm is derived directly from energy equations and reflects the amount of kinetic energy required to move a diaphragm to any given output into the air which is the complete parameter for transient ability. Just as some cars accelerate faster than others while getting better mileage, some speakers accelerate air faster than others while others while getting better mileage, some speakers accelerate air faster than others while using less energy because of a superior ability to get the energy into the air.

The equation for kinetic energy is MV^2 (mass of the diaphragm times velocity squared). While it is true that the Heil diaphragm is about 15 times as heavy per unit area as an electrostatic diaphragm, the transformational principle underlying the Heil patent requires the diaphragm to move only 1/5th as rapidly as an electrostatic to achieve an equivalent air speed. Consequently, since velocity is squared, only 1/25th the energy is required to move an equivalent mass of Heil diaphragm to the same instantaneous sound pressure as an electrostatic diaphragm. When you then measure the energy required to achieve a given peak output from the ESS Heil air-motion transformer you will find it is approximately 3/5ths that needed for an electrostatic driver. And it achieves all this without introducing the distortion created by the audio transformer in an electrostatic.

Why can you hear such a wealth of clean, pure detail from the ESS amt 1? Simple laws of physics. A higher percentage of the energy going into the Heil air-motion transformer speeds more rapidly into the air than with any other device.

The ESS Heil air-motion transformer carries a lifetime warranty and is "state-of-the-art" for today and for the future. Hear this new measure of sound quality at your franchised ESS dealer listed at right.



EXX. inc. sacramento, california

CIRCLE NO. 13 ON READER SERVICE CARD

ESS dealers for southern california

AMETRON-AMERICAN ELECTRONICS SUPPLY hollywood, california
AMETRON-AMERICAN ELECTRONICS SUPPLY hollywood, california
BEVERLY ELECTRONICS is angeles, orange, california
HI FI NATIC guiter only, california
HI FI NATIC guiter only orange on the california
HI FI NATIC guiter on the california
HI FI NATIC guiter on the california
SICOTT AUDIO CORP I non pasech, california
SICOTT AUDIO CORP I non pasech, california
FI FIRE OMATE TRANSITION OF THE CALIFORNIA
MINISTRATION OF THE CALIFORNIA OF THE CALIFORNIA
MINISTRATION OF THE C STUART S AUDIO oran, utah

ESS dealers for the midres

ESS dealers for the midres

ESS dealers for the midres

ALAN XUDIO COMPONENT (M.C. dealboom, michigan

ALAN XUDIO COMPONENT (M.C. dealboom, michigan

ALAN XUDIO CART, TIO, AXVD, cicveland, ohio

ALDIO CART, TIO, AXVD, cicveland, ohio

AUDIO CART, AXVD, ohio

AUDIO CART, TIO, AXVD, cicveland, ohio

AUDIO CART, AXVD, ohio

AUDIO CART, TIO, AXVD, cicveland, ohio

AUDIO CART, AXVD, ohio

AUDIO CART, TIO, ohio

CARLIN, AUDIO Caylon, ohio

CART, AVD, ohio

CART, ohio

C ESS products distributed in australia, canada, france, hong kong jemsica japan scandinavia singapore spain talwan west germani



Sony steadfastly refuses to let Brünnhilde overpower Mimi.

Music comes in big, loud, powerful varieties and in small, weak, delicate types. So, as it happens, do FM stations. If you have your heart set on listening to Mimi on a weak station, while some powerful, nearby station on the dial is thundering out Wagner, relax!

Sony receivers are dedicated to the proposition that the little stations of the world deserve their fair share of the MHz. And Sony is possessed of a rare talent for bringing in the weak sister stations.

To bring in the weakest of stations without intrusion by stronger ones, Sony's FM front end includes newly developed junction FETs in its mixer and RF stages. The IF section has permanently aligned, solid-state filters and a high gain IC limiter for excellent selectivity and superb capture ratios.

And Sony receivers deliver clean, distortion-free power from low, low bass (where you need it) right through the highest frequencies. (We rate amplifier power in terms of "continuous power output per channel with both channels driving 8-ohm loads within the entire audio spectrum"). For example, from 20Hz to 20kHz for the 7065, 7055, 6046A and 6036A receivers. Direct coupling means no output coupling capacitors to get between you and the music.

Sony receivers satisfy a wide variety of listening needs. Our STR-7065 (60+60W RMS from 20Hz to 20kHz with less than 0.2% distortion) plucks stations from even the most crowded dials with its excellent sensitivity and remarkable 1 dB capture ratio! You can click in your choice of three speaker pairs, monitor two tape recorders, dub

directly and mix one or two stereo microphones. Function indicator lights and a preamp-out/amp-in connection are welcome conveniences. \$499.50.*

The 7055 has all the features of the 7065 except mic mixing, function lights and signal strength meter. A bit less power, (35+35watts 20Hz to 20kHz with less than 0.2% distortion), and an exceptional tuner section, \$399.50.*

Our new STR-6046A represents a new standard in its power output and price category. Output is 20+20W RMS (20Hz to. 20kHz) with THD less than 0.8%. A tuner section with 2.2 µV IHF sensitivity, and 1.5 dB capture ratio! Features include mic input and line mixing facilities, tape monitoring, function indicator lights and choice of two speaker pairs. \$249.50.*

Our under \$200, STR-6036A is conservatively rated at 15 +15W RMS (20Hz to 20kHz). It has all the facilities of the 6046A except the mic mixing control and function lights. A remarkable 1.5 dB capture ratio is a clue to the tuner's impressive performance, \$199.50.*

An all-arcund, 4-channel performer, the SQR-6650-SQ, the other matrix systems and discrete (with quad tape deck). It features Double-Stacked Differential circuitry for extra power in stereo. \$329.50.*

The only thing overpowering about Sony receivers is the value they offer. Hear them at your Sony dealer. Prices include walnut finish cabinets. Sony Corporation of America, 9 West 57th St. New York, New York 10019.

* Suggested retail



CIRCLE NO. 47 ON READER SERVICE CARD

People who are really serious about their records are the best ones to ask about turntables.



Most people who decide they want components turn to a friend who knows something about high fidelity equipment. If the friend is a reader of this magazine, that's good. And if the friend happens to be someone who reviews recordings that's even better.

Record reviewers must select their equipment with great care, since they must listen with great care. To such things as the interpretation of the artist. To the recording and microphone techniques. And to the quality of the record surface itself.

All this is why the professional listeners select their turntables so carefully.



The tonearms of the Dual 1218 and 1229 are mounted in gyroscopic gimbols, the best known scientific means for balancing a precision instrument that must remain balanced in all planes of motion.

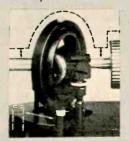
What most serious listeners know.

Professional listeners know that what they hear (or don't hear) often depends on the turntable.

After all, the turntable is the one component that actually handles records, spinning them on a platter and tracking their impressionable grooves with the unyielding hardness of a diamond. And the professional realizes that much depends on how well all this is done.

Which is why so many record reviewers listen to their records on a Dual. And why the readers of the leading music magazines buy more Duals than any other quality turntable.

They know that a record on a Dual will rotate at precisely the right speed to give precisely the right pitch. (If a record happens to be off pitch a Dual can compensate for it.)



Unlike conventional tonearms, the 1218 and 1229 track records at the original cutting angle. The 1229 tonearm parallels single records; moves up to parallel, changer stack. In the 1218, a similar adjustment is provided in the cartridge housing.

They know that a Dual tonearm will let the most sensitive stylus track the wildest curves ever impressed on a record groove, and not leave a trace of its passage.



In all Dual models, so lus pressure is applied around the pivot, maintaining perfect dynamic balance of the tonearm.

And they know that a Dual will perform smoothly, quietly and reliably year after year after year. Despite all the precision built into a Dual, they know

it's one turntable that doesn't have to be handled with undue concern. (Even if the tonearm is locked when play is started, or if the tonearm is restrained in mid-air while cycling no damage will result.)

If you'd like to know more.

A few examples of Dual precision engineering are shown in the illustrations. But if you would like to know what several independent test labs say about Dual we'll send you complete reprints of their reports. Plus a reprint of an article from a leading music magazine that tells you what to look for in record playing equipment.



For perfect tracking balance in each wall of the stereo groove, separate anti-skating calibrations for conical and elliptical styli are provided on all Duals.

Better yet, just visit your franchised United Audio dealer and ask for a démonstration.

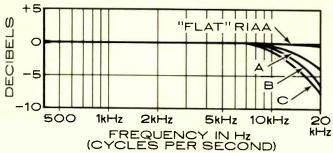
Dual turntables may seem expensive at first, but not when you consider your present and future investment in records. And now that you know what the professional listeners know, doesn't it make sense to own what they own?



United Audio Products, Inc., 120 So. Columbus Ave., Mt. Vernon, N.Y. 10553

Exclusive U.S. Distribution Agency for Dual.

The RIAA curve shows a preamplifier's essentially ideal response to an equalized electrical input. A, B, and C show the effects of three different cartridges on response.



speaker response reinforces the effect. The blame is often placed on the cartridge, since a change to another model, which might even be older or less expensive, may seem to cure the problem. Actually, it is an interactive effect of the amplifier and the cartridge; switching or redesigning either component could reduce or eliminate it.

For the past year, we have measured the phono frequency response of every amplifier and receiver tested at Hirsch-Houck Laboratories by sending the test signal through a cartridge body to simulate some of the conditions of actual use (this in addition to our usual straightforward measurement of RIAA equalization). We use three popular makes of cartridge that span a wide range of coil inductances. In most cases, the response up to about 10 kHz is affected by less than 1 dB with any cartridge-preamplifier combination. Typically, at 15 kHz cartridge "A" (which has the lowest inductance) shows a drop of 2 dB, while cartridges "B" and "C" are down about 4 dB. At 20 kHz, the effect has increased

to 4 and 8 dB, respectively. The figure shows a typical set of response curves for a good receiver with the three cartridges, as well as a direct curve to show the response of the preamplifier's phono circuits with the type of test setup usually used for such measurements. Note that these curves do not necessarily show the frequency response the cartridges will exhibit when playing a record, since other factors such as connecting cables and the cartridges' mechanical characteristics have not been taken into account. However, they do represent the behavior of the cartridges with most preamplifiers. For better or worse, we consider this behavior "normal," and in our tests of cartridges and preamplifiers we do not make any special mention of it unless there is a significant departure from the norm.

With a couple of preamplifiers, the order of the curves has been reversed, with cartridge "C" showing the least roll-off and cartridge "A" the most. To further confuse matters, on one preamplifier the effect was totally opposite,

with the output of cartridge "A" actually increasing in the 10,000- to 20,000-Hz range by 1 to 2 dB, while the output of the others dropped more than usual.

It is possible to build an amplifier whose frequency response is unaffected by a cartridge's electrical characteristics, but apparently only at some cost in noise level, price, or both. It is also possible to make phono cartridges with lower coil inductances, which would be affected little or not at all by circuit capacitance and would have no effect on the amplifier response. But this would tend to reduce the cartridge's output voltage. Frankly, at this time, I do not know the answer to the problem, or even if one is really necessary! In any case, the "blame" cannot be assigned exclusively either to the amplifier or the cartridge designers.

It seems to me that this effect can explain why one audiophile maintains that cartridge "X" has superior high-end response and definition compared with cartridge "Y," while another holds the opposite opinion. Both could be right when using their respective preamplifiers. By the same token, switching the output of a given cartridge between two fine amplifiers might seem to "prove" that one amplifier was superior to the other in "transient" response or high-frequency response. However, with a different cartridge the results could be inconclusive or directly opposed. I suppose that the moral to be drawn from this is that when an "unexplainable" phenomenon is observed, we should be careful where we assign the blame - or praise - for it.

EQUIPMENT TEST REPORTS

By Hirsch-Houck Laboratories

EPI Microtower MT2 Speaker System



• THE EPI Microtower MT2 is a scaled-down version of the company's larger speaker systems of the "tower" type, and it incorporates the design

changes needed to make most effective use of its small drivers. It is a column of square cross-section, $8^{1/2}$ inches on a side, and stands $33^{1/2}$ inches high. Near the top of the column, on opposite sides, are two 4-inch cone woofers, and on each of the other two sides (at the same height) is one of the 1-inch concave-dome tweeters used in most of the EPI systems.

The backs of the woofers work into an air column, which EPI describes as using the organ-pipe principle. Damping is supplied by internal glass-fiber packing, and the lowest audio frequencies are radiated from a 1-inch-wide slot extending around the base of the column. The crossover to the tweeters is at 3,000 Hz. There are no controls or adjustments.

The Microtower MT2 is designed to be free-standing, and it radiates more or

less omnidirectionally. The manufacturer recommends that one of the two tweeters face the listening area, with the two woofers radiating to the sides. The useful lower frequency limit is stated as 40 Hz, and the system is claimed to have a useful response to 18,000 Hz, with very wide dispersion up to about 13,000 Hz. The EPI Microtower MT2, which is finished in walnut, is priced at \$120.

• Laboratory Measurements. In our live-room measurements, which are made in the reverberant field of a speaker and correlate roughly with its total energy output, the Microtower MT2 proved to be a smooth and wide-range reproducer. We made separate near-field measurements of the woofer and port

(Continued on page 38)

Incomparable performance

"...the most powerful stereo receiver in its price class by a considerable margin...Our test measurements clearly showed that the advertised specifications for the Pilot 254 are not only honest, but quite conservative."

Stereo Review, September 1973



Unrivaled flexibility

".. this is a very solidly designed receiver and one that - because of its extra phono, tape, and aux inputs - has the extra measure of hookup flexibility that is fast becoming a necessity now that system owners are thinking in terms of more than one tape format, the possibility of quadriphonic conversion, and similarly demanding uses."

High Fidelity, November 1973

The Pilot 254 Stereo Receiver

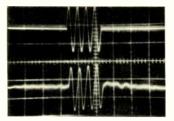
For the complete text of these reports and additional information write: Pilot, 66 Field Point Road, Greenwich, Conn. 06830.

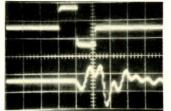
JANUARY 1974

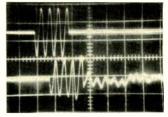
CIRCLE NO. 29 ON READER SERVICE CARD

performance is more than great specs

Typical examples of the MT2's excellent tone-burst response are shown at near and far right. The center photo shows the tweeter's response to a 5,000-Hz square wave. In all photos the electrical input appears above, the speaker's output below.







radiation, combining them, with appropriate allowance being made for their different characteristics, to obtain the low-frequency curve, which was then combined with the middle- and high-frequency curve to form a composite frequency-response curve.

From about 70 to above 1,000 Hz, the output was uniform within ± 1.5 dB. The low-frequency output rolled off smoothly at about 8 dB per octave, with negligible resonant rise. There was a slight dip of about 4 dB centered at 1,500 Hz. above which the output rose smoothly, with no irregularities exceeding 1 dB overall, up to beyond 15,000 Hz, where the level was about 6 dB higher than the mid-range average. The overall response varied only ± 6.5 dB from 40 to 20,000 Hz, which is very good performance for any speaker, and especially one of this size and price. The bass-distortion characteristics, measured at a woofer cone, reflected the small woofer area, increasing from 2 per cent at 70 Hz to 5 per cent at 47 Hz and 6½ per cent at 40 Hz with a 1-watt drive level. Since, in normal use, both the port and the second woofer will contribute to the low frequencies, the actual low-frequency/distortion performance is better than the measurements seem to indicate. However, when we tried to maintain a constant 90-dB sound-pressure level (SPL) at a distance of 1 meter from the speaker, the distortion began to increase very rapidly below 80 Hz, reaching 5 per cent at 72 Hz and 10 per cent at 70 Hz.

The system impedance was between 8 and 20 ohms from 20 to 3,000 Hz, falling to a minimum of about 4 ohms between 7,000 and 20,000 Hz. The efficiency, as would be expected for a ported system, was somewhat higher than that of comparably priced acoustic-suspension systems, with about 0.5 watt needed to produce a 90-dB mid-range SPL at a 1-meter distance. The transient response of the Microtower MT2 was excellent. There was virtually no start-up delay, overshoot, or ringing on tone bursts. The tweeters were even capable of reproducing a 5,000-Hz square wave in recognizable form.

• Comment. With one of the tweeters facing forward, we found the Microtower to be somewhat bright in our rather hard-surfaced room, and turning the system 90 degrees to face a woofer forward made a great improvement.

The results of the simulated live-vs.-recorded test were consistent with our general listening impressions and test data. With a woofer facing us, the Microtower's high-frequency reproduction was about as exact in this test as we have ever heard, allowing for the differences in dispersion characteristics between it and the original sound source. A very slight "boxy" quality could be heard in the mid-range during the testing, although it was not audible in ordinary listening. Applying a 4-dB boost in the 1,500-Hz region with an equalizer verified our suspicion that this was the result

of the response dip at that frequency. With the slight mid-range boost applied, the accuracy rating of the speaker was advanced from an A- to a solid A. As we have pointed out on numerous occasions, the live-vs.-recorded test excludes frequencies below 200 Hz. The EPI Microtower MT2 had a very solid clean bass at normal (for us) listening levels. with no trace of the heaviness or boomy quality characteristic of so many other speakers. Needless to say, a speaker such as this should not be asked to compete in respect to volume with larger systems, but it can deliver all that is required for any normal-size room.

We found the Microtower MT2 to be one of the more listenable speakers in its price bracket, with no coloration or special tonal characteristic other than its very potent high end. Anyone who finds the highs particularly "hot" in comparison with those of some other speakers should keep in mind that far too many speaker systems are *lacking* in extreme highs, whereas this one, in actual sideby-side comparison, is able to match the high-frequency sound quality of a widerange music source. In addition, this is certainly the least expensive quality 'omni" speaker system on the market, with all the intrinsic (and, in our view, desirable) sound properties of that category of speaker, and it occupies only 72 square inches of floor space. All in all, it offers an impressive amount of performance in a small package.

Circle 105 on reader service card

Nikko STA-7070 Stereo Receiver



• THE Nikko STA-7070 AM/stereo FM receiver is our first experience with the Nikko brand name. The performance specifications of the Nikko STA-7070 are complete and conservatively stated, and the receiver has all the features we have come to expect in units at its price,

including front-panel switching for two sets of speakers, step-type bass and treble tone controls, concentric volume and balance controls (the balance control is detented at its center position), and an input selector for AM, FM, two magnetic phono cartridges, and a high-level auxiliary (AUX) input. In the rear, there are two sets of AUX input connectors, differing in sensitivity by 6 dB, to accommodate sources having different output levels. Only one set of connectors can be used at a time.

Lever switches control the high- and low-cut filters, loudness compensation, stereo/mono mode, and FM muting. Unusual for a receiver at this price level are the STA-7070's elaborate tape-monitoring facilities. There are inputs and outputs for two three-head tape decks, each with its own monitor switch. When the input selector is set to DUBBING, the

(Continued on page 40)

ONKYO®

is audio with an important difference.



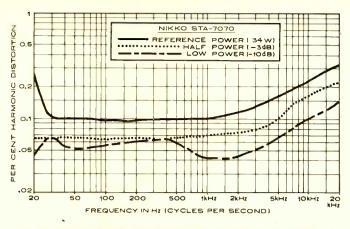
- Better Transient Response
 - Fine Capture Ratio
- Large Phono Overload Capacity

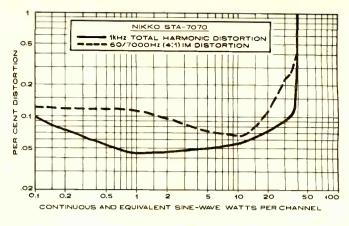
The fact is ... Onkyo delivers demonstrably better performance with power to spare! The excellent Transient Response assures crystal-clear reproduction of complex music signals. Our fine Capture Ratio means FM reception at its best, free from noise, drift or interference. The larger Phono Overload Capacity insures distortion-free sound from today's dynamically recorded discs, with most any cartridge. Add to this, exceptional

Sensitivity, negligible Total Harmonic Distortion and many more important features overlooked by others. You'll see why our receivers, amplifiers, tuners, speaker systems and components provide such strikingly pure sound quality—that always exceeds printed specifications. And, the craftsmanship is second-to-none! Listen to the important difference. Onkyo . . . Artistry in Sound.



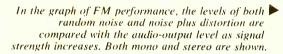
Onkyo Sales Section / Mitsubishi International Corp. 25-19 43rd Avenue, Long Island City, N.Y. 11101 / (212) 729-2323

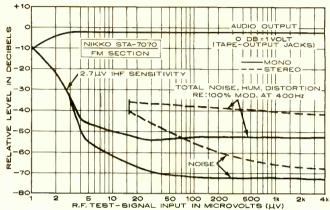






The well-organized rear panel of the Nikko STA-7070 is conventional except for the switch (instead of the usual jumpers) that connects and disconnects the preamplifier outputs and main amplifier inputs, and the three "reset" buttons for the protective circuit breakers.





tape-monitor switches permit the outputs of either recorder to be dubbed on to the other, while the program is simultaneously monitored. Alternatively, one set of tape connections can be used for an accessory device such as an equalizer, while the normal control functions of the other set of connections are retained.

The rear panel of the Nikko STA-7070, in addition to having all the usual inputs and outputs (including both DIN and phono jacks for both tape decks), has insulated spring connectors for the speaker and antenna connections, separate preamplifier outputs/power-amplifier inputs with a switch to join them for normal operation, and a 4 CH COMPOSITE FM output for use with a possible future discrete four-channel FM decoder.

Instead of the usual fuses, the STA-7070 is protected by three pushbutton-reset circuit breakers—one for the power line and one for each speaker out-put—so that a component failure in one amplifier section (or a shorted speaker line) will trip the associated breaker. A red button pops out at this time, and pushing it in restores normal service, assuming that the fault has been corrected. There are one switched and two unswitched a.c. outlets.

The front panel of the Nikko STA-7070 is attractively finished in pale satin gold, with matching knobs and a dial scale illuminated in blue. A STEREO light on the dial indicates reception of stereo FM transmission, and there is a large illuminated tuning meter of the relative-signal-strength type. There is a stereo

headphone jack and a pushbutton power switch on the front panel. With a walnut wood cabinet, the Nikko STA-7070 is priced at \$319.95.

• Laboratory Measurements, With a 1,000-Hz test-signal input, the audio amplifier outputs clipped at 36.2 watts per channel (8 ohms), 46.5 watts (4 ohms), and 24.3 watts (16 ohms), both channels driven. Through the AUX input, either 88 or 176 millivolts were required for a 10-watt output (depending on the input sensitivity chosen), with a very good 79-dB signal-to-noise ratio (S/N). The phono inputs required 1.1 millivolts for a 10-watt output, with an equally impressive S/N measurement of 76.5 dB. Phono-input overload occurred at a very safe 78-millivolt input.

Harmonic distortion with a 1,000-Hz test signal was typically about 0.05 per cent at any listenable power output, and remained under 0.1 per cent from our lower test limit of 0.1 watt to about 32 watts. The intermodulation (IM) distortion was about 0.1 per cent from 30 milliwatts to 20 watts output, increasing to only 0.27 per cent at the rated 34 watts per channel. The STA-7070 had better than average power-handling ability at the frequency extremes. At rated power, the harmonic distortion was 0.1 per cent from 30 to above 1,000 Hz, increasing to 0.32 per cent at 20,000 Hz. At half power and one-tenth power, distortion was less than 0.1 per cent up to 5,000 or 10,000 Hz, under 0.2 per cent over almost the full 20- to 20,000-Hz range.

The loudness compensation boosted both low and high frequencies moderately. The filter slopes were a gradual 6 dB per octave, with the -3-dB frequencies being 200 and 3,700 Hz. The bass tone controls had an overall range of ±18 dB, typical of many tone-control circuits. The treble control range was ±8 dB at 20,000 Hz, and its action became effective above 5,000 Hz. The concave shape of the treble tone-control response curve makes it particularly suitable for equalizing room or speaker characteristics, and its range is more than adequate for that purpose.

The RIAA equalization was flat through the middle and high frequencies, falling off slightly at lower frequencies. Nevertheless, it was a good ±2 dB from 40 to 20,000 Hz, and was down 7 dB from its mid-range level at 20 Hz. The phono equalization, measured with actual cartridges in the circuit, was affected at a lower frequency (down 1 dB at 6,000 Hz) than is the case with most amplifiers, but the overall loss of 2 to 4 dB at 15,000 Hz and 4 to 8 dB at 20,000 Hz was typical of the majority of amplifiers we have tested in this manner (see this month's Technical Talk column).

The FM tuner had an 1HF sensitivity of 2.7 microvolts, reaching a 50-dB S/N as early as 4.2 microvolts. The ultimate quieting (mono) was a very good 71 dB, with residual distortion of about 0.27 per cent. The automatic stereo-switching threshold was at 16 microvolts, and the ultimate quieting in stereo was 66 dB.

(Continued on page 42)

Heathkit AR-2020 4-Channel AM-FM Receiver



budget. The new Heathkit AR-2020 4-Channel AM-FM Receiver was planned from the start to give more 4-channel performance for your dollar than you can get anywhere else. And the kit-form components go together so easily you'll wonder why you ever considered costly ready-made gear.

The conservatively-rated four-section amplifier delivers a clean 25 watts The conservatively-rated four-section amplifier delivers a clean 25 watts IHF, 15 watts continuous, per channel into 8 ohms. The AR-2020 is seigned for maximum versatility with individual level controls for precise adjustment of each channel, a master gain control, and built-in SQ circuitry so you can reproduce matrixed 4-channel material as well as discrete 4-channel, stereo or even mono through four separate amplifier and the versatile rear panel phone socket arrangement provides inputs for Phono, Tape, Auxiliary — plus outputs for "Tape Out". Front-panel pushbutton switches give you fingertip control of on-off, speakers, and all modes of operation. Two front panel headphone jacks are provided for private listening. private listening.

The tuner section boasts two integrated circuits and two ceramic filters in the IF to produce a selectivity greater than 60 dB, with superior amplifying/limiting characteristics. A phase lock multiplex demodulator 40 JB typical channel separation at less than 0.75% distortion. The FM tuner, providing 2 μ V sensitivity with a 2 dB capture ratio, comes preassembled to make kit-building even easier. AR-2020 SPECIFICATIONS

Kit AR-2020, includes cabinet, 31 lbs. 249.95*

AR-2020 SPECIFICATIONS

AMPLIFIER SECTIONS — Dynamic power output per channel (Music Power Rating): 25 W (8 ohm load)*, 30 W (4 ohm load), 14 W (16 ohm load). Continuous power output per channel: 15 W (8 ohm load), 20 W (4 ohm load), 10 W (16 ohm load). Power bandwidth for constant. 5% total harmonic distortion: 5 Hz to 30 kHz. Frequency response (1 W level): ±1 dB 7 Hz to 50 kHz. ±3 dB 5 Hz to 70 kHz. Harmonic distortion: Less than 0.5% from 20 Hz to 20 kHz @ 15 W output. Less than 0.25% @ 1000 Hz with 1 W output. Intermodulation distortion: Less than 0.5% with 15 W output. Less than 0.25% @ 1 W output. Damping factor: Greater than 30. Input sensitivity: Phono: 2.2 mV. Tuner, Aux, Tape: 200 mV. Input overload: Phono: 35 mV to greater than 5 V. Tuner, Aux, Tape: 200 mV. Input overload: Phono: 35 mV to greater than 5 V. Tuner, Aux, Tape: equency response: ±1 dB, 20 to 15,000 Hz. Sensitivity: 2 µV. * Selectivity: 60 dB.* Image rejection: 50 dB.* If rejection: 75 dB.* Capture ratio: 2 dB.* AM suppression: 50 dB.* Harmonic distortion: 0.5%.* Intermodulation distortion: 0.5%.* Hum and noise: 60 dB.* Spurious rejection: 70 dB.* FM (stereo) — Channel separation: 40 dB typical. Frequency response: ±1 dB from 20 to 15,000 Hz. Harmonic distortion: 0.75% @ 1000 Hz with 100% modulation. 19 kHz and 38 kHz suppression: 60 dB. SCA suppression: 55 dB typical. GENERAL — AC outlet sockets: 2, 1 switched and 1 unswitched. Dimensions: 5" H x 20" W x 14" D. *Rated IHF Standards.



New Heathkit 4-Channel Amplifier divides 100 watts IHF into any format you choose

Our AA-2005 4-Channel Amplifier will reproduce any discrete or matrixed 4-channel material on the market today. You can use it as a monophonic amplifier, stereo amplifier or as four individual amplifiers. Performance is impressive — 25 watts IHF, 15 watts continuous per channel; power bandwidth 5 Hz to 30 kHz for 0.5% THD; intermodulation distortion less than 0.5%; hum and noise, —60 dB for phono, 670 dB for tuner, auxiliary and tape. Complete specs are given in the amplifier section of the AR-2020 above. For quality, performance and price, you can't find a better 4-channel amplifier value.

HEATHKIT ELECTRONIC CENTERS
Units of Schlumberger Products Corp

Units of Schlumberger Products Corp.

ARIZ.: Phoenix; CALIF.: Anaheim, El Cerrito, Los Angeles, Pomona, Redwood City, San Diego (La Mesa), Woodland Hills; COLO.: Denver; CONN.: Hartford (Avon); FLA.: Miami (Hialeah); GA.: Atlanta; ILL.: Chicago, Downers Grove; IND.: Indianapolis; KANSAS: Kansas City (Mission); LA.: New Orleans (Kenner); MD.: Baltimore, Rockville; MASS.: Boston (Wellesley); MICH.: Detroit; MINN.: Minneapolis (Hopkins); MO.: St. Louis; N.J.: Fair Lawn; N.Y.: Buffalo (Amherst), New York City, Jericho; L.I.: Rochester; OHIO: Cincinnati (Woodlawn), Cleveland; PA.: Philadelphia, Pittsburgh; R.I.: Providence (Warwick); TEXAS: Dallas, Houston; WASH.: Seattle; WIS.: Milwaukee. Milwaukee

Free "	74 H	leathkit	Cata	log
--------	------	----------	------	-----



The FREE 1974 Heathkit Catalog has over 350 easy-to-build kits — in all price ranges —
offering better
performance
features for less money — and the satis-action of building your own. Send for your free copy today!

Heath Company Dept. 40-1	Schlumberger
Benton Harbor, Michigan 49022	
Please send my free 1974 Heathkit Catalog.	
☐ Enclosed is \$, plus shipping.	
Please send model(s)	
Name	
Address	
CityState	ZipHF-280
L	111-250

with a residual distortion of 0.9 per cent. The FM interstation-noise muting threshold was 40 microvolts, with the signal dropping out when it fell to 22 microvolts. The capture ratio was 2.2 dB, and AM rejection was a good 55 dB. Image rejection was 62.7 dB, with alternate-channel selectivities measuring 51 dB above the desired signal frequency and 61 dB below.

The stereo FM frequency response was unusually flat, with a total variation of less than 0.5 dB from 30 to 11,000 Hz: response was down 2 dB at 15,000 Hz. The 19-kHz stereo subcarrier in the audio outputs was suppressed by 60 dB. Stereo channel separation was excellent, better than 30 dB (typically 38 dB) from 30 to 8,000 Hz, and still 23.5 dB at 15,000 Hz. The AM frequency response was average, down 6 dB at 90 and 2,500 Hz.

• Comment. Even if we had never actually used the receiver, the measured performance of the Nikko unit would have given us a clear impression of a very competent performer, with all the power, sensitivity, and selectivity required in 95 per cent of the listening locations in this country. Add to this the other features of input and control flexibility, circuit-breaker protection, and the like, and the Nikko STA-7070 emerges as a notable value in today's market. Our impression was further enhanced by the ease with which the receiver surpassed most of its specifications in our bench tests.

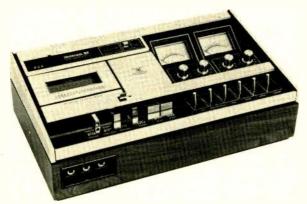
We take issue with only one characteristic of the STA-7070. In our sample the FM-muting threshold was set at about 30 microvolts. We don't know if this is normal for this receiver, but it means that in low signal areas the ad-

vantage of the Nikko's better-than-average noise-muting system would be lost, since it would have to be switched off in order to receive weak stations.

With most equipment, we rely on an extended period of normal use that serves, in conjunction with our test data. to provide an overall view of the product. The STA-7070 left an extremely positive impression and proved to be a smoothly operating, fine-sounding receiver. The FM dial is accurately calibrated (although the marking intervals of 2 megahertz are much too wide for effective use of that accuracy), and the muting circuit works positively, with barely a trace of noise or thump. If the STA-7070 is typical of the value offered in Nikko products, we can understand the many enthusiastic reader comments we have received about them.

Circle 106 on reader service card

Wollensak Model 4765 Stereo Cassette Deck



● THE Wollensak Model 4765 is actually the third-generation product in the company's series of de luxe cassette decks. It has Dolby noise-reducing circuits, microphone inputs that can be mixed with line sources, and separate recording- and playback-level controls. In addition, the output of an FM tuner can be passed through the deck's Dolby playback circuits for listening to Dolbyized FM broadcasts. This is done by a switch that also simultaneously shuts off the motor and places the transport mechanism in a STOP condition.

The transport of the Model 4765 is Wollensak's well-known U.S.-made mechanism, with a beltless capstan drive, heavy flywheel, and exceptionally fast operation in fast-forward and rewind modes. The transport shuts off and disengages automatically at the end of a tape or if the cassette jams. A small strip along the lower edge of the deck's cassette cover snaps out for easy access to the heads for cleaning. The transport is operated by two large pushbuttons (PLAY and STOP), in conjunction with a

smaller RECORD button. The fast-forward/rewind lever must be held in position while the tape is in fast motion. This is not at all inconvenient, since the Wollensak mechanism is about twice as fast as most other machines in its fast modes. There is a PAUSE lever, and a small EJECT lever next to the cassette opening.

Above the cassette area is a three-digit index counter and colored indicator lights to show whether the recorder is set for standard or CrO₂ tapes and whether the Dolby system is in use. A pushbutton that records a Dolby-level 400-Hz tone on the tape is located next to the Dolby light.

To the right of the cassette opening are two large, illuminated recording-level meters that read both recording and playback levels, and a red record-indicator light. Below the meters are four knobs for separate recording and playback level adjustment of the two channels; along the front of the deck are six toggle switches. The two Dolby switches (for REC/PLAY and FM listening) are to the left, followed by a tape selector

labeled STANDARD and CrO₂. The recorder is biased for 3M low-noise/high-energy tape, but other high-quality ferric-oxide tapes can also be used with the standard setting. This switch controls both recording and playback equalization, as well as bias and recording levels. The next switch parallels the inputs for making mono recordings. The INPUT switch is a three-position toggle, activating either the LINE or MIC inputs or mixing the two (although there are no separate gain adjustments for the two sources). The last control is the power switch.

Recessed into the rear of the wooden base are the line inputs and outputs, an unswitched a.c. convenience outlet, and the Dolby recording-calibration adjustments for both standard and CrO_2 tapes. The playback calibrations are inside the recorder and not accessible to the user. The two ¼-inch microphone jacks and a stereo headphone jack are in a recess in the front of the recorder base. The Wollensak Model 4765, with its dark plastic dust cover, is $17\frac{1}{4}$ inches wide, $10\frac{1}{4}$ inches deep, and $6\frac{1}{2}$ inches high; it weighs 16 pounds. Price: \$329.95.

● Laboratory Measurements. The play-back response over the range of the Nortronics AT-200 test tape was essentially within ±1 dB from 31.5 to 10,000 Hz, although one channel had slightly more output below 60 Hz. With TDK SD tape and the STANDARD tape-switch setting, the record-playback frequency response showed a slight rise with increasing frequency, beginning at about 1,000 Hz. This effect was minor, with a maximum

(Continued on page 44)

KENWOOD TWO-FOUR RECEIVERS

Three Ways to Enjoy the Best in 4-Channel...the Best in 2-Channel...the Best in Audio Value



KR-8340



KENWOOD's 'Two-Four' Receivers strap the power from four separate amplifiers to the front channels when 2-channel mode is selected to provide full-powered 2-channel performance. In the KR-8340, for example, 25 watts RMS power per channel (x4) becomes 60 watts per channel (x2), 8 ohms, 20-20k Hz.



KR-6340



KENWOOD's 'Two-Four' Receivers are capable of reproducing all the great new 4-channel programs: SQ, RM, and Discrete (including the newest CD-4 quadradiscs with the simple addition of an optional decoder/demodulator). The KR-6340 provides a full complement of 4-channel controls and terminals for PHONO, AUX, Tape and Main and remote 4-channel speaker systems.

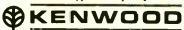




KENWOOD's 'Two-Four' Receivers give you a choice of power and sophistication to meet your own unique requirements for a complete 2-channel/4-channel system. The KR-5340 brings all the excitement of 4-channel sound to even a modest budget with the same KENWOOD quality and dependability of its more expensive counterparts.

the sound approach to quality

For complete specifications on KENWOOD's 'Two-Four' Receivers, write for color brochure.

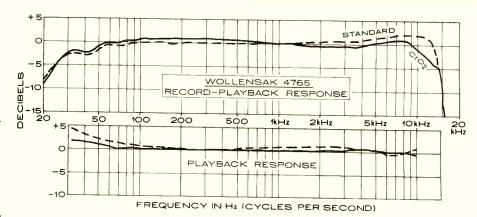


15777 So. Broadway, Gardena, Calif. 90248 72-02 Fifty-first Ave., Woodside, N.Y. 11377 In Canada: Magnasonic Canada, Ltd. output at 10,000 Hz only $2\frac{1}{2}$ dB above the mid-range level.

Referred to the 400-Hz level, the overall response of the Model 4765 was within ± 3 dB from 30 to 14,000 Hz. However, using the CrO₂ switch position to play back the TDK tape did a rather good job of "taming" the high-frequency rise and yielded an overall response of ± 1.5 dB from 30 to 12,500 Hz. We also experimented with other "standard" tapes such as BASF SK, and found that many of them gave virtually flat response extending comfortably beyond 13,000 Hz. Using CrO, tape, the response was flatter up to 10,000 Hz, but dropped off about 5 dB between 10,000 and 15,000 Hz. Overall, it was ± 3 dB from 30 to 14,000 Hz. The low frequencies, which fell off slightly below 80 Hz, were relatively free of the cyclic response variations found in many cassette recorders.

We measured the effect of the Dolby system on the record-playback response at levels from -20 to -40 dB. There was some change at high frequencies -typically from 1 to 3 dB above 1,500 Hz - although this varied with signal level. Although not serious (and not likely to be noticed in ordinary listening), this indicates some degree of Dolby-circuit misadjustment - something we have observed in many other cassette decks.

The input sensitivity for a 0-dB meter reading was 78 millivolts (LINE) and 0.065 millivolt (MIC). In the MIX input mode, the gain was about 1.5 dB lower. The corresponding playback output was 1.1 volts with TDK SD tape and 0.87 volt with CrO₂ tape. The standard 3 per cent harmonic distortion level was reached with a +4-dB recording input using either type of tape. The unweighted signal-to-noise ratio, relative to this level, was 58.2 dB with TDK SD, and 59.5 dB with CrO₂ (without Dolby). The



Dolby system improved these figures by 3.5 and 2 dB, respectively, but this does not reflect the audible improvement, since the "noise" was predominantly at low frequencies and therefore not affected by the Dolby circuits. (The low-frequency noise was inaudible with or without Dolby.) There was no measurable increase in noise when using the microphone inputs.

The combined wow and flutter in play-back (unweighted average) was 0.19 per cent, and the record-playback flutter was 0.25 per cent. A C-60 cassette was handled in 43 to 46 seconds in wind or rewind. Headphone volume with 8-ohm phones was good.

• Comment. The recording and play-back performance of the Wollensak Model 4765, as shown by the test data, was very good. We would judge the unit to be comparable in all important respects to other cassette decks in its price range. And its audible noise level, even without the Dolby system, is much lower than that of most machines we have tested.

The FM Dolby feature is a useful addition to this recorder. Although only

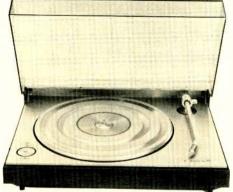
a few stations currently use the Dolby system, there will doubtless be more in the future. The Model 4765 did a fine job of restoring proper tonal balance and impressively improving the signal-to-noise ratio in our reception of local Dolby FM broadcasts. However, if you want to tape, these broadcasts should be recorded "as received" for best results. Unfortunately, when this is done, it is not possible to simultaneously *listen* to them with Dolby decoding.

The instructions for Dolby-system calibration in the otherwise complete 4765 manual were somewhat vague in spots. Fortunately, Wollensak informs us that the latest printing of the manual (dated 9/73 on the back page) has been rewritten to eliminate these ambiguities. The new manuals are available from Wollensak for any 4765 owner sending in a request.

Overall, we found the operation and sound quality of the recorder to be excellent. The Model 4765 certainly offers a combination of features and performance that is as versatile as could be wished, and fully in keeping with the Wollensak tradition in cassette decks.

Circle 107 on reader service card

B&O 3000 Record Player with SP-12 Phono Cartridge



• THE B&O Beogram 3000 is an integrated record player in which the charac-

teristics of the arm; turntable, and phono cartridge (a B&O SP-12A magnetic unit)

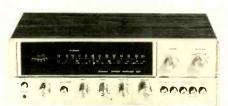
have been matched for optimum performance. The Beogram 3000 is a two-speed unit (33½ and 45 rpm) with several "semi-automatic" features and uniquely simple operating controls. A relatively light nonferrous platter, 11¾ inches in diameter, rests on a smaller inner turntable, belt-driven by a 2,750-rpm motor. The speed is adjustable over a nominal 6 per cent range by a thumbwheel under the edge of the mounting base.

The arm is a slim aluminum tube pivoted on ball bearings. A short, straight finger lift extends from the arm near the cartridge. The arm and platter are rigidly

(Continued on page 46)



so much power for so much less



Sansui's new 661 and 771 stereo receivers give you more power for less money. New IC chips and CBM (Circuit Board Module) technology make better and more reliable electronic circuitry and make it possible to offer these receivers at less cost than any other comparable quality unit.

For example, our new 771 AM/FM receiver puts a full 80 watts

For example, our new 771 AM/FM receiver puts a full 80 watts RMS (140 watts IHF) into 8 ohm speakers with both channels driven. That's enough power to drive two pairs of 'most anybody's speakers. And, at \$339.95, that's

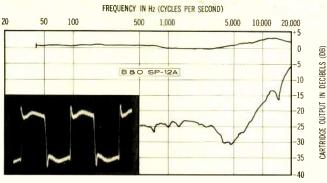
value. But power is not the only story behind our technology. CBMs mean that indivdual sections are more compact and built to closer tolerances. Our new IC equipped FM multiplex demodulator gives you better separation with less distortion. Hear the 771 or the 661, with 54 watts (110 watts IHF) for \$289.95, at your nearest franchised Sansui dealer.

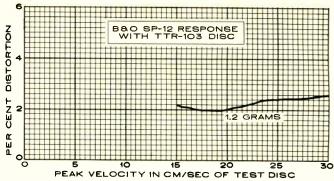




SANSUI ELECTRONICS CORP.

Woodside, New York 11377 • Gardena, California 90247
SANSUI ELECTRIC CO., LTD., Tokyo, Japan
SANSUI AUDIO EUROPE S. A., Antwerp, Belgium • ELECTRONIC DISTRIBUTORS (Canada) Vancouver 9, B.C





At left, the upper curve represents the averaged frequency response of the cartridge's right and left channels. The distance (calibrated in decibels) between the two curves represents the separation between channels. The oscilloscope photograph of the cartridge's response to a 1,000-Hz square wave is an indication of the cartridge's high- and low-frequency response and resonances. At right, the distortion exhibited by the cartridge playing the 10.8-kHz tone bursts on the Shure TTR-103 test disc at various recorded velocities is shown. (Most program material on discs has a velocity of well below 15 cm/sec, and it only rarely reaches 25 to 30 cm/sec. This is therefore a demanding test.)

joined together as a unit and "floated" from below the motorboard on springs that "tune" the whole assembly to a resonance of about 4 Hz-low enough to eliminate the likelihood of acoustic feedback, yet high enough to render the unit insensitive to external shock and jarring. The arm is initially zero-balanced by an adjustable counterweight, and then the stylus force is dialed in by a small knob on the pivot housing. The calibrations are from 0 to 3 grams at 0.5-gram intervals. According to the manufacturer, fixed anti-skating compensation is applied by an inclined channel inside the bearing structure. The cartridge is a B&O SP-12A, identical to the latest SP-12's except for its external mechanical design which permits it to be plugged directly into a socket at the end of the B&O arm. (The SP-12 is fitted with standard screw-mounting hardware for installation in conventional arms.) The cartridge is fitted with a polished, naked elliptical diamond having tip radii of 0.2 x 0.7 mil.

The Beogram 3000 is controlled by a single feather-touch pushbutton (labeled LIFT) concentric with a switch that performs the multiple functions of selecting the turntable speed and the arm-indexing diameter. When the selector is set for records 10 or 12 inches in diameter, a touch of the button starts the turntable at 331/3 rpm, moves the arm over the lead-in groove, and lowers it gently to the record surface. Pressing the LIFT button at any time raises the pickup and shuts off the motor; a second push starts the motor and lowers the pickup, with no lateral tone-arm drift. At the end of the record, the arm returns to its rest position and the motor shuts off. In the 7-inchrecord position, the operation is similar, except that turntable speed is 45 rpm.

For manual operation, a MANUAL switch setting turns on the motor; the arm must be indexed manually, cued by the LIFT button, and the automatic shutoff feature is still operative. The clear plastic tip of the cartridge permits the stylus to be viewed easily for accurate indexing. Nonstandard records, such as

7-inch 33½-rpm and 12-inch 45-rpm discs, must be played using the MANUAL mode in order to avoid the automatic speed selection.

Deep circular channels in the platter surface permit a finger to be inserted under the edge of a disc of any size so that records can be easily removed. There is a retractable 45-rpm spindle at the platter's center. A ring of stroboscope markings around the spindle area is used for initial speed adjustment. Although there is no conventional arm rest. the arm is supported at a safe height by a small post near the pivots at all times, except when lowered by the LIFT button. The Beogram 3000 is supplied on an attractive wooden base, with a hinged plastic dust cover. The overall dimensions are about $17\frac{1}{4} \times 13 \times 4\frac{1}{2}$ inches: weight is 20 pounds. Price including cartridge: \$265. The SP-12 cartridge is available separately at \$85.

● Laboratory Measurements. The measured wow and flutter were respectively 0.05 and 0.04 per cent at both speeds. Unweighted rumble was very low: −45 dB in the lateral plane and −38.5 dB with the vertical and lateral components combined. With RRLL audibility weighting, the rumble was −54.5 dB, typical of today's better turntables. When the speed was set correctly, the adjustment wheel had a range of +7.3, −1.7 per cent.

The tone-arm tracking error was very

low – under 0.25 degree per inch for record radii from 3 to 6 inches, and increasing to a still good 0.6 degree per inch at a 2½-inch radius. When the tone arm was balanced according to instructions, the tracking force was higher than the calibrations of the dial by about 0.2 gram at a 1-gram setting. This error is not only quite small, but is in a "safe" direction. Once set accurately at 1 gram, the tracking-force dial was accurate within 10 per cent.

The built-in SP-12A cartridge has a recommended tracking force (in this arm) of 1.2 grams. Its output was slightly higher than some other high-quality cartridges—about 4.5 millivolts for a 3.54 cm/sec (centimeter per second) recorded velocity. The frequency response (with the CBS STR 100 test record) was uniform within ±2 dB from 40 to 20,000 Hz, with no indication of any low-frequency resonances or other response irregularities over this range. The channel separation was 20 to 25 dB or more over most of the audible range, decreasing to 10 to 15 dB above the 15,000-Hz level

The 1,000-Hz square-wave response with the CBS STR 111 record had a single overshoot. We measured the "trackability" of the SP-12A with the Shure TTR-103 record—which measures intermodulation (1M) distortion at medium-to-low, middle, and high frequencies—at a number of high velocity lev-

(Continued on page 48)



Removal of the Beogram 3000's upper platter exposes the belt-driven lower section. The retractable 45-rpm spindle can be seen at center.

WHILE OTHER STEREO MANUFACTURERS WERE BUILDING MORE POWER INTO THEIR COMPONENTS, WE WERE BUILDING LESS DISTORTION INTO OURS.



The engineers of this new receiver were ordered to give it more watts than ever before. "Power's what turns 'em or today" the engineers were told.

It even features a switch for breaking windowpane and other household glass.



Our engineers gave the new Yamaha stereo receivers 20% less power than competing models.

Why would they do a thing like that?
In order to give you <u>80%</u> less distortion for the same money.

They know the importance of lower distortion compared to higher power ratings.

Distortion can make you tired of listening. It fouls up good sounds, can cause headaches, and drive neighbors bananas.

And if you're worried about missing that 20% "extra" power, our engineers say it's less than 1 dB, which can barely be heard.

What can be heard is the clean difference Yamaha's typically .08%* distortion amplification can make.

Especially after listening for a while (people become more critical as time goes on).

Avoid distortion.

Hear our new components at your Yamaha Audio dealer soon.

*Report substantiating low Yamaha distortion is on file. For a free copy, write:

YAMAHA AUDIO DIVISION Box 6600, Buena Park, California 90620

While others struggle to meet the demands of discrete four channel sound...

AUDIO-TECHNICA introduces its 2nd generation 4-channel phono cartridges.



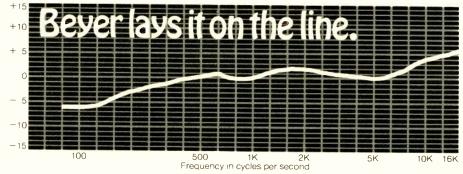
Now you can play any kind of stereo or 4-channel record, including the most demanding discrete 4-channel discs. Audio-Technica Model AT14S with Shibata stylus provides 5-45,000 Hz response. Unique Dual Magnet* design and ultra-precise fabrication sets new performance standards for others to copy. From Japan's most advanced phono cartridge manufacturer with a 10-year history of innovation and design leadership.

Write today for technical data on the entire line of Audio-Technica Dual Magnet cartridges for every high fidelity system.

*Patents pending.

audio-technica.

AUDIO-TECHNICA U. S., INC., Dept.14F, 1655 W. Market St., Fairlawn, Ohio 44313 CIRCLE NO. 4 ON READER SERVICE CARD



For the demanding professional, some mike manufacturers furnish a frequency print out as proof of performance.

Unfortunately, when it comes to low cost mikes for home use that practice is not only costly, but could prove embarrassing. Besides, you shouldn't expect a guarantee with

an inexpensive mike

Or should you?

You can if you buy the new Beyer 550.

At only \$37.50, the Beyer 550 provides authenticated performance at a price you can afford.

And what performance. In one elegant package you get smooth, wide frequency response, omnidirectional pickup pattern, low distortion and high signal-to-noise ratio.

Finally, you get the most generous warranty in the industry and that's another way Beyer lays it on the line.

Another innovation from Beyer Dynamic, the microphone people. Revox Corporation. 155 Michael Drive, Syosset, N.Y. 11791

Beogram 3000 . . .

(Continued from page 46)

els. The results were impressive and showed this cartridge to be comparable to the best we have tested with this relatively new record. The low-frequency arm/cartridge resonance appeared to be just below 10 Hz—the lower limit of our test record.

• Comment. The operation of the B&O Beogram 3000, despite (or perhaps because of) its unconventional controls, was so straightforward that no learning time was required for familiarization. Its human engineering makes this a completely natural record player, with all the versatility one could desire, yet so simple that any child could be trusted to use it (no handling of the tone arm is necessary, except when "cueing" a selected band of a record).

The arm and cartridge provided some welcome surprises. For one thing, the tracking ability of the cartridge - its ability to play extremely high recorded velocities without distortion at all frequencies – proved to be exceptional. The two Shure "Audio Obstacle Course" records, which can tax the capabilities of almost any cartridge, presented no problems to the SP-12A. The results of this subjective test, plus our measurements, convinced us that at its rated 1.2-gram force, this cartridge is the equal of any we have tested in respect to tracking ability, and markedly superior to the earlier SP-12. Predictably, its sound on musical material was neutral, effortless, and notably free of distortion.

The SP-12A tracked the highest velocity (32-Hz) tones of the Cook 60 test record without a trace of strain (many pickups have difficulty merely staying in the grooves of this test band). When we checked the anti-skating compensation with 30-cm/sec, 1,000-Hz tones, it was plain that the compensation was somewhat less than optimum, with slight waveform clipping on one channel while the other was perfect. Even so, the cartridge did a better job of high-velocity tracking without compensation than most can do with it.

An important benefit of the integrated arm/cartridge design is the low mass of the system. A severely warped "test record" we keep in stock, one which causes virtually all pickups to lose contact, presented no problems to the B&O unit. No other pivoted arm we have ever used has been able to play this record. The B&O Beogram 3000 is, by any standards—aesthetic, technical, or just plain audible—a superior record player. In today's inflated market, even its price does not remove it from the "bargain" category.

Circle 108 on reader service card

"The performance of the PE 3060 ...belongs in the top rank of automatic turntables."



We've been saying this all along. But it's always more impressive when someone else says it. Especially Hirsch-Houck Labs, as they did in the October Stereo Review. For example:

"...(Rumble) measurements were about as good as we have ever measured on an automatic turntable... – 55 dB [weighted]. Wow (0.07 percent) and flutter (0.04 percent) were also low. Turntable operating speed was absolutely unaffected by line-voltage changes from 105 to 135 volts, and the vernier adjustment range was + 5.3, –4 percent, a somewhat greater range than is usually available."

Hirsch-Houck found the 3060's tonearm to be equally praiseworthy.

"The tonearm pivot friction was low, and we judged it to be quite compatible with PE's minimum rated tracking force

of 0.5 gram...the tracking-force dial proved to have less than 0.05 gram error from 0.5 to 1.5 grams...lateral tracking error was extremely low. There was no armposition drift during cueing descent, even at the maximum anti-skating setting."

And this is Hirsch-Houck's evaluation of a PE exclusive:

"A unique feature of PE turntables is their automatic-record sensing and indexing system, which prevents the arm from leaving its rest during automatic operation unless a record is on the platter ... It is also used in a most ingenious manner as part of the record-size indexing system. We consider (this) to be a significant feature, somewhat analogous to an especially tasty icing on an already well-baked cake."

We couldn't have said it better. Or sweeter.



Listen for ten days free...

Discover for yourself why the Karl Böhm recording of

MOZART'S SIX GREATEST SYMPHONIES has won three major awards!

Then keep it, if you wish, for less than HALF the regular price!



Let Deutsche Grammophon's famous triple award-winning recording of Mozart's Six Greatest Symphonies introduce you to a totally new concept in listening enjoyment!

ONLY THE WORLD'S GREATEST MUSIC... ONLY IN AWARD-WINNING RECORDINGS!

Buy just the records you wish-after you hear them at home free!

BEAUTIFUL AND MAGNIFICENT **BEYOND COMPARE...** THE SUPREME SYMPHONIC MASTERPIECES OF MUSIC'S **GREATEST NATURAL GENIUS!**

> Symphony No. 41, "Jupiter" Symphony No. 40 in G minor Symphony No. 39 in E-flat Symphony No. 38, "Prague" Symphony No. 36, "Linz" Symphony No. 35, "Haffner" Extra! Symphony No. 32

Wolfgang Amadeus Mozart-divinely gifted beyond any other musician who ever lived! And into his six greatest symphonies he poured a multitude of his most astonishingly beautiful, incredibly moving inspirations!

Now you are invited to hear these miraculous works in their finest recording ... interpreted with extraordinary empathy by Karl Böhm, world-famous conductor ... played to perfection by the fabulous Berlin Philharmonic Orchestra...captured with unsurpassed stereo realism by Deutsche Grammophon's brilliant audio engineers! So outstanding is this recording that it has won three of the music world's most eagerly sought honors: the Grand Prix International du Disque, Edison Award and Deutsche Schallplatten Prize!

Because Mozart's Six Greatest Symphonies, by Karl Böhm, has met with almost unprecedented acclaim, it has been chosen to introduce you to the Great Awards Collection, a totally new concept in home listening. You may enjoy all six masterpieces, on three superb-quality, imported records, for ten days absolutely free. Then keep them, if you wish, for less than half the manufacturer's suggested list price! Simply mail the postpaid card today. Six spellbinding symphonies:

melodic . . . tender . . . powerful

Listeners new to the classics love Mozart at first hearing for his simplicity, charm and unforgettable melodies. Listeners already familiar with these symphonies never stop discovering new subtleties, new joys. Mozart stands

> Imported from Deutsche Grammophon for superior sound quality!
> Compare these with almost any domestic record. You'll be amazed at their silent surfaces...freedom from defects...crisp, natural stereo fidelity!

Send no money now just mail coupon today! Listen free for ten days. Then save more than 50% off regular price if you decide to keep Mozart's Six **Greatest Symphonies!**

unequalled for his fluent, effortless transitions between moods ... exhilarating drama, rapturous lyricism, poignance beyond words, irresistible gayety.

span of a single, masterfully architected symphony.
You listen spellbound, from the powerful opening statement of the *Haffner* Symphony... through the warm and colorful Linz... to the scintillating finale of the Prague. Then you are utterly overwhelmed by Mozart's last three symphonies, the passionate No. 39, tempestuous No. 40, and—its closing fugue leaving you breathless with excitement—the mighty *Jupiter!* (You also receive the brief but delightful Symphony No. 32.) Of all the great composers, it is Mozart, in his deep humanity, who inspires the most affection!

What a wonderful library, with Mozart's Six Greatest Symphonies as a cornerstone, the Great Awards Collection helps you build for yourself and your family! For this is the *only* organization that offers you *exclusively* those recordings that have won major international awards! Distinguished jurors each year select, out of many hundreds of classical releases, a "golden few" adjudged the very finest for music, interpretation, performance and sound-quality.

Collect award-winning albums! Save through half-price bonus offer!

Every monthly selection you receive from us - for your free ten-day audition—is chosen from among those "golden few." Without charge or obligation, you will thrill to the favorite concert music of three centuries, in its most honored performances, by top orchestras like the Boston Symphony, Concertgebouw Orchestra of Amsterdam, London Symphony, I Musici ... under Herbert von Karajan, Colin Davis, Rafael Kubelik and other celebrated conductors ... featuring such exciting soloists as Sviatoslav Richter, Dietrich Fischer-Dieskau, Claudio Arrau, Montserrat Caballé and Mstislav Rostropovich. Famous awards won by these recordings include Grand Prix International du Disque...Deutsche Schallplatten Prize...Academie National du Disque Lyrique... Edison Award...Prix Mondial du Disque...Record Academy Prize of Japan Grand Prix National du Disque Grand Prix des Discophiles and Grand Premio del Disco Ondas.

Each month you will be shipped the latest selection to audition. Then either return it, or keep it at our special members' price, always below suggested list price. And save even more under this half-price bonus plan: for every record you buy at members' price, choose another one, if



you wish, at 50% off members' price, from a generous list of award-winners and other critically acclaimed LPs! You may cancel your membership privileges at any time.

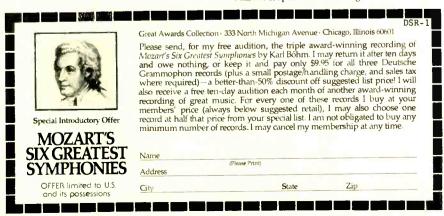
How many records are you committing yourself to buy when you return the coupon below? None at all! Even your introductory set of Mozart's Six Greatest Symphones comes to you on approval. Audition it free for ten days, then either return it-or keep it for only \$9.95 for all three records, plus a small postage/handling charge (and sales tax where required).

Here at last is the ideal way to acquire, in easy stages, a connoisseur's record library without wasting a penny on disappointing purchases. You listen at home to every award-winning selection before deciding whether to buy it! Please act today! Begin your money-saving, no-obligation membership in the Great Awards Collection by mailing the postpaid card for your free trial, with purchase optional at less than half-price, of Mozart's Six Greatest Symphonies—a recording for the ages!

Seven ways the Great Awards Collection helps you enjoy fine music more than ever!

- 1. Greatest music by the immortal composers A major award-winning recording chosen every month.
 Superior imported LPs—silent surfaces.
- Free ten-day trials of all selections.
- No obligation to buy keep only the records you want. Big savings through Half-Price Bonus Plan.
- Sensational introductory offer. Mail card today!

Mail this coupon if card is missing





PLASTIC STRAWS IN THE WIND

LONG-PLAYING records are made out of a substance called vinyl, the correct chemical name of which is polyvinyl chloride, commonly known in the plastics trade as PVC. In normal times (if there are such times) this bit of chemical information would be of negligible interest to record collectors, but these apparently, are not normal times. According to the Society of the Plastics Industry, commercial PVC is made from a chlorine derivative of ethylene, and that means it is a by-product of petroleum, abbreviated in newspaper headlines these days as "OIL."

News stories may be confusing about the causes, but even the most superficial reading of the reports must reveal the basic problem: there is an oil shortage. If this brings back, to those who remember World War II, memories of such things as gasoline rationing, insufficiently heated houses and apartments, and the like, today it also leads to a new equation. In its simplest terms it reads: the less oil, the less vinyl.

"The greatest crisis the record industry has ever faced," says one of the trade papers, quoting an unnamed record company president. One would perhaps be more impressed by the statement if hyperbole were not a standard ingredient of the speech of the record industry. Perhaps more striking are some of the facts, the events which, if one could trace them all to a common problem. would constitute overwhelming evidence of a serious situation. However, they cannot all be so traced, and they may, in actuality, turn out to be mere local quirks. For what they are worth, then (and no more), the facts are these.

- (1) Within the last few months several pressing companies have raised their prices and others have applied for such raises.
- (2) A major pressing company has notified its customers that their future pressing orders will be cut by 20 per cent and has advised those customers to

make up their own minds how they want to use the vinyl they will be allowed.

- (3) A major pressing plant has reduced its work schedule from six days and three shifts to five days, two shifts.
- (4) A short time ago a major record company, which also did pressing work for others, announced that it would no longer accept such orders.
- (5) A major record company made tentative plans to cancel its November popular disc release and to halve its classical release.
- (6) Another major record company has instituted cuts across the board in *all* planned releases.
- (7) There has been some talk about recycling old material (cut-outs, returns, and defectives), surely an extreme solution given the nature of the product.
- (8) At least one of the three major American producers of PVC has told the record industry that there is, or shortly will be, a shortage.

Now, one can rationalize some of these events in ways that have no reference to vinyl. There are some new top-level people in the industry, and a common first action of such newly appointed chiefs is to cancel releases and generally trim things down. The record company that will no longer do custom pressing may have found that operation more trouble than it was worth, or may need the facilities for its own use. The cost of pressings can go up for any number of reasons, and labor is a more common one than raw materials. And so on.

One can add to this not only that record companies whose pressings are imported do not seem to be worried at the moment, but that such a company as Angel—which presses in the United States, but has the potential capability, through its parent company EMI, of pressing in England—is not, at least at this time, considering that move. One wonders, then, if the so-called oil shortage is really at the root of the situation. There is, theoretically, plenty of oil

available to countries not in the Arabs' bad graces just now, and it has been estimated that even of the United States' oil consumption. only about 5 per cent derives from the Middle East.

There is, of course, a demand for PVC from other industries, notably for the manufacture of plastic piping. That may be a factor. Also, PVC is not as easy to make as corn flakes. The process is complex and costly, and suppliers are therefore few. Where there are few suppliers of a "raw" material, one must always be prepared for trouble.

In sum, it is extremely difficult to determine just what is going on. But let us assume that there is a national (rather than an international, which seems more farfetched) vinyl shortage. What are the results likely to be?

FIRST, I think we can look for a price rise on the part of domestic record manufacturers. They have needed to take such a step for years, though they have been scared to do it. Now, if they are to have less to sell, they will have to get more for it to sustain their overhead.

Second, the quality of domestic pressings will probably go down. Even if regrind is not used (and that would mean a serious drop in quality), pressing plants will be in a sellers' market, and therefore far less likely to act upon complaints. One wonders immediately, then, about the fate of CD-4 discrete quadraphonic discs, which require a particularly high grade of vinyl for their manufacture.

Third, small record companies may find themselves in a squeeze. Many of them depend on credit, and with a vinyl shortage and a sellers' market, the presser is likely to demand money on delivery, and, in general, give preference to his larger customers.

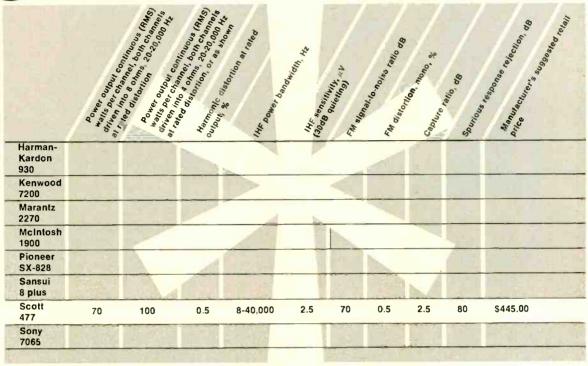
Fourth, the larger record companies may have to abandon the scatter-shot technique of pop releases and save their pressing allotments for what they are sure will sell. They may also abandon repressing most catalog items.

Fifth, releases in general will probably be cut down, making less available to the consumer and probably meaning the accumulation of a large stockpile of still-to-be-issued master tapes. This, in turn, will make classical divisions especially appear less profitable.

Sixth, foreign-based companies, provided they experience no shortage themselves, will find this an unprecedentedly good time to push their products, and outlets previously loath to carry imports may have to change their minds.

What about tape? There is, apparently, no immediate shortage, but there may be a problem with plastic for reels and cartridge and cassette housings. Perhaps a substitute can be found for that. Will the recording release of the future, then, be offered first as a tape—also available on disc at a dollar more?

Before you buy just any high powered receiver



...check out the Scott 477

As an astute audiophile, you naturally want to compare specifications and prices on the better makes of equipment before committing yourself to a major purchase.

If it's a high powered receiver you're after, we've simplified your selection by preparing a specification chart comparing our 477 AM-FM Stereo Receiver with its closest competitors.

We'd like to send you a copy of the complete chart showing specs and

find the Scott 477 is the value-for-the-price leader among this distinguished grouping of top-of-the-line receivers.

If you're not convinced by specs alone, we further invite you to ask your Scott dealer for a listening test of the 477 Stereo Receiver played through your favorite speaker system. Check its performance on both recorded and broadcast program material of your choice. Then, compare the 477 with any other receiver in its price/performance class.

We believe you'll find the Scott 477 AM-FM Stereo Receiver is your best choice.



*For your free copy of the high powered receiver chart, circle reader service or write to us directly.

where innovation is a tradition



Left to right: Arthur Kane, Jerry Nolan, David JoHansen, Sylvain Sylvain, and Johnny Thunders

THE SIMELS REPORT

THE NEW YORK DOLLS

We ain't (really) heard nothing yet

F you were an adolescent in the Chicago area around the winter of 1965, then chances are your favorite band was the Shadows of Knight. The Shadows were five suburban kids who became, for a variety of reasons, the absolute kings of the teen-band circuit. First off, they were pretty good musicians, and they could imitate the heavier British-invasion stuff of that era (Stones, Yardbirds, etc.) better than anyone else in the area. Second, they had what we used to call charisma; they were all moody types who could fake being English on a visual level, and they had the life style down pat. (There were lots of stories circulating about lead singer Jim Sohns' being busted before a concert for . . . ahem . . . well, let's say activities involving an underage female fan and leave it at that.) Eventually, they got a national hit with their cover of Them's Gloria, which they had already made into the Chicago Teenage National Anthem, and then they promptly faded into obscurity, leaving behind a couple of entertaining albums and some very nice memories. I bring all this up because somewhere, I suspect, at this very moment, they are having a quiet laugh about the rise of their most obvious spiritual heirs - the New York Dolls.

My first exposure to the Dolls, not counting Ed McCormack's feature spread on them in the lamented Metropolitan Review (lamented because when they folded a few weeks later they owed me lotsa bucks) came rather late, by New York standards anyway. In fact, all through the summer of '72 I deliberately put off seeing them. This was largely

because of the "New Stones" hype they were receiving; after all, the genuine article had just been in town, having put on one of the greatest rock-and-roll shows I've ever witnessed, and I was in no mood to be charitable. Nonetheless, by the time I finally got around to them, they had become the undisputed rock darlings of the city, the first New York band since the Velvet Underground (or the Blues Project, or the Rascals—anyway, it had been a long time) with a legitimate local following.

So the first night I was to catch them at their home-town stomping grounds (the now defunct Mercer Arts Center) I allowed myself to anticipate something really great. There was drama in the air-the Dolls had just returned from a triumphant English tour (without benefit of recording contract!) where their original drummer had died in a tragic if trendy drug mishap, representatives of almost all the major record companies were in the audience, and there was, in general, a definite feeling of Event in the Making. Finally the Dolls rushed on stage, looking fabulous, there was a quick "Hello, New York," the band hit into Chuck Berry's Back in the USA (a terrific choice), and then . . . nothing. They couldn't even play the song, and if you can't play Chuck Berry then you sure can't rock-and-roll, as David Bowie proved so vividly with Around and Around. The rest of the set was a total fiasco, equipment breaking down all over, the band ragged and on the verge of hysteria. I left early, and when some fellow critics told me next day that the

second set had been far better, I merely curled my lip. Having been in garage bands myself, I felt that I had seen quite enough.

To be fair, I did go back on a few other occasions, and yes, they were infinitely more together, but still I was bothered by the blatantly secondhand nature of the whole business. Every move they made, musically and visually, was shamelessly and completely derivative of the Stones. Lead singer Donald Jo-Hansen looked, as one writer put it, like Jagger's skinny kid sister, and guitarist Johnny Thunders was a younger, chubbier version of Keith. During a typical performance you could actually sit there picking out where they had gotten their moves: oh yes, Mick did that step on Shindig in '65, and, let's see now, Keith vamped the drummer like that on the last tour, and so on. Of course, on that level it was fun, but not to be taken seriously.

SLOWLY, though, I began to realize that with the Stones so remote and distant, and with "Exile" such a generally depressing work to contend with, just about any version of them, even a surrogate, was desperately needed. If you were born too late to have been at the Crawdaddy Club in 1963, then the Dolls at Mercer in '72 might be a reasonable alternative. I confess their music was growing on me as wellgranted that their rhythm section can at best be described as adequate (and, to be honest, it's not much worse than, say, Creedence's) and that JoHansen has a voice like a frog, there was that undeniable energy, and the guitarists were really terrific in the classic (if currently unfashionable) twin rhythm-lead manner. The last time I saw them I was quite charmed

Well, their record has been out for a while now (see "Todd Rundgren," page 94), and I'm a believer-almost. Of course, I'm disappointed that they didn't have the guts to have Shel Talmy produce them in a two-track mono studio, but Todd Rundgren has done right by them, and the album as a whole has an appropriately anarchic clang to it. More important, the material finally has made sense to me. Underneath the urban chauvinism and the drag posturing, there turns out to be a quirky sort of intelligence at work; JoHansen's songs, a mildly silly amalgam of early-Sixties girlgroup r-&-b and British story rock circa '66, are actually rather touching.

But the question remains: is the Dolls' *Trash* a better song and performance than the Shangri-Las' *Give Him a Great Big Kiss*? In other words, do the Dolls transcend their sources the way the Stones ultimately transcended Chuck Berry, or are they merely another nice temporary noise? I have a feeling that only the Shadows know, and it looks (so far) like they ain't telling.

Radio Shack puts more into its Realistic speakers by leaving a few things out!

We leave out things like distributor profits . . . trade shows . . . sales contests. Because we design our own speakers . . . have them made to our specs . . . and market them through our own 2000 stores. This eliminates waste. Which lets us put "in" things like strict quality control . . . unique features . . . and a *Lifetime Guarantee. Because we've left out costs other brands must pass on to the Consumer. We think this is the way you want us to be. Only at Radio Shack — the famous Realistic Optimus series.



Optimus-1. The original — the one that cut the cost of uncolored audio 30%. Acoustic suspension 10" woofer, 2 tweeters. 23x12x111/2". 89.95





Optimus-5. Tens of thousands in use. Acoustic suspension 12" woofer, 3 midrange /tweeter units. $25x14x11\frac{1}{2}$ ". 109.50

Optimus-7. The best! Acoustic suspension 12" woofer, 61/2" midrange, 21/2' tweeter, sound "tailoring" controls. 27x24x153/4".

Lifetime Guarantee

Radio Shack guarantees without time limitation the proper electro-mechanical function of all Realistic Optimus speaker systems in original unopened factory enclosures, providing that the system has not been physically abused (our determination is final) and that the owner provides transportation to and from the repair site. Your system must function properly or Radio Shack will repair it FREE OF PARTS & LABOR COSTS — today, tomorrow, foreverl This guarantee is honored at all Radio Shack stores from coast to coast. Your receipt is all you need to obtain LIFETIME free service!

A TANDY CORPORATION COMPANY

P. O. Box 1052, Fort Worth, Texas 76107

FREE! 1974 CATALOG

AT YOUR NEARBY STORE OR MAIL COUPON 180 Pages . . . Full Color! Hi-Fi, Recorders,

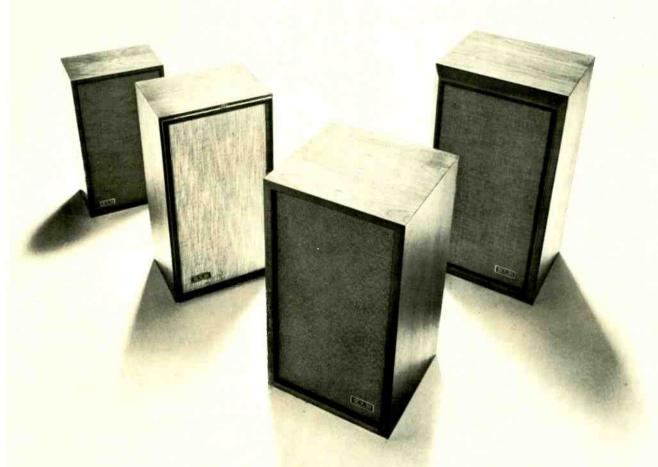
	ts, word.	
Name		Apt. #
Street		
City	State	ZIP

- — Retail prices may vary at individual stores.— — •

The classics from KLH. Four bookshelf loud-speakers of such extraordinary quality that each has set the standard of excellence in its price range. Pictured to the far left, our popular little Thirty-Two (\$55.00†). Next, one of the best selling loudspeakers in the country, the Seventeen (\$79.95†). Up front, everybody's favorite, the Six (\$139.95†). And finally, our most spectacular bookshelf model, the Five (\$199.95†). If you really want to know what KLH is all about, we suggest you listen to any one or all of these fine

loudspeakers. And when you do, also look for our other bestsellers—the KLH stereo receivers. The Model Fifty-Five (\$219.95[†]); the Model Fifty-Two (\$319.95[†]); and our newest receiver, the stereophonic/quadraphonic Model Fifty-Four (\$525.00[†]). KLH—the best thing to happen to bookshelves since books.

For more information, visit your KLH dealer or write to KLH Research and Development Corp., 30 Cross Street, Cambridge, Mass. 02139.



What's a bookshelf without the classics?



KLH RESEARCH AND DEVELOPMENT CORP. 30 Cross St., Cambridge, Mass. 02139

†Suggested retail prices—slightly higher in the South and West.

REPERTOIRE No. 165 By MARTIN BOOKSPAN

PAGANINI'S VIOLIN CONCERTO NO. 1

Nobody knows exactly how many violin concertos Niccolò Paganini composed. At one time it was believed that there were as many as eight of them, but current investigation has yielded up only five, and it is thought unlikely that there are any more. The reason for the mystery and confusion is that the composer allowed none of them to be published during his lifetime. He kept them strictly to himself—perhaps to encourage the widespread belief that Paganini and no one else could master their fear-some technical difficulty.

Music historians are thus confronted with problems regarding not only the extent of Paganini's output, but also the chronological place of specific works in his catalog. His Violin Concerto No. 1, in D Major, is by far his best-known score for violin and orchestra, yet there is no certainty as to its date of composition. An early biographer, the Frenchman François Joseph Fétis, wrote: "I have an indistinct recollection of his having composed it in 1811." The Oxford History of Music gives the date as 1820, and further confusing the issue is a letter from Paganini himself that speaks of a performance of the concerto at La Scala in Milan in March 1816. The one certain fact is that it was not published until 1851, eleven years after Paganini died.

Long before the processing and selling of art and artists became the sophisticated business that we know today, Paganini was an expert practitioner. In stories circulated concerning his superhuman powers as a virtuoso, he encouraged speculation that he was in league with the devil himself. His dress and personal demeanor were calculated to reinforce this notion. No less keen an observer than the German poet Heinrich Heine described Paganini as follows after observing him in June 1830:

Only in crude strokes can those supernatural features be painted—features that seem to belong to the sulphurous realm of shadows rather than the sunny world of living things. His long black hair fell in twisted curls about his shoulders and formed a dark frame around a pale, corpse-like face on which trouble, gen-

ius and hell had engraved their indelible marks.

And of Paganini on the concert platform Heine wrote:

A dark form appeared, looking as if it had risen from the underworld, his black coat and vest of a terrible cut, his black trousers flapping disconsolately against his bony legs. His



Paganini visited and played in Britain in 1831-1832, and this ink sketch by Sir Edwin Landseer captures his appearance in concert.

long arms seemed to be lengthened by the violin he carried in one hand and the bow he carried in the other, both almost touching the floor. In the angular contortions of his body movements there was a horrible woodenness that involuntarily called forth our laughter. . . . But all such thoughts vanished instantly when this marvelous master placed the instrument under his chin and began to play.

Paganini's sense of show biz also extended to other areas. He announced as E-flat the key of what we now know as his D Major Concerto, and the manuscript parts he handed out to orchestras were in E-flat. Violinists were incredulous at seeing Paganini perform with ease passages that were virtually impossible in E-flat. They could not have guessed that Paganini had carefully tuned his instrument earlier and had raised the pitch of each of the strings a half tone, enabling him to finger his part in the elementary key of D. Of such tricks are legends born!

There is an operatic character to the opening movements, allegro maestoso, of the First Concerto. Passages of brilliant display alternate with tender, lyrical ones, and in the middle section there is intense pathos. The slow movement, adagio, also alternates dramatic and lyrical moments, while the rondo finale, allegro spiritoso, is a grab bag full of technical fireworks: left-hand pizzicato, bouncing bow, harmonics in the extreme high register, and so forth.

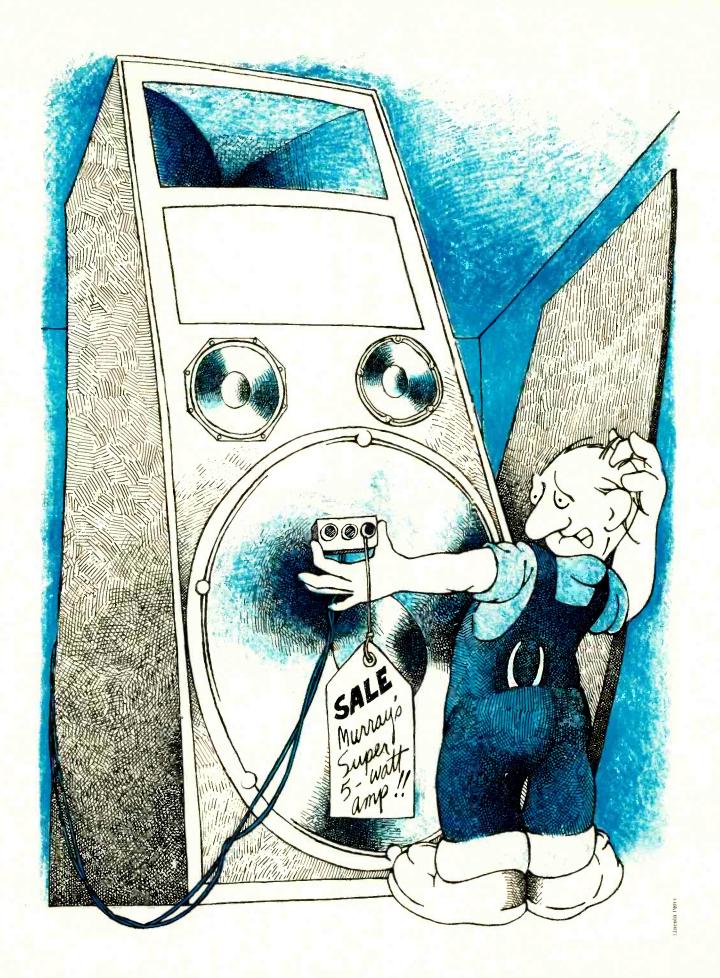
OF the half-dozen or so currently available recordings of the work, four are extremely worthy: those by Erick Friedman (RCA Victrola VICS 1647), Shmuel Ashkenasi (Deutsche Grammophon 139424, reel L9424, cassette 923097), Arthur Grumiaux (Philips 6500411, reel L5411, cassette 7300204), and Itzhak Perlman (Angel S 36836, cassette 4XS 36836). All four violinists bring blazing technical virtuosity to their performances, all are given sympathetic conducting and orchestral support, and

all are well recorded. My own favorite of the lot is Friedman, who seems to summon just that extra bit of devil-may-care abandon, and who seems to enjoy the wit and dash of the piece rather more than his colleagues. The recording engineers provide an opulent sonic frame for Friedman's performance, and conductor Walter Hendl, like Friedman, seems to relish the finer points of the scoring more than the other accompanying conductors; a fine example is his meticulous pointing of the solo bassoon notes that reinforce the solo violin's statement of

the last movement's rondo theme the

second time around.

Mr. Bookspan's 1973-74 UPDATING OF THE BASIC REPERTOIRE is now available in pamphlet form. Send 25¢ to Susan Larabee, Stereo Review, 1 Park Avenue, New York, N.Y. 10016 for your copy.



60

HOW IMPORTANT IS AUDIO-COMPONENT COMPONENT GOVERNMENT AND INCOMPONENT COMPONENT AND INCOMPONENT AND INCOMPONEN

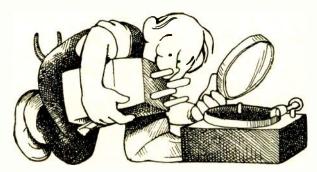
Julian Hirsch examines some of the obscure factors that affect just how well the separate units of your hi-fi system will work together



TEBSTER defines compatible as "capable of coexisting in harmony." The combination of words rather pleases me, because the kind of compatibility I am about to examine has a great deal to do with harmony—of the musical variety. In short, non-compatible audio equipment produces non-harmonious sound; it generates harmonic and unharmonic distortions and a variety of other nasty sounds.

The various parts of your component audio system, as you may perhaps have discovered by yourself, can be mixed—within certain limits—but they must be matched as well. From the phono cartridge at one end of the reproduction chain to the speaker

at the other there are a number of "interfaces," interactions, or interconnections between the component links, each of which offers an opportunity for the signal to be adversely affected if the two components are not properly matched at that point. Let us examine what these interfaces are, what can go wrong at each of them, and what should be done to avoid possible trouble. We will begin at the beginning, with the phono cartridge, and address ourselves to the first interface: that between phono cartridge and tone arm. (We will not be concerned in this examination with a component's actual performance, except as it affects the proper operation of other parts of the system.)



Phono Cartridge/Tone Arm

Although these two components are often bought separately, they act as a unit and must be considered as such. The function of the tone arm is to support the cartridge in the correct physical attitude in respect to the record surface, guiding it as its stylus traces the microscopic gyrations of the inward-spiraling record groove. The motion imparted to the stylus (relative to the cartridge/arm system) generates the output voltage—the audio signal itself

- and the arm must *not* respond in any way to the modulations in the record groove; such response is the business of the stylus only.

And just here is our first potential mismatch—the mechanical resonance established by the compliance (springiness) of the stylus assembly within the cartridge and the total effective mass of the arm-and-cartridge combination. This resonance occurs at a very low frequency-usually under 20 Hz. At frequencies far below arm-mass/stylus-compliance resonance, the entire arm follows the stylus movement. When this happens, there is little or no relative movement between stylus and cartridge body, and therefore no output signal generated. At the resonant frequency, however, both the stylus and the arm move with a greatly exaggerated amplitude. If the pickup resonance is excited by the record, there is a large subsonic output voltage from the cartridge. This need not, in itself, cause any problems, since it can (and usually will) be filtered out by the amplifier circuits. However, the stylus deflection may be so large that it exceeds its linear range, and this causes intermodulation distortion and mistracking of the recorded signals in the groove. In

severe cases, the vibration at resonance may even exceed the force holding the pickup in contact with the record, and groove skipping will result.

Since the stylus almost never encounters recorded signals below 20 Hz (or even 30 Hz), one might wonder what could trigger the arm's resonance; record warps, which are present to some degree on most commercial pressings, are responsible. Oddly enough, the *obvious* warps, such as the simple "saddle" warp that causes a once-per-revolution up-down pickup movement, are not a major troublemaker, for their 0.5-Hz warp rate (at 33½ rpm) is far removed from the tone arm's resonant frequency. "Pinch warp," however, which resembles an abrupt "jog" in the disc surface, appears to the tone arm as a transient signal with a frequency between 2 and 10 Hz, with the most severe instances likely to be at about 4 or 5 Hz.

If a tone arm/cartridge combination with a 5-Hz resonance is used with a record with a 5-Hz warp frequency, mistracking is almost unavoidable. Moving the resonance below 5 Hz might solve the pinch-warp tracking problem, but it would also cause mistracking of the gentle saddle warps or response to the not unusual defect of off-center spindle hole. If the resonance is moved above 5 Hz, one can be reasonably sure of tracking almost any "normally" warped record-except that care must be exercised to keep the tone-arm/cartridge resonance below the lowest musical frequencies on the disc if the recorded material is to be reproduced at the proper level and without mistracking. Though the exact resonant frequency is not critical, it is generally agreed that 10 Hz is about optimum from the standpoint of tracking recorded program material with a minimum response to record warps. A range of 7 to 15 Hz could be considered acceptable.

Now how can the buyer select his tone-arm/cartridge combination for an optimum resonant frequency? In most cases he probably can't, but it is not too difficult to avoid really serious problems. A lower resonant frequency results from an increase in effective arm mass, an increase in cartridge compliance, or both. There is little point in attempting to calculate the resonance of any particular combination, however, since few record-player manufacturers specify tone-arm mass, and cartridge vertical-compliance ratings are notoriously imprecise.

But, as a rough guide to typical values in today's components, a cartridge designed to track at 1 gram will usually have a compliance between 15 and 60 micro-centimeters per dyne (usually written 15×10^{-6} cm/dyne). A good tone arm (including a typical cartridge) may have an effective mass somewhere between 14 and 30 grams. In extreme cases, combinations of these components could resonate at frequencies of less than 4 Hz or as high as 11 Hz. Obviously, a very high-compliance cartridge should be used only in a low-mass arm to keep its resonance safely above that lower limit. At the other extreme, a stiff (low-compliance) cartridge should not be used in a very light arm. Fortunately, this is an unlikely combination, since low-mass arms are expensive and low-compliance cartridges are inexpensive. But if it were to occur, the resonance might be moved up into the low audio range, with the attendant risks of acoustic feedback, exaggerated rumble, or loss of low-frequency response.

Finally, we would suggest, if you have a question about the compatibility of any particular cartridge/tone-arm combination, that you contact the manufacturers of both the record-player arm and the cartridge for their opinions.



Phono Cartridge/Preamplifier - I

The phono-input sensitivity of an amplifier or receiver is defined as the smallest input-signal voltage in millivolts (mV) that will drive it to its rated power output with the volume control set at maximum or, with a separate preamplifier, to the rated output voltage. The phonocartridge's rated output is the voltage it will develop (at 1,000 Hz) across a standard load (normally the 47,000 ohms presented by most amplifier phono inputs) when playing a test record with a standard recorded velocity -3.54 centimeters per second is used in our own cartridge tests. Now, 3.54 centimeters per second is a rather moderate recorded level. Some records contain peak signal levels as high as 30 to 40 cm/sec, and optical studies of discs have revealed occasional high-frequency peaks on the order of 80 cm/sec. Considering that a typical goodquality phono cartridge has an output of 1 mV for a 1-cm/sec recorded signal, a phono-preamplifier section or receiver ought to be able to handle-as a minimum-inputs in excess of 40 mV without being driven into overload distortion (clipping).

Another aspect of cartridge/preamplifier compatibility is the "sensitivity" or amplification available through the preamplifier input. The preamplifier section should have gain enough (be sensitive enough) that, with a given cartridge, the amplifier can be driven to its full output on the loudest recorded passages with the volume control well below its maximum setting (and preferably at about the same setting as is used for other program sources, such as a receiver's built-in tuner). Otherwise, hiss and hum present in the amplifying stages preceding the volume control will become obtrusive as the control is turned up to achieve desired loudness.

Satisfactory phono-input sensitivity can be tested for right in the dealer's showroom, using cartridges of known output (the manufacturer's specifications are usually adequate for this purpose). Phono-preamplifier overload is a bit more difficult to judge, since it shows up only on the loudest recorded peaks as an irritating distortion that is present no matter what the volume-control setting. It should not be confused with the distortion generated by a cartridge being operated at too low a tracking force, however. (It should also be noted that many audio shops use separate preamplifiers between their demonstration turntables and the normal preamp inputs. The purpose is a perfectly legitimate one - to avoid the problems generated by the necessarily long leads needed with their complicated in-store switching systems - but it is then impossible to judge preamp overload or sensitivity.)

Almost all good components today have phono-input overload levels higher than 40 mV. Values of 60 to 80 mV are not uncommon, and some can handle more than 200 mV. It would seem that phono overload is perhaps

not really a serious problem. When using a high-quality cartridge (which usually has a low-to-medium output) with most modern amplifiers, this is certainly true. However, if your budget is limited, keep in mind that the low-est-price cartridges in most manufacturers' product lines may have twice the output of their better units, and in the lower-price amplifiers (as well as some highly regarded expensive models of only a few years ago) the phono overload may occur at levels as low as 25 to 30 mV. Such an unfortunate combination could sound highly unsatisfactory, to say the least.

Some amplifying equipment has a hi/lo phono-sensitivity switch on its rear panel to accommodate cartridges with widely different output voltages. On equipment that offers this feature, we suggest starting with the switch in the lowest-sensitivity position - meaning that the volume control will have to be advanced further than with the high-sensitivity setting to achieve the same volume level. If you can achieve a comfortable listening level before the volume control reaches the upper third of its range, and if no hiss or hum is audible when the pickup is raised from the record, this is the amplifier's preferred operating condition with the cartridge being used - which is to say that it offers the best overload margin. If noise is excessive or if the volume control must be advanced to its limit, then the other switch setting should be used. In that case, it is usually safe to assume that the cartridge output will not overload the phono preamplifier. Good modern equipment designed without such a switch (or hi- and low-sensitivity phono jacks) can usually be assumed to be free of potential phono-overload problems.



Phono Cartridge/Preamplifier-II

Almost all magnetic phono cartridges are designed to operate with a specific load resistance (usually 47,000 ohms), and this is therefore provided by every amplifier with a magnetic phono input. The total electrical circuit faced by the cartridge—consisting of its own inductance, the load resistance, and the shunt capacities of both the connecting cables and the amplifier input circuits—plays a vital part in establishing its overall frequency response. (For a discussion of still another relevant factor, see this month's Technical Talk column, page 31.)

The mechanical portions of the phono cartridge—its jewel tip, the stylus cantilever, and the voltage-generating elements—frequently resonate with the record material at the highest audible frequencies or just above them. The electrical circuit usually serves to equalize the high-frequency resonance (which is generally mechanically damped as well) so as to produce the flattest frequency response over the audio bandwidth.

A higher-than-rated load (such as the 100,000 ohms offered as a switch-selected option on some amplifiers) will increase the high-frequency output and brighten the sound, while a lower resistance (25,000 to 30,000 ohms is

provided by some of the amplifiers referred to) will roll off the highs. Although the input resistance is specified, the capacitive portion of the load is ignored by many cartridge and amplifier manufacturers. Some have based their cartridge performance on a "typical" capacitive load such as 250 to 300 picofarads (pF), although this is rarely stated in so many words.

At the other extreme is the case of the CD-4 (four-channel "discrete") cartridges offered by JVC and Audio-Technica. To achieve their 45,000-Hz response, the load capacitance must be reduced to an absolute minimum (preferably 100 pF or less), and CD-4 demodulators are supplied with special low-capacity cables to replace those normally used with record players. These cables are quite short, which can cause installation problems in some cases. The demodulators also present a high load resistance to the cartridge to further enhance its high-frequency response. However, other cartridges, which should be on the market by the time you read this, have a much lower coil inductance and should be able to operate with any normal cable capacitance when playing CD-4 discs.

Although cable capacitance is a relatively noncritical factor (except for CD-4 service) in home music systems, it may be partially responsible for some of the differences heard between a dealer's showroom demonstration and the performance of the same components in your own home. As mentioned above, the audio switching systems used by most audio dealers may require undesirably long cables leading from some of the record players on their shelves. To avoid penalizing some cartridges with excessive cable capacitance, they use small "outboard" R1AA preamplifiers near the record players, connecting their outputs to the AUX inputs of the amplifiers.

This may be the fairest way to compare different speakers or cartridges, but it can sometimes be misleading when comparing amplifiers, since their phono-preamplifier sections are by-passed. The sonic differences attributable to the phono preamplifier are usually minor, but in some cases they can be significant. It would be well to verify that the system you are considering is being operated in the showroom exactly as it will be in your home. For the same reason, when comparing two cartridges, be sure that they are played through the same amplifier and speaker systems. Sometimes the audible difference between two cartridges really results from the amplifier that is being used to compare them.



Turntable/Speaker

Rumble is the audible effect of mechanical vibration (usually from the motor and idler wheel) in a turntable system being interpreted by the phono cartridge as a low-frequency signal in the record groove. Turntables differ widely in the level of their rumble, and in its frequency composition as well. Expensive turntables are naturally likely to have less rumble than cheaper models, although

the law of diminishing returns sets in rapidly above \$150 to \$200. In general, rumble signals are generated at the frequency corresponding to the motor-rotation rate (30 Hz for the 1,800-rpm motors used in almost all automatic turntables and in many single-play models), and at its harmonic frequencies. The idler wheel, which usually has a basic rate of about 4 Hz, also may introduce that frequency and its harmonics. Some turntables use lower-speed motors which operate at 300 to 600 rpm, with corresponding rumble frequencies of 5 to 10 Hz; others use belt drive to avoid the idler-wheel problem entirely; still others combine both methods. At the top of the price scale are direct-drive turntables whose motor armatures turn at the 33½-rpm record speed and (in theory, at least) have little or no rumble at frequencies above a few hertz.

Instead of being a single low-frequency tone, rumble is actually a complex signal whose frequency spectrum may extend from 0.5 Hz to higher than 100 Hz. The characteristics of human hearing and loudspeaker frequency response combine to make the higher rumble frequencies much more audible than the lower ones, even though they are usually considerably weaker. To take this into account, the "unweighted" rumble measurement (which responds equally to all frequencies) is often supplemented or replaced by a "weighted" measurement. This typically attenuates the measured levels at a 6-dB-per-octave rate with decreasing frequency. In other words, a 60-Hz rumble signal would provide twice the reading of a 30-Hz signal of exactly the same strength.

The weighting curve is supposed to account for the relative audibility of different rumble frequencies, and it is reasonably effective for that purpose. However, "inaudible" rumble can have very audible side effects. Suppose, for example, that a defective idler wheel introduces a strong 4-Hz rumble. No speaker can reproduce that frequency, and no person could hear it if it were reproduced. However, some amplifiers have a frequency response extending down to the sub-audible range, and are therefore capable of passing a 4-Hz signal through to the speakers. At such low frequencies, the woofer's cone excursion can be very large, even at a moderate drive level. This is especially true for vented, or ported, speaker systems, in which the woofer cone is virtually unloaded at subsonic frequencies.

The result may be excessive cone movement at the very low rumble frequency. This will be heard in two ways: either as harmonics of the rumble frequency or as modulation of the higher-frequency program material in the woofer's frequency range. Both of these effects are possible even if the speaker has a limited low-bass response. Indeed, it is *more* likely to occur when the woofer can't respond to the usual rumble frequencies.

If the grille cloth of a given speaker is removable, one can easily check for the presence of subsonic rumble. Watch the woofer cone when the pickup is placed on a record with the amplifier set at fairly high volume. There may be a visible back-and-forth movement of the cone that does not correspond to the bass in the program material. The allowable limits of this movement depend on the speaker design, but, in most cases, a peak-to-peak displacement of more than ½ inch can be considered potentially troublesome.

Not all low-frequency disturbances are caused by the turntable mechanism. Record warps can introduce large subsonic signals that are recognizable by their periodicity (once per record revolution). Turntable rumble, on the other hand, is constant throughout the rotation of the record. The effect on the system is the same, whatever the cause

A very desirable feature of some amplifiers is an input filter that rolls off their response below 20 Hz. Although this may offend some sensitive audiophiles, it is the most effective method of treating the problem at minimum cost. "Rumble filters" can do the same thing, but most of them will also remove too much of the low-frequency signals in the program. Amplifier power stages generally have a limited power capability at subsonic frequencies, and can also be overdriven by rumble of this type. It is less common than speaker overload, but it must be considered as a possibility.

All in all, the best way to avoid subsonic rumble problems is to match the quality levels of your components. A low-price turntable should not be used with a de luxe, high-power amplifier and speakers with extended bass response.

A COUSTIC feedback is a common and frequently misdiagnosed compatibility problem. Feedback is heard as a loud rumble or low-frequency "howl" through the speakers when playing a record at high volume levels. It disappears when the pickup is lifted from the record. Its effects can be apparent at much lower listening levels as a "heaviness" or muddy quality in the bass region, plus a general loss of overall "tightness." Feedback can also greatly exaggerate turntable rumble.

Acoustic feedback is the result of a physical vibration of the record-player system by the low-frequency energy from the speakers. The speaker energy may reach the player directly through the air or via the connecting cabinet, floor, or other house structural members. There would be no problem if the record-player assembly did not have a resonance or resonances within the low-frequency range of the speaker. This resonance situation is very complex and unpredictable since a cartridge/arm resonance near the audible range (about 20 Hz, for example) can aggravate the condition, but the turntable and its mounting base may have their own easily triggered resonances. The most successful treatment is preventive: isolate the record-playing components from the speakers, and never place the speakers in the cabinet that houses the record player. This can be-and is-done in massproduced console systems only because the speakers' low-frequency response is deliberately sacrificed and/or special steps have been taken to isolate the turntable assembly and/or speaker systems mechanically from each other.

It may be possible to cure an existing acoustic feedback condition by mounting the turntable on isolating springs or resilient pads. Sometimes adding more mass to the turntable mounting base will move its resonance to a safely low frequency. Many turntables contain their own isolating mounts, making them more or less immune to feedback. But each case is unique, and requires its own cut-and-try solution.

As is the case with rumble, restricting the system's low-frequency response will also cure acoustic feedback. Often a cut-off below 40 Hz will eliminate the feedback problem without significantly affecting program quality. Generally, acoustic feedback occurs only when the speakers can deliver a useful output at frequencies below 35 or 40 Hz, and many (especially smaller, low-price speakers) cannot.



Preamplifier/Accessories

Many system accessories, such as four-channel decoders, equalizers, and tape decks, are designed to be connected to an amplifier or receiver at a point in its circuit before the volume and tone controls—but after the phono-preamplifier section. At that point, the circuit can be interrupted by a switch (TAPE MONITOR) set up so that the returning signal, after going through the accessory, reenters the preamplifier and continues on through the volume and other controls.

From the high-level (tuner, auxiliary, tape, etc.) preamplifier inputs to the tape-monitoring junction there is usually no gain and, therefore, there is normally little likelihood of overloading the accessory or tape-monitor input stage. The signal from the tape-output jack is usually under 1 volt, and all accessories can handle that level with ease. Similarly, the signal returning from the accessory is usually at about the same level, so that the preamplifier stages that follow will not be affected by the insertion of an external unit.

Perhaps the only precaution to be observed when connecting accessories is to avoid unreasonably long lengths of shielded cable. Most preamplifier tape outputs are at an impedance of 10,000 ohms or less (some are as low as 100 ohms). Even at the higher impedance typical of some low-price amplifiers and receivers, up to 20 feet of shielded cable will not significantly attenuate the highest audio frequencies. The low output impedance of the top-grade preamplifiers can feed even longer cables with impunity.

Although it is possible to connect many accessories between the preamplifier output and the power amplifier input (this point is accessible on many integrated amplifiers, as well as all "separate" combinations), it should be done with caution. Some power amplifiers require as much as 2.5 volts input for full power output (even more if they have input-level controls which are not set to maximum), and many preamplifiers can deliver 5 to 10 volts before they clip the output waveform. But most accessories will be severely overdriven if connected to a system at that signal level. Since all accessories designed for connection to the tape-monitor circuits also duplicate those connections (so as to avoid sacrificing the use of a tape recorder), there is no need to risk distortion by interposing any active devices between the preamplifier and the power amplifier.

Almost all amplifiers have high-level inputs (AUX and TUNER) that cannot be overdriven by any normal-level input signal. Even among the exceptions to this rule, we have yet to test one which cannot handle up to 3 volts input, and since no tuner we know of provides a higher output voltage, we feel this does not present a potential source of distortion.

Preamplifier/Power Amplifier

If your separate preamplifier and power amplifier are from the same manufacturer and are of comparable quality, there will be no problems with their electrical—or physical—compatibility. Even if they are from different manufacturers, most modern preamplifiers and power amplifiers will work well together. One possible problem source, however, is the low input impedance of solid-state power amplifiers as compared to the 250,000-ohm or higher impedance of vacuum-tube amplifiers. But as long as the load (the power-amplifier input impedance) is at least ten times the source impedance (the preamplifier output impedance), you can expect to obtain satisfactory performance.

Today's solid-state power amplifiers rarely have an input impedance higher than 100,000 ohms, and on some high-power amplifiers it is as low as 10,000 ohms. A preamp that can't drive such an impedance may not be able to deliver its rated output to such an amplifier without distortion or attenuation of the lowest audio frequencies. And when a power amplifier has an unusually low input impedance, the output response of a conventional solid-state preamp may be affected in the lowest audible range, if only by a couple of decibels. Although this loss is usually audibly insignificant, it has probably been responsible for some of the differences claimed to have been heard between competitive power amplifiers whose frequency response actually extended well below (and above) the audible range. The real difference, of course, was in the input impedance of the two amplifiers rather than in their frequency response or other more esoteric characteristics that for some reason were not susceptible to measurement.

Response loss can be a more serious problem, however, when driving a solid-state power amplifier from a tube-type preamplifier. The loss of bass from such a pairing can be severe. Possible cures, in order of their desirability, are:

- I. change to a solid-state preamplifier,
- 2. use a power amplifier with a higher input impedance,
- 3. increase the size of the preamplifier's output capacitors (this is rarely practical).

A more serious incompatibility is the transient output surge of a tube preamplifier during warm-up. Tube-type power amplifiers, which had about the same "warm-up" time as the preamplifiers, did not allow this surge to reach the speakers, and its presence was usually unsuspected by the user. However, most solid-state power amplifiers are fully "on" within a second or two after power is applied, and they are driven to saturation by the preamplifier surge. Particularly when the speaker outputs are direct-coupled, as many are today, a huge signal may be applied to the speakers. At the very least, the result is an unpleasant thump; if the amplifier is of the "super-power" variety, the risk of damaging the speaker is very high. However, this problem can avoided by turning the preamplifier on before the power amplifier. The convenience of running the power amplifier from one of the preamp's switched a.c. outlets must then, of course, be sacrificed.

Some amplifiers have automatic protective circuits which will shut them down during the surge; on others, the speaker fuses may blow out. Either result is obviously undesirable. A few amplifiers have turn-on time delays

designed to eliminate a similar effect (though of much lesser degree) from the associated solid-state preamplifier. The delay is rarely more than a few seconds, and may therefore offer no protection against the starting surge of a vacuum-tube preamp.

We strongly recommend that vacuum-tube preamplifiers, no matter how highly regarded, never be used with solid-state power amplifiers. A good solid-state preamp is probably cheaper than either a new power amplifier or a pair of speakers, and it offers many other advantages in flexibility and improved performance over the best vacuum-tube preamps. Those who hear "better sound" from tube preamps and who wish therefore to mate them with high-power transistor power amplifiers should know the risks they run—and perhaps they should investigate the possibility that the "poorer" sound they hear from solid-state preamps may result from one of the kinds of incompatibility noted above. And finally, I see no reason why a solid-state preamplifier could not be used with a tube power amplifier.



Tape Recorder/Tape

There are normally no interface problems between the tape deck and the amplifier. All recorders return a playback signal at approximately the same level as the recorded program (or can be adjusted to do so), and have input-gain controls with sufficient range to accommodate any input signal from an amplifier's tape outputs (which can vary from less than 100 mV to more than 1 volt). The only possible trouble would occur when taping with an old recorder (one, say, more than six years old) and/or an FM tuner of similar or earlier vintage. Some early stereo tuners had considerable 19-kHz and 38-kHz content in their audio outputs (from the stereo FM pilot tone), which in certain tape decks could "beat" (combine and form a new frequency) with the bias oscillator in the recorder to produce "birdies" or whistles on the tape. This is unlikely to occur when either or both components are of recent manufacture, since filtering circuits are incorporated in almost all current designs.

More significant in respect to compatibility is the relationship between the tape used and the recorder. Each tape-oxide formulation (the mixture of microscopic magnetic particles that coats the plastic tape-base material) requires a particular combination of recording-bias level, signal level, and equalization if it is to deliver its optimum performance. These parameters are adjusted by the tape-recorder manufacturer, either for a specific tape or for a general *class* of tapes (usually identified as "standard," "high output," etc.). Frequently, the recorder manufacturer does not name specific brands and types of tape, leaving the user to guess or determine by experiment which tape his machine has been "set up" for.

In the case of open-reel recorders, these adjustments are relatively noncritical, at least for the purposes of most

home recordists. The most obvious difference in sound between a "standard" tape and one of the premium types is the slightly better high-frequency response of the latter, but in the audible frequency range these differences are slight (except possibly when operating at the lowest tape speeds). Still, it is advisable, in the absence of specific recommendations by the recorder manufacturer, to try several types of tape and standardize on the one that seems less sensitive to overload distortion and provides the smoothest and most extended frequency response. Avoid "bargain" or unbranded tapes, which can be rejects of a regular tape brand with, in addition to uncertain magnetic properties, surface imperfections or loose coatings that might clog the recorder's heads or internal mechanisms.

Cassette tapes have the same general compatibility requirements, but with some very important differences. Unlike the case with open-reel machines, bias and equalization in a cassette recorder must be critically matched to the tape used; even a *slight* misadjustment can drastically affect the high-frequency response as well as the distortion and signal-to-noise ratio. This adjustment is almost never accessible to the user, and few cassette-recorder manufacturers identify suitable tapes by brand name.

If the instruction manual for your cassette machine does recommend specific tape brands, use them (or others of comparable performance). Otherwise, we would suggest trying several kinds of tape and judging for yourself which are most suitable. While two makes of high-performance tape may sound very much alike (and would be equally suitable for your needs), the duller high-frequency response and irregular output level of some of the cheaper brands will be immediately audible.



Tone Controls/Speaker Character

All amplifiers have bass and treble tone controls, and most will do an acceptable job of altering overall tonal balance to suit individual taste or the acoustical characteristics of the listening room. However, few are of any value for equalizing loudspeaker response. Several speaker manufacturers have designed equalizers for their speaker systems, and these generally boost the lows and highs of the loudspeaker. The response curves of these equalizers, though they differ from each other, have one thing in common: they cannot be approximated by the usual tone controls on any standard amplifier.

Typical loudspeaker-system frequency-response deficiencies include:

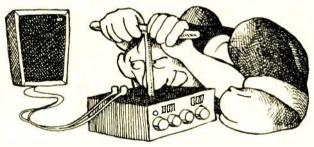
- 1. Gradual roll-off of high-frequency output, usually beginning at some point between 8,000 and 12,000 Hz.
- 2. Smooth, but fairly rapid, loss of response below some bass frequency, usually between 40 and 100 Hz.
- 3. A broad hump or dip (or several) in the response curve, occurring at any frequency in the audible range.

4. Relatively narrow-band peaks or dips, perhaps less than one-third of an octave in width, usually in the mid-range between 400 and 2,000 Hz.

Each of these frequency aberrations imparts its own coloration to the sound, and its reduction or elimination can make a significant improvement in listening quality. Sometimes the resulting improvement is rather subtle (especially in the deep bass), but when it can be achieved, it is audibly worthwhile.

There are some amplifier tone controls which can provide useful equalization at the lowest and highest frequencies (cases 1 and 2 above). This requires that their "turnover" frequencies (the point at which the control starts to be effective) be located near the ends of the musical spectrum (200 Hz or below, 8,000 Hz and above), rather than the usual 600 to 800 Hz and 1,000 to 2,000 Hz points. This capability is found in a few top-price amplifiers.

A more effective arrangement can adjust for speaker problems 1, 2, and 3. This is the "graphic equalizer," which has five or more controls providing boost or cut at specific frequencies. Graphic equalizers are incorporated in some amplifiers and receivers and are also available from several manufacturers as add-on accessories. The narrow-band response irregularities are beyond the corrective capabilities of any practicable home equalizer, however—except, in some cases, the very expensive one-third-octave variety. If your speakers have narrow-band problems, and if they bother you, the only solution is to change speakers.



Amplifier Power/Speaker Rating

Few aspects of audio-system planning cause as much confusion as the selection of speakers and amplifiers whose power ratings are compatible with each other as well as with the listening requirements of the purchaser. None of this has anything to do directly with how the speakers sound, of course.

First of all, there are no hard-and-fast rules in the matching of speaker and amplifier. There are as many solutions as there are installations, for no two are alike. Luckily, even rather large "errors" need not be disastrous to the speakers or to your listening sensibilities.

There are actually several distinct questions to be answered:

- 1. How much sound-pressure level (SPL) is needed at the listener's ear to provide the desired sensation of loudness realism with the preferred program material?
- 2. Can a given speaker (which presumably meets other standards of sound quality) produce that level in the listening room without excessive distortion—or damage to the speaker?
- 3. Can the amplifier supply enough electrical power to generate the desired acoustic level for a given set of speakers?
- 4. At the amplifier's maximum power (if this exceeds the requirement of item 3), is there a risk of damaging the speaker?

Unfortunately, the data published by most speaker manufacturers will not provide direct answers to most of these questions. This is not the manufacturer's fault, for there are simply too many factors involved, all of them beyond his knowledge or control. For example, the sound-pressure level in a given room, for any selected speaker and electrical drive power, depends on the room acoustics, which are determined by room dimensions, shape, and furnishings, by speaker placement and listening location, and many other factors. From time to time, guidelines have been published to assist the buyer in choosing an amplifier-power rating, but these are so broad and general as to be virtually useless. One's personal listening habits may well be more important than all the above-mentioned factors. Between a backgroundmusic level and realistic reproduction of, say, rock music, there can be a volume range of more than 30 dB, which translates to an amplifier power ratio of 1,000! Quite possibly, the question of whether the amplifier used should be rated at 1 watt or 1,000 watts is more meaningful than whether it should be 40 watts or 60 watts.

Many speaker manufacturers publish a maximum and minimum "power rating" for their products. The minimum recommended amplifier power rating (in continuous watts per channel) means that the manufacturer believes that an amplifier with at least that much power can drive his speaker to comfortable levels in a "typical" listening room. The maximum power rating of a speaker would seem to be unambiguous, but it is rarely stated whether it is based on excessive distortion or on actual damage to the speaker.

Take a typical case: a small bookshelf speaker might carry a minimum rating of 10 watts, and a maximum rating of 50 watts. One could infer from this that practically any contemporary receiver or amplifier would be satisfactory for use with this speaker, and this is probably true. However, considering the substantial investment represented by a good stereo receiver, we would suggest choosing near the upper end of the power range if at all possible. This leaves the path clear to upgrading the system with another set of speakers—possibly less efficient—without making the receiver obsolete.

For reasons of economics, aesthetics, or even sheer ignorance, an attempt is sometimes made to fill a large, well-furnished room with a pair of inexpensive little speakers driven by a low-power amplifier. Then, when a more powerful amplifier is brought in to provide adequate listening levels for the room, distorted sound and (quite possibly) damaged speakers are the almost certain result. Does this mean that small speakers cannot be used in large rooms? Not necessarily. If in doubt, let price be your (rough) guide: a pair of good \$250 speakers may be only slightly (if at all) larger than a pair of good \$100 speakers, but they will almost certainly be able to deliver a higher volume of undistorted sound. In addition to this, a compact speaker with extended bass response will be less efficient than either a larger system with the same response or a system of similar size with restricted lowfrequency performance. Lower efficiency means more electrical power required for a given SPL, which explains why the better acoustic-suspension systems often require 50 watts or more amplifier power.

Because the speaker ultimately determines the total sound of the system, its performance should be the *primary* deciding factor. Once the speaker has been select-

ed, it is easy to choose an amplifier with enough power. And there is no reason why an amplifier whose maximum power rating exceeds that of the speaker cannot be used. The availability of very high amplifier power when it is required can greatly enhance realistic reproduction of music, even at rather modest average levels. However, when the available amplifier power exceeds the speaker rating, the speaker must be protected by a fuse—or other device—from accidental overloads.

A number of speaker systems have built-in protective fuses which will open the circuit before damage occurs. However, most tweeters will be burned out if fed continuous high-frequency signals even at a power level below the system's overall power rating. This is true even though they can handle the high-frequency energy in music at the full power level. If your speaker does not have fuses, they can be added externally. But don't choose your fuse rating on the basis of a simple Ohm's Law calculation. A 50-watt, 8-ohm speaker supposedly requires 2.5 amperes at full power, and one might be tempted to use a 2-ampere fuse and feel it is protected. Actually, this is only a "half-safe" condition, since the speaker impedance probably varies widely with frequency and some of the drivers might require a lower-amperage fuse for adequate protection. Some speaker manufacturers specify very fast-acting fuses, while others prefer the slowblow type. Contact the speaker manufacturer for his specific recommendation.



Amplifier Damping/Speakers

The damping factor (DF) of an amplifier is the ratio of the rated load impedance (usually 8 ohms) to its internal impedance. It is a measure of the "regulation" of the amplifier—that is, how much the amplifier's outputsignal voltage (all other factors being held constant) will vary with changes in the impedance of the load (speaker). Since the amplifier output impedance exerts some measure of control over the speaker's voice-coil movement (especially in the vicinity of the woofer bass resonance), it has been considered by many to be an important factor in providing a "tight" bass response, without excessive hangover or other undesirable transient effects.

Up to a point, this is true. A measurable (and audible) difference in the low-frequency response of many speakers can be observed when one increases the DF from 1 to perhaps 10. On the theory that, if a little is good, a lot must be better, some people have become convinced that a very high DF (it is often over 100, and sometimes as high as 1,000 on modern amplifiers) offers real advantages in listening quality.

To see why this *cannot* be true, one has only to look at the equivalent electrical circuit of the amplifier output and speaker. To start with, we have the woofer voice coil's d. c. resistance (usually 25 to 50 per cent of the rated voice-coil impedance). Then there are other resistances, including those of the crossover network and the connecting wires to the amplifier. At the amplifier itself we have a "source" impedance which relates to the damping factor. If the amplifier's DF is 1, then, with an 8-ohm speaker, the source impedance is 8 ohms. (With a DF of 10, the source impedance is 0.8 ohm, and with a DF of 1,000, source impedance is 0.008 ohm.)

The speaker voice-coil "sees" and is damped by the sum of all the resistances in this circuit. For a typical 8-ohm speaker connected to a typical low-price amplifier with a DF of 10, the total resistance (source impedance plus voice-coil, crossover, and connecting-wire resistances) works out to 2.9 ohms. If we switch to an amplifier with a DF of 1,000, the load seen by the speaker is "improved" from 2.9 ohms to 2.108 ohms—hardly a substantial gain.

The conclusion is inescapable: damping factor per se is of almost no importance as long as it is more than about 10. Amplifiers with much higher DF values may sound better, but only because they generally have much higher power and large amounts of negative feedback (which only incidentally results in a very high damping factor).

Summary

Although a book might very easily be written on the subject, we have touched in these pages on enough of the key points of system planning and compatibility that one central fact clearly emerges: common sense is still the most important and useful aid when it comes to matching audio components successfully. A \$1,000 tuner is wasted on a \$100 amplifier or on a pair of \$50 speakers. A fine \$400 amplifier can only bring out the worst in a pair of low-cost "Brand X" speakers or a \$100 AM/FM stereo tuner. A \$200 receiver might sound perfectly fine with those same \$50 speakers, but it could be a nasty, distorted failure with a pair of fine \$500 speaker systems. And to use a \$100 phono cartridge in a \$50 record player is equivalent to installing a \$200 set of radial tires on a 10-year-old heap.

Thus, aside from the more arcane matters discussed above-and they do have their effectsthere is really no great difficulty about matching your audio components to each other for best performance. The manufacturing companies are interested in having their products work properly not only with other units of their manufacture, but with those—as many as possible—made by others as well. Further, standardization within the audio industry, though not total, is quite impressive, given the large number of companies involved. Thus, common sense, reasonable caution, and a few simple showroom tests are all that is required to assure compatibility, to enable you to realize in your home the fidelity potential inherent in today's component stereo (and quadraphonic) equipment.



INSTALLATION OF THE MONTH

STACKED STEREO



This craftsman's approach to an efficient, beautiful home installation has the clean simplicity of modern building materials and design and a well-chosen selection of medium-price stereo equipment. Lance Fredericks of Jackson Heights, N.Y., designed and created the wall unit of smoked and clear Plexiglas and oiled black walnut pictured above. The vertical complex has two hidden features that enhance its trim, uncluttered appearance. First, all connecting cables are concealed within a U-shaped channel that runs the length of the central walnut upright. Second, the storage facilities for program material—containing two tiers of records and a roll-out drawer for forty-two cassettes—are also out of sight behind a panel of smoky Plexiglas.

All components in the system are readily accessible and removable. At top center, under a rounded cover of smoky Plexiglas, is a Heathkit AR-19 stereo receiver that can be slid out when necessary. Directly below it, cradled in a similar but smaller niche, is a Teac AN-60 Dolby unit. A Teac 220 stereo cassette deck (left) and a

Dual 1214 turntable equipped with a Shure M75E cartridge (right) rest on shelves one level below. Two storage units form the base of the installation. The larger cabinet at left holds the records and cassettes, and the smaller compartment contains such accessories as a set of Koss Pro-4AA stereo headphones, a Dust Bug, and blank cassettes. The speaker below is one of a pair of Wharfedale W45's, and is free-standing for ease in removal or change of position. A pair of smaller Wharfedale W25 speakers located in the basement playroom complete the system's components.

Mr. Fredericks has a Bachelor of Fine Arts degree from the School of American Craftsmen at the Rochester Institute of Technology, and is currently an instructor of fine arts at the Lexington School for the Deaf in Jackson Heights. The unit was built for his father, Jack Fredericks, a daytime operations supervisor at a local TV station in New Hartford, N.Y. Popular and folk music make up the record and tape library of this contemporary stereo system.

— Paulette Weiss



GIRACIE MIEILZIA BUMIBIRY

"I don't think singers are serious enough about their craft."

By Speight Jenkins

"Some opera stars are just singers, others are actresses. but Grace is a presence," said conductor James Levine a few months ago, and his words came forcefully to mind as I watched Grace Melzia Bumbry walk into the living room of her New York apartment. A full-length purple hostess gown setting off her lustrous dark-brown skin, her hair in a modified Afro, and her eyes sparkling, Miss Bumbry carried with her the aura of the stage.

When we sat down to talk, the presence on a nearby table of five or six German, English, and French books about Salome led the discussion naturally to the role in which Miss Bumbry is currently appearing in New York. Although she has performed the title role in Richard Strauss' Salome in England, she is singing it for the first time at the Metropolitan Opera this season (she is scheduled for a broadcast performance on January 5), and her Dance of the Seven Veils has been widely discussed. "The big thing about the dance," she said, her expressive hands giving substance to her words, "is to be sure that what you do suits you. I brought my own choreographer, Romaine Grigorova, to the Met to work with me on the right dance for the Met's sets. As for my finishing in a bikini-when I first did the role in London, I told Maestro Solti I was worried about being too heavy. He said, 'Fat? Incredible. You'll look great in a bikini.' I said, 'After the rehearsal today, I'll put it on. Come to my dressing room. and you and I will decide if I look good enough to wear it.' He whooped. 'Many a dressing room invitation I've had,' he said, 'but never to pass on a bathing suit.'

Though Miss Bumbry has had many premieres at the Met-new productions of Carmen, Orfeo ed Euridice, Il Trovatore, and Cavalleria Rusticana—this Salome is something special: her first German role in New York, for one thing. Are her parents coming? "My mother is, but not my father. He doesn't like to see me in such a sexy role. As a matter of fact, even Carmen is too sexy for him, and Salome is out of the question! But Mother loves whatever I do. She's experiencing the singing career she might have had—if she had been allowed to study—through mine. That's why I've put 'Melzia' into my name; it's her maiden name, and it makes her really happy."

Miss Bumbry was born thirty-six years ago in St. Louis. She began studying singing at eleven, and in 1954 she

■ Miss Bumbry with her teacher, Lotte Lehmann, in the latter's home in Santa Barbara.

was a winner on the television show Arthur Godfrey's Talent Scouts with Princess Eboli's aria "O don fatale" from Don Carlo. A short time at Boston University was followed by a year at Northwestern, where she met Lotte Lehmann. Inspired by Mme. Lehmann's teaching abilities, Miss Bumbry, at that time a mezzo-soprano, transferred to the Music Academy of the West in Santa Barbara, California, for three and a half years of intensive study and coaching with Lehmann. In 1958 she entered the Met auditions, winning \$1,000 as a finalist (along with Martina Arroyo), and, after some oratorio work in London and Paris, she appeared on the stage of the Paris Opéra in March 1961 as Carmen ("For some weird reason, I've always remembered it was St. Patrick's Day; what can we make of that?").

Next came three years at the Basel Opera. She loves Switzerland, which she still calls home ("more relaxed than New York - a great place to study"), and there she was able to sing all her mezzo repertoire in the original languages, a peculiarity of trilingual Switzerland and one not to be found, for instance, in a German theater of similar size. While she was in Basel, conductor Wolfgang Sawallisch auditioned her and, liking the sound of her upper voice, recommended her to Wieland Wagner. As a result she was cast as Venus in Tannhäuser at the Bayreuth Festival, and the stormy publicity surrounding a black singer's performing at Bayreuth gave her notices in Time, Newsweek, and most European magazines. Soon afterward, she was invited to the White House to sing for the Kennedys. "I really loved the President, and I was so excited to be at the White House. Then I found out I had to eat dinner before I sang, which was completely impossible for me. Now, it would be great. I eat before and during a performance, but then - oh, wow!"

It took three more years to get to the Met-years during which she sang a wildly successful Carmen with Karajan in Salzburg and her first (equally successful) Lady Macbeth in the same festival. Since then she has sung in most of the major opera houses of the world. Her first recording came in the late Fifties, in Carmen Jones ("I was a fool; I agreed to a flat-fee pay-off, and they're still making money on that record"). Her first major recording was Messiah, with Joan Sutherland, in 1961; two Aïda's, the Bayreuth Tannhäuser, Orfeo, Carmen, Il Trovatore, and several single discs have followed.

Today, Miss Bumbry thinks recording is more fun than when she began. "They listen to me now," she said, her voice breaking into laughter. "They let me repeat things, and they work with me to get the sound that I have in my ears. We do a test run, and if I don't like the way the machines are reproducing my voice, the engineers change a dial here or there until we get the sound I hear in my mind. Sometimes, of course, if you fluff a note, you can repeat forever, and the right one will not come. And the general feel of such piecework is not easy. You start an aria with one feeling; after a few bars, you've changed your whole attitude. Then, if you have to go back and redo part of it, it's terribly difficult to recapture the emotion that will fit what's already there. You're a fish out of water.

"One great thing about recording is doing parts you are not physically able to do in the opera house. For instance, I would love to do the *Walküre* Brünnhilde on records, but I don't see myself as a Brünnhilde onstage. I would also like to do *Norma*, and," she paused with a finger

raised, "I do want to do that onstage at some point. However, if I find that I can't sustain it for an evening, then I would still like to put it on records. Is this cheating the audience? I don't think so. They ought to have the right to hear a singer they like do a role under the best of conditions—and in some situations a record is it."

Miss Bumbry reacts differently to different studios. "The Salle Wagram in Paris is great; then there's that Munich *Brauthaus* or something like that (I can never remember the name even when I'm working in it). But wherever you sing in a recording studio, the feeling is impersonal—like rehearsing at the Met with the curtain open. So you have to tunnel your psyche toward the microphone and think perfection. Many times you can't show the emotion on a recording that you would onstage. It would sound silly instead of just right."

Only a few of her records have really satisfied her: the Angel recording of Orfeo, a solo disc for Deutsche Grammophon (now deleted) which included two Macbeth arias and a "Ritorna vincitor," and an Angel recital album of Schubert and Brahms lieder. For the future she has what she will only call "a challenging project" with a big record company, but she's more specific about her film plans. Nothing has happened in that aspect of her career since Carmen with Karajan; now she is going for a straight dramatic role. The story comes from Wide Sargasso Sea by Jean Rhys, the filming company is English, and the cameras are set to roll next spring.

Operatically, Grace Melzia Bumbry is now a soprano, with a *Gioconda* in New Jersey, two *Aïda*'s in Germany, and a *Jenufa* at La Scala scheduled in this season alone. Ever since her performances as Lady Macbeth in 1964, she has been edging up the scale, and with *Salome* in London in 1970 and *Tosca* at the Met in 1971 she proclaimed the change definite. Though she still holds on to Amneris in *Aïda* and Eboli, two of the highest mezzo roles, the color of her voice—her high notes, the whole *sound* of the singer—is that of a soprano. And recently in Munich she did a Birgit Nilsson trick: singing both Elisabeth and Venus in one *Tannhäuser*.

ALKING about German opera got us back to Salome again, a subject very much on her mind at this time. "My Salome is different, but I feel strongly about presenting my interpretation within the physical confines of the available production. I don't think singers are serious enough about their craft, and opera has gone down in audience response because singers just do their thing without thinking of where they are, what they're working in, or why they're doing it."

Has an audience ever meant something special to her? She paused for a long time, looking out the window onto Central Park far below. "Yes. I would venture to say the audience at the Macbeth last June at the Met. I mean specifically their reaction to my mishap with the D-flat [at the end of the Sleepwalking Scene]. I wouldn't have expected them to stand up and cheer, and they didn't. But afterwards, when the reviews came in and all the critics harped on it, the letters poured in from people telling me how much they liked my performance, how satisfying I had been, and how unimportant one note is." Squaring around to look right at me, her presence coming on strong, she said, "I'm after audience involvement. Had I sung the note beautifully, I would never have found out the personal feelings of people. Now I can hardly wait to get out there and sing for that Met audience again."

Expert advice for CLASSICAL ROOKIES

Compiled by Roy Hemming

ne night during intermission at a New York Philharmonic concert, an acquaintance asked me a question. "My seventeen-year-old-nephew just got a new stereo player," he began, "and I'd like to buy him four or five classical records for Christmas—just to expose him to something besides the rock he's grown up with. Since you work with kids that age, what would you recommend I start him with?"

It seemed a simple enough request, and I answered, "I'll mail you a list tomorrow." His reference to my working "with kids that age" meant my job as an editor and writer for the current-affairs magazines published by Scholastic Magazines for American high school students. One small part of that job had been to write a weekly record-review column for the past dozen years. So I started thinking back to some of the records I'd reviewed recently. Then I thought back further-to the first records I'd spent my own money to buy when I was a teenager: Ernest Ansermet's recording of Stravinsky's Petrouchka, a Tchaikovsky piano concerto recorded by Vladimir Horowitz and Arturo Toscanini, a Wagner album with Helen Traubel - and a Duke Ellington album which I still stubbornly insist on considering a "classic."

But when you have a possibly unspoiled, unprejudiced beginner to deal with, where *should* you begin? Pretty soon I'd torn up about five attempts to make a list, and had just about decided that the only solution was to suggest that he get a copy of Martin Bookspan's Basic Repertoire from *Stereo Review* and pick any four or five recordings from that list.

The next day one of my editorial assignments was an interview with the pianist Alexis Weissenberg. About halfway through the interview, I suddenly heard myself asking an unscheduled question: "Mr. Weissenberg, if a young man or woman—let's say a high school or college student—should come up to you and say, 'I don't know much about classical music, but I've got enough money to go out and buy four or five records—what should I buy?' How would you answer, and why?"

Intrigued by the question, Weissenberg gave an immediate answer—completely at variance with the approach I had been considering, but certainly valid. Instead of recommending specific works by specific composers, he indicated that "the right performer" was most important in reaching today's young people.

Later I asked the same question in interviews with Pierre Boulez, Anna Moffo, and Van Cliburn. Their answers were so completely different that I decided to keep on asking as many different musicians as I could—conductors, pianists, violinists, singers, composers, and so on. Fifty of the answers I've taped over the past several years form part of a book I have titled DISCovering Music, to be published this spring by Four Winds Press. On the following pages are a group of excerpts from that section of the book. Although I originally asked the question with high school and college students in mind, the answers can, of course, be enlightening to newcomers of any age who would like to know where to begin with classical music.



HILDE SOMERAustria-born pianist, now living in the U.S.

• I would start off with modern music, because I think music that has a beat or dissonance or folk roots will be easier for today's young people to relate to. They've been weaned on rock and folk and country music. My first suggestion, therefore, would be a recording by Copland-either his El Salón México or Lincoln Portrait, I think people who don't know too much about music may relate better if there's something else that involves them-like the spoken word in the Lincoln Portrait or the Mexican folk tune in El Salón México. Next, I would recommend Stravinsky's Rite of Spring, for the rhythm. I would suggest the Boulez recording of this work. Then, Villa-Lobos' Bachianas Brasileiras No. 5 for soprano and cellospreferably the Victoria de los Angeles recording with the composer conducting, which also includes his Bachianas Nos. 2, 6, and 9 on the same recording. They are all very folk-like and very interesting. Then I'd suggest the recording called The Well-Tempered Synthesizer. I think it's fascinating to hear a

modern electronic instrument like the Moog synthesizer combined with the music of Bach, Handel, Monteverdi, and others as it is on that record. It will introduce young people to some great old music in an interesting contemporary way. Then I think we should include a basic Beethoven symphony: the Fifth, as recorded by Bernstein and the New York Philharmonic. Lastly, I think Scriabin is a good choice for today's young people. He's all rainbows. He was for brotherhood and eternal peace long ago. He saw lights with his music and wanted lights with his music, but seventy years ago technology was not advanced enough to fulfill his dream. If he lived today, he'd be one of the heroes of the younger generation. I am particularly fond of his Fourth Piano Sonata. It's one of his most beautiful pieces and, I would say, a bridge between Romantic music and modern music.



LEONTYNE PRICE American soprano

• I think one of the first should be by Mozart, one of the early symphonies perhaps. Mozart is so wonderfully easy to listen to, and so uncomplicated. Then, to broaden his horizon and point him toward opera, I just might pick something by Verdi. And you just can't beat Aida. Even if someone can't see an opera, I think Aida is one of the two operas that are easiest to hear on

records. Carmen is the other. But I think Aïda would have a more interesting dramatic intensity for a beginner. You can always hum Verdi's tunes, and that's a good start. Then I'd suggest something by Beethoven. His is a pure, classical line-something like Mozart, yet with a little more drama to it. I remember very vividly the first time I heard Beethoven's Ninth Symphony as a youngster, particularly the choral finale. So I would include the Beethoven Ninth. Then, something Romantic. I'll stick with my favorite: the Tchaikovsky First Piano Concerto. It's not only listenable, but also rather poetic—a lovely, lovely work. After well, I like Bach very much. But I think Bach might be a little too complicated for a newcomer, especially a young one. I would rather suggest works that not only would make a lasting impression, but would leave a desire to hear more. Therefore I can't leave out Puccini. I really think Madame Butterfly should be in there. Puccini is so beautiful and so very exciting.



ALEXIS WEISSENBERG
Bulgaria-born, U.S.-educated pianist

 I would try to get not so much certain composers as the right performers. I think we must consider the image of certain artists like Van Cliburn. who is virtually a national hero, or Leonard Bernstein, who has done such phenomenal work on TV, particularly for young people. I think, therefore, that whatever symphony you buy performed by Bernstein is more important than who the composer is. It brings people much closer to him because they've seen him. They may listen more carefully and more attentively to a recording of his than to the same symphony under any other conductor. It's unbelievable how much you can bring music up to peopleand I don't say down to people!-if they know something about the artist producing it. [I'd include] Artur Rubinstein, of course, and Vladimir Horowitz. Since they've both had TV specials, I think many people are getting to know who they are and what they mean. I would stress also that young people should not buy five or six or even three long recordings. I think young people today are nervous. They can easily become inattentive, and can rarely concentrate on something unfamiliar that lasts more than thirty minutes. So they should try short pieces first-such as Chopin Nocturnes by Rubinstein, for example, or maybe some ballet music, before the big symphonies. I think it is wrong to try the big, fat, solid pieces first, because then they start hating music rather than liking it.

BERNARD HAITINK

Dutch conductor; music director of the Amsterdam Concertgebouw, and principal conductor of the London Philharmonic

 A beginner should try to choose an important work from each major period of music. For example, one of the works of Bach, one of Mozart, one of Mahler, one of Debussy, and one of Bartók or Stravinsky. He may not like it all at first, but he should try to see what he likes and what he doesn't like. Bach is, of course, Bach-and he has a special appeal for so many reasons. I think you can do with Bach what you want-you can give his music a jazz beat, or sing it the way the Swingle Singers do, but you still hear Bach. You can do almost anything to the poor man and he's still there. Mozartwell, he's such a genius. What more can you say about him? Beethovenbecause he's always had such appeal



to the man in the street. He has so much to say to so many people. Mahler—because I think he is such a child of our time. He has no restraint in the Classical sense, the way Mozart does, for example. He's given us all his problems as a human being. He awakens you, makes you aware of the depth of music. Bartók and Stravinsky—because they're so much the language of this century. And Debussy—to hear what an Impressionist composer can do with colors.



VLADIMIR ASHKENAZY

Russian pianist; a naturalized citizen and resident of Iceland

• I would begin with either the Fifth or Seventh Symphony of Beethoven, as conducted by Furtwängler. Then a record with two Mozart symphonies on it, as conducted by Barenboim. Actually, I think I should put these two records nearer the end of the list, and suggest starting with some programmatic music—something like Mous-

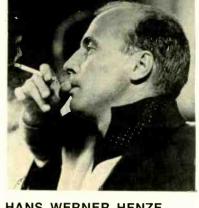
sorgsky's Pictures at an Exhibition. The orchestral version would be better for a beginner, although I prefer the piano version myself. Now, we need something on the Romantic side: a record of Wagner overtures would be a good one, but an orchestral record, not a vocal one. The overtures to Lohengrin or Meistersinger, or Siegfried's Rhine Journey – things like that. There are some very beautiful Toscanini recordings of these works. And, for the last choice, I'd say Tchaikovsky's Fourth Symphony.



DEAN DIXONAmerican conductor; music director of the Hessian State Radio Orchestra, Frankfurt, West Germany

• Based on my own early exposure and my philosophy of learning, I would suggest the Beethoven Fifth Symphony, the big G Minor Symphony of Mozart (No. 40), the Haydn "Clock" Symphony (No. 101), the Brahms First, and the Mahler First. They represent high points in these composers' output,

and the listener can achieve a level of understanding of these composers from exposure to these particular works. Then he won't have much trouble spreading out to the Brahms Second, Third, or Fourth, or to the Beethoven Sixth, Seventh, Eighth, Ninth, and so on. He will have a feeling for the dialect of the language, even though he doesn't understand the language very well. It's something like having a feeling for the Cockney accent even though you don't understand the exact meaning of each word. Now, there are a lot of composers I love, but I wouldn't place them in the same category with the five I named. I don't make a distinction between what a young person should listen to and what any one else should listen to. It would be the same for a three-monthold baby too. If you asked me what a mother should put on as background in her baby's room. I'd give the same answers. I don't believe that "children's music" or light classics are helpful for anyone's cultural education. I would suggest, however, that a young student listen the first hundred times without necessarily concentrating. He should listen while he's eating or doing work around the house.



HANS WERNER HENZE German composer, now living in Italy

The beginner should buy as much of the keyboard music of Bach as he can get hold of. He should have an opera-Mozart's Don Giovanni. Then the Mozart string quintets. Mahler's Third Symphony. Alban Berg's Three Pieces for Orchestra, possibly with Schoenberg's Five Pieces for Orchestra on the reverse side, if such a recording is available [it isn't]. The Bach keyboard music is, first of all, very pleasant to listen to. I'm thinking of students in their rooms, and instead of having some ear-deafening, minddeafening rock going all the time, they would hear music that is graceful, passionate, disciplined, charming, and sexy all at once. As for Don Giovanni, it is one of the most beautiful works in music, psychologically and philosophically profound. Don Giovanni is not about a sex hero. The sensuality is in the music. It reminds me of bodies designed by Raphael or Pontormo. It's very alive-and very now, I think. There's certainly more love in it than in most rock. I should emphasize that I don't dislike rock, but one cannot point out frequently enough that there is something that is wider and more beautiful-even wilder! Now the Mozart quintets are the most beautiful chamber music ever written. And the Mahler Third is the least academic (of his symphonies) in construction. It's the most daring in form, and the most unsymphonic in a new way. There's something fantastic about it, something very unorthodox and enterprising. And Berg and Schoenbergbecause I think if you can understand these pieces, you can judge the rest of modern music very well. They are really the measure for everything written since. [Of my own work], perhaps the Double Concerto for Oboe and Harp. It is rather easy to listen to. and has melodic lines that help you to understand symphonic structures. Also it is full of memories of when I was younger myself. That's why I like it so much.

VAN CLIBURN

American pianist

 I believe a beginner can get a great deal of pleasure, and learn a lot about musical form and different rhythmic patterns, from the Sixth Symphony of Tchaikovsky. It has a great deal of melody. It has rhythmic variation. And it has something that, when you get through listening to it, you'll want desperately to hear again. To me, that is the first thing to learn about classical music-that when something is classic it is enduring, it stands endless rehearing. There is no such thing as being bored with a great piece of music. Now, we're talking about recordings as a springboard to get people into the habit of listening to music. So I would say, let's go to another man who [like Tchaikovsky] was born on May 7: Brahms. And let's make up a special composite Brahms symphony. I'd recommend the last movement of his First Symphony, the first two movements of his Fourth, and the third movement of his Third. . Certain parts of great symphonies or concertos are jewels in themselves. The third movement of the Brahms Third Symphony is a jewel standing alone in the sunset. I'd suggest taking just such highlights for the moment. Then, if the beginner liked that, I'd say listen to the rest of each symphony. You can always go back and listen to more. Next, I would suggest the Water Music



of Handel. It has a festive, almost modern quality which would appeal to young people-because of the fanfares and brass sounds, which I think a lot of people associate with some modern music. Then, as a pianist, I naturally think of music written for the piano-and Chopin. You can pick almost anything of his and get an idea of piano music, because he was such a master of writing for the piano. I would probably choose the Scherzo No. 2 in B-flat Minor. It embodies beauty, melodic content, varying moods, that sort of thing. Next on my list would be the Fifth Symphony of Beethoven. And I certainly would not want to omit an opera. Depending on the personality of the young person to whom I was speaking, I would suggest either Puccini's La Bohème or Turandot, which I adore.



SEIJI OZAWA

Japanese conductor; music director of the Boston Symphony Orchestra and the San Francisco Symphony Orchestra

• If he lives near or in a large city that has an orchestra, he should buy a concert ticket. If the orchestra has an open rehearsal, I would suggest he go to that first, and then to a concert. Then, for records, I would suggest he buy the record by Dinu Lipatti of Bach's "Jesu, Joy of Man's Desiring,"

from the Cantata No. 147. To me, it's one of the most beautiful and simplest works in all music. You don't have to know anything about classical music. You just listen a few times—alone, I suggest, because I believe music is really one-to-one. (Bach should be ranked alone, too!) In the beginning that's enough. After hearing Lipatti's recording about five times, you should have your taste tempted—or else just give up music. I think that is enough. Dinu Lipatti played it so beautifully, so simply, so cleanly. And so warmly. It's really deep and human.

DANIEL BARENBOIM

Argentine-born Israeli pianist and conductor

• Before answering the question directly, I would like to stress that it really isn't necessary to know a great deal about music and the way it's constructed in order to appreciate it. What makes music so universal and gives it so powerful an impact is that it addresses itself to different people in different ways. This is the marvelous thing about music. But I feel a lot of people avoid concerts or don't buy records because they hear musicians

talking about "the dominant chord" or something else that sounds complicated, and they become frightened. It's a pity, because we need people to appreciate music in different ways. Once you understand that, the choice of the records you buy or the music you listen to in the beginning is relatively unimportant. It doesn't make much difference whether your first record is a Mozart symphony, a Beethoven string quartet, a Tchaikovsky concerto, or something by Stravinsky or Schoenberg. But to answer your question directly: I would say the best way to start is with pieces that have

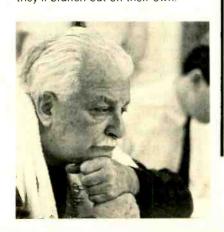
become the pillars of our musical culture—by musicians such as Bach, Mozart, Beethoven, Brahms.



ARTHUR FIEDLER

American conductor; conductor of the Boston Pops Orchestra since 1930

 Most young people today have had a chance to hear at least one or two youth concerts, and from these they get a smattering of what's important in the classical literature. From these they can branch out themselves and see what they like. As for recommending five or six specific recordings, it's so hard to say which. I think, certainly, they should try something by Mozart. And one of the Beethoven symphonies. And some Ravel, which is very colorful. Also some Rimsky-Korsakov. And I think they'd find Sibelius interesting. In the meantime, I'm not one of those who object to their listening to a lot of rock-and-roll. Eventually their curiosity about other types of music will get the best of them, and they'll branch out on their own.





MICHAEL TILSON THOMAS

American conductor; music director of the Buffalo Philharmonic Orchestra and director of the New York Philharmonic's Young People's Concerts

◆ The pieces I would recommend would be ones which would involve the listener in the experience of music, rather than necessarily pieces which I consider to be the most important masterworks. I'd start out by recommending that he or she get a recording of The Play of Daniel [Decca 79402] as an example of the most important, germinal phase of all our music. Then I would suggest a stylistic recording, if such exists, of harpsichord music—perhaps some harpsichord concertos of Bach. This has interest in terms of performing practice,

instruments, and virtuosity, as well as being sublime music. Then I'd skip a bit and recommend Stravinsky's The Rite of Spring. Also, perhaps, some pieces like the Davidovsky Synchronisms for Electronic and Live Instruments or one of the Stockhausen electronic pieces. I would also certainly have to recommend that he get some record of a major Asian musical discipline or some other non-Western discipline-without which, I think, it's almost impossible to understand the uniqueness of our music. When we get to the nineteenth century . . . I have a feeling that young people today simply do not connect with certain aspects of late nineteenth-century music. But a piece like Brahms' Variations on a Theme by Haydn might be very good. Or maybe some big, sweeping Russian work like the Tchaikovsky Fourth Symphony. I would also suggest they get a Victoria de los Angeles record just for the sheer appreciation of the possibilities of vocal expression. What I think is most marvelous about today is that all the barriers are breaking down, all the differentiations are collapsing, so that we are no longer in a time when because one liked Wagner one therefore couldn't like Brahms. Today you just simply decide what it is that you like. It may be only one piece by some particular composer, but that's fine. You listen to that because you want to.



"IFAITHIA" IHINES

The Father of Modern Jazz Piano, after some fifty years before the public, is still playing—and better than ever

By Stanley Dance

PONTANEOUS improvisation has always been regarded as vital in jazz, yet the number of performers who have retained an ability to improvise freshly throughout their careers is pathetically small. The jazz firmament is littered with prematurely burnt-out stars—and with stars who have gone on winking out the same old message long after it was wearisomely familiar.

Among the few outstanding exceptions to this general rule are Duke Ellington (of course) and Earl Hines: their professional lives span almost the whole of jazz history. Significantly, both are pianists. Age and purely physical demands seem to take a swifter and more ruthless toll among reed and brass players, but Ellington goes on expressing himself with imagination not only at the piano but as a composer and arranger as well, and Hines, more of a virtuoso on his chosen instrument, is recognized by international consensus as playing bet-

ter than ever. For example, in the same month this past year that *Down Beat*'s Critics' Poll (again) voted him the world's top jazz pianist, *Variety* saluted him as the sensation of the mammoth Newport Jazz Festival in New York.

By a happy coincidence, Hines and the veteran Eubie Blake both received standing ovations the same night in Carnegie Hall last July. Fifty years before, it was Blake who had urged the younger man, not without a note of exasperation, to leave Pittsburgh for New York: "If you're here when I come back," he said, "I'll wrap my cane around your head!" Hines had indeed gone when Eubie returned, not to New York but to Chicago.

Earl Hines was born in Duquesne, Pennsylvania, in 1905, and there were musicians on both sides of the family. His father led a brass band and played cornet, his stepmother played organ, an uncle played all the brass instruments, and an aunt sang in light opera. Although his feet could only just reach the pedals, he began playing organ regularly in the Baptist church when he was nine. He had two piano teachers, and one, a strict German, saw to it that he was conversant with the compositions of Czerny, Chopin, Liszt, Bach, and Beethoven, music he still occasionally plays when at home. His progress was so rapid that he soon began appearing at local concerts, where he remembers winning "boxes of handkerchiefs and a lot of encouraging pats on the head."

A cousin introduced him to jazz and its attendant nightlife in nearby Pittsburgh, where an established singer, Lois Deppe, heard and was impressed by his ability. Hines' father was not easily persuaded, but he eventually agreed to the seventeen-year-old prodigy's becoming Deppe's accompanist at a club called the Leader House. (The salary was fifteen dollars a week, plus two meals a day, apple dumplings being a feature of the menu the pianist still remembers with approval.) It was there that he began to develop his jazz style. A rather primitive but rhythmically exciting piano player, a hunchback named Toadlow Johnson, engaged his attention at first, but a more advanced musician, Johnny Waters, was also playing at the Leader House. Waters possessed a formidable treble technique, and, by buying him gin and cigarettes, Hines induced him to show him some of his devices. Jim Fellman, a third influence, was encountered at a party. He had forsaken the prevalent ragtime bass and played tenths smoothly in the left hand. His tastes were less expensive than Waters', and so, in exchange for beer and chewing tobacco, he divulged more tricks of the trade to Hines on the piano upstairs at the Leader House. Another musician Hines credits as an important early influence was George Burchett, a banjo player who made a fetish of strict tempo. But what was eventually to emerge as the most striking characteristic in the mature pianist's style was derived from the trumpet.

Many musicians later to become famous in jazz played in and around Pittsburgh, among them Don Redman, Benny Carter, and Joe Smith. Hines had tried the trumpet as a youngster, but he gave it up when it caused pains behind his ears. His interest in the instrument continued, however, and he was fascinated by the way Joe Smith played it. Smith was one of the trumpet players most respected and admired by black musicians, and his work survives convincingly on many records by Bessie Smith, whose favorite he was, and on others by Fletcher Henderson, with whom he worked for several years. Hines is always emphatic about the great impression Smith made upon him, but because of his famous later association with Louis Armstrong, the earlier influence is ignored and all the characteristics of his so-called "trumpet style" are assumed to have been inspired by Armstrong. Many of them obviously were, yet some of the fundamental melodic quality in his work undoubtedly came from Smith. "I used to love Joe," he recalled, "because trumpet players in those days tried to get as close to the human voice as they possibly could, and he always sounded like somebody singing."

In any event, having absorbed lessons from several capable Pittsburgh musicians as well as from such visiting notables as Luckey Roberts and Eubie Blake, Hines was a well-equipped pianist with a style of his own when he set out for Chicago in 1923. Blake, in fact, maintains today that at seventeen Hines was playing "just the same as he does now."

"Pittsburgh was no heaven," Hines reminisces, "but when I got to Chicago, I thought it was the worst town in the world. I found some of the most dangerous people in the country on 35th Street when I started working there. I knew how to duck and dodge, but somebody was always getting hurt. Everybody carried a gun, and you had to act as though you were at least a bit bad. That's why that piano player from New Orleans, Jelly Roll Morton, always talked so loud and carried a pistol."

Nevertheless, Chicago was to be the jazz capital of the world in the Twenties, and the kid from Pittsburgh played a major part in making it so. He was an immediate sensation when he opened at the Elite No. 2 Club, and during the next five years his reputation was steadily enhanced during a variety of engagements, one of which took him to California



In 1971, Hines again met Lois Deppe, the singer who had hired him as accompanist in Pittsburgh almost fifty years before.

and back. Teddy Weatherford had been regarded as Chicago's leading jazz pianist, but after a few contests contrived by a mutual friend, tapdancer Lovie Taylor, Hines was generally conceded to be the champion. Marguerite Rosson, herself a professional pianist then, reminisced about those occasions recently and was positive that there had been no real competition, that Weatherford had simply been outclassed. The two men became close friends, however, and remained so until Weatherford left Chicago in 1926 to spend most of the rest of his life in China and India.

In 1928, Hines almost overnight acquired an international reputation as a result of the classic records he made with clarinetist Jimmie Noone and Louis Armstrong—for Vocalion and Okeh, respectively. His first solo recordings were made at the end of the year for Q.R.S., a firm more concerned with piano rolls. Poorly distributed, they promptly became collector's items (they are now available on Milestone 2012, and in enlarged 1970 versions on Chiaroscuro 101). Luckily, he also recorded four solos for Okeh, which were enthusiastically received here and abroad.

It is perhaps hard now to appreciate the impact Hines' piano had on pianists and the public at that time. They heard it mostly in company with Armstrong's trumpet, but, dazzling though that was, the piano was by no means overshadowed. In fact, it almost at once became the most influential and widely imitated piano style in jazz. The "stride" style, of which James P. Johnson and Fats Waller were the great masters, was not supplanted, the two styles existing compatibly side by side; but so far as

younger, upcoming pianists were concerned, Hines was now the fashionable model. A few of those who acknowledged his inspiration were Nat Cole, Stan Kenton, Billy Kyle, Jess Stacy, Horace Henderson, Zinky Cohn, and Teddy Wilson. Many others showed his influence as well, including his good friend Art Tatum. Not for nothing has Hines been called the "Father of Modern Jazz Piano."

"Trumpet style" quickly became used by many to describe his way of playing piano. In the treble, he simulated vibrato with tremolos and played stabbing single notes. His phrasing often resembled a trumpet player's, with momentary suspensions suggesting breath pauses. He had early developed an octave technique in the right hand that enabled him to cut through the clamor of jazz horns in the days before amplification. Added to a strong, incisive touch, all this gave his playing an unusually bright, brassy quality. More important, there was also a new feeling of rhythmic freedom, quite at variance with the disciplined approach of the stride school, and breaking irrevocably with the methodical ragtime tradition that still lingered in jazz. The independence – and interdependence – of the two hands was remarkable, denoting perhaps the influences of Waters and Fellman. To the inexperienced listener, Hines often seemed to be tying himself up in knots impossible to unravel, but his unparalleled rhythmic sense always enabled him to emerge gracefully right on the beat, even after passages in which the beat appeared to be either lost or barely implied. The seeds of bop. Duke Ellington remarked fifty years later, were already present in Hines' rhythmic complexity of the Twenties.

His fertile imagination lent an element of fantasy to many of his performances, such as the punningly titled Fifty-Seven Varieties, the later Child of a Disordered Brain, and the long, many-storied inventions on some relatively recent discs (Stardust, Dinah, Mood Indigo, Deep Forest, etc.). Hissimagination made him the ideal pianist for Louis Arm-

Hines' piano style was central to jazz; it inspired many imitators, but it also gave a start to such creative pianists as (left to right) Teddy Wilson, Eddie Heywood, and Erroll Garner.



strong, and it is safe to say that theirs was the most exciting partnership—in terms of creative improvisation—that jazz has known, one that set standards for the approaching Swing Era. "Swing is not an objective word," pianist Teddy Wilson once said, "but my conditioning of the swing feeling was the way Armstrong and Hines played on the Hot Five records—not—the—others, just—Armstrong—and Hines."

HE year 1928 was auspicious in every way for Hines. On his birthday, December 28, his career underwent a decided change, and a somewhat carefree phase came to an end. He had had big-band experience with Lois Deppe and Carroll Dickerson, he had conducted the band Louis Armstrong fronted at the Sunset Café, and his ability as a leader had been remarked by club owners. To head his own group was the logical next step, and in fact, when he was asked to take one into a new Chicago club, he already had his band in active rehearsal.

For the next decade, he and his band reigned supreme at the Grand Terrace on Oakwood and South Parkway. The audience was seated on several levels in this former theater, where elaborate shows with a chorus line, singers, dancers, comedians, and the band were presented nightly, seven nights a week. Soon recognized as the most exciting night club in the city, the Grand Terrace was Chicago's equivalent of New York's Cotton Club. Indeed, the theatrical experience Hines received there was almost identical with Duke Ellington's in the Harlem club, and it had a similar effect on the thinking of both in regard to presentation. Hines accompanied stars like Ethel Waters and "Bojangles" Robinson, met Paul Whiteman, George Gershwin, George Raft, Guy Lombardo, and Hoagy Carmichael, and inevitably learned much about show-business values.

Al Capone owned a quarter of the Grand Terrace, and for several years he and his henchmen

After the breakup of his own big band in 1947, Hines joined an all-star group led by Louis Armstrong: left to right, Cozy Cole, Jack Teagarden, Armstrong, Arvell Shaw, Barney Bigard. Hines.



were frequent visitors, both for pleasure and for business. According to Hines, Capone never carried a gun himself, but he always had his bodyguards with him, and when the band went to New York for the first time he sent two of them along to protect the leader from that city's racketeers. The musicians learned not to see, hear, or speak of the evil around them, but something of the period's feverish atmosphere was nevertheless reflected in the music. By 1934, when it recorded for Decca, the band was one of the best in the country. It emphasized swing in a way Count Basie's band was to do a couple of years later, its nightly broadcasts having already exerted a profound influence on Kansas City musicians. In the view of players like Jonah Jones, the band styles of both Hines and Basie were "western."

Because it was based in Chicago and not in New York (like those of Ellington, Henderson, Lunceford, and Webb), the Hines band never received its due in the jazz magazines and history books, but it was immensely popular in the Midwest and Canada, thanks to the radio wire which took its swinging message out over the networks from the Grand Terrace. It was on a broadcast from there that the youthful-looking Hines received his nickname, "Fatha." He had had occasion to rebuke an announcer who was imbibing too freely, and this worthy, perhaps to make amends, came up with something special when the time came to introduce the band's theme. "Here comes 'Fatha' Hines through the Deep Forest with his children," he cried.

A series of talented arrangers built the band's book. The first, Cecil Irwin, was killed in a bus accident. Reginald Foresythe wrote *Deep Forest*. Henri Woode collaborated with Hines on one of his biggest song hits, Rosetta. Next was Jimmy Mundy, whose brilliance led to his receiving offers from Benny Goodman and to his eventual departure. He was followed by Budd Johnson, a major figure in the band's history and, like Irwin and Mundy, a tenor saxophonist in the band. The writing of these men, as well as the occasional contributions of outside arrangers and other members of the band (bassist Quinn Wilson, for example), was less concerned with establishing a stylistic identity than was the case with several other prominent bands. Much of the material was written to fit specific needs in the Grand Terrace shows, but the bulk of it was essentially music for dancing, and this the band interpreted with a kind of headlong impetuosity.

The personnel was relatively stable, and such excellent soloists as Omer Simeon, Walter Fuller, George Dixon, Darnell Howard, Trummy Young,



Hines was rarely able to "buy" talent for his groups; instead, he discovered and developed it, from the time of his Grand Terrace Orchestra (right) of the late Twenties and Thirties to the 1969 recording group (opposite page) featuring singer Marva Josie.

Budd Johnson, and Ray Nance were featured during the Grand Terrace years (listen to Decca 79221, RCA LPV-512). But the dominant personality at all times was that of the leader, both as soloist and as member of the rhythm section. He was fortunate throughout most of the Thirties to have teammates like Quinn Wilson on bass, and first Wallace Bishop and then Alvin Burroughs on drums.

Hines eventually found out that he was being grossly underpaid by the management of the Grand Terrace, and he took the matter to the musicians' union for rectification. Before then he had never been able to afford to "buy" stars as other bandleaders did. Instead, he had been obliged to discover them, and in this he was eminently successful. Besides the musicians already mentioned, he showed a special flair for finding singers. It was he who persuaded a reluctant Ivie Anderson, then singing in the Grand Terrace show, to accept an offer from Duke Ellington. For his own band, he hired a remarkable string of vocalists through the years, among them Arthur Lee Simpkins, Valaida Snow, Kathryn Perry, Ida James, Herb Jeffries, Billy Eckstine, Madeleine Green, Sarah Vaughan, Melrose Colbert, Johnny Hartman, Essex Scott, Lonnie Satin, Etta Jones, and, most recently, Marva Josie, a young singer for whom he predicts a great future (she can be heard on BASF 20749 and Chiaroscuro 116).

Hines heard Billy Eckstine singing in Chicago at the Club DeLisa in 1939 and promptly hired him. Not long afterwards, he also engaged the attractive Madeleine Green, who had been with Benny Goodman. With this good-looking pair of singers out front, he soon found himself enjoying his greatest popularity as a bandleader. Besides vocal hits such as Jelly, Jelly, Stormy Monday Blues, It Had to Be You, and I Got It Bad, the band scored with such

instrumentals as Boogie Woogie on St. Louis Blues, Piano Man, and Second Balcony Jump.

World War II inevitably brought many changes in the music business, but it was the recording ban of 1943 that deprived the jazz world of documentation on the Hines band when it had Sarah Vaughan, Dizzy Gillespie, and Charlie Parker. Jazz circles have attached much importance to this period, when the band reputedly served as the "incubator of be-bop," and it was certainly then that Parker and Gillespie worked out their revolutionary ideas. Despite their subsequent success, it is impossible to determine now just how sympathetic the atmosphere in the "incubator" really was toward their researches. To judge from his band recordings of 1945 and 1946, Hines himself had not been too much impressed. After a catastrophic experience with girl musicians, he had formed another excellent band containing men like Willie Cook, Wardell Gray, Benny Green, and Cliff Smalls, but big bands were generally in economic trouble by 1947. Hines broke his up that year and joined a small all-star group led by his old friend Louis Armstrong, with whom he remained until 1951. For the next four years, he led small groups of his own, using firstclass musicians (Jonah Jones, Dicky Wells, Benny Green, and Art Blakey), but there was scant success. In 1955, discouraged, he went into semi-retirement in San Francisco, fronting an uninspired Dixieland band at the Hangover Club. He made his home in Oakland, and apart from occasional forays to the East, to Europe, and into record studios, he was largely lost sight of by the jazz audience. After trying to operate his own club in Oakland, he was actually on the point of quitting the music business altogether in 1964 when fate summoned him to New York.

Jazz enthusiasts Dan Morgenstern and Dave Himmelstein had obtained the use of the off-Broad-



way Little Theatre two nights a week for a short season, and they proceeded to put on a series of uncompromising jazz programs. This writer had remained in touch with Hines through the years via mail. Because there is scarcely anything he hates more than writing letters, his replies came verbally on tapes, which he sometimes filled up with piano solos. For me, these served the double purpose of giving pleasure and confirming his continued supremacy at a time when he was seldom recorded. The budding impresarios at once accepted my suggestion that Hines be added to their series, and a telephone call brought him east for three concerts that proved to be nothing short of sensational.

Although he claimed never to have given a piano "recital" of the kind now required of him, insisting on regarding himself as a band pianist rather than a soloist, the concerts proceeded with exemplary professionalism in an atmosphere of astonishing warmth and enthusiasm. He established a quick rapport with the audience by likening the concert to a performance in his living room for friends. He played first alone, then with bass and drums added, and for several climactic numbers he brought out his right-hand man from the Grand Terrace days, tenor saxophonist Budd Johnson. (One of the concerts was recorded, and excerpts can be heard on Focus 335.)

The critics were surprised and ecstatic, for they had heard no pianist with his qualifications in years. Whitney Balliett wrote of "a juxtaposition of moods that made one laugh with delight." This aptly described an aspect of Hines that was as evident now as it had been in 1928 with Fifty-Seven Varieties. The sudden contrasts—rhythmic, melodic, harmonic, dynamic—were a welcome change from the fashionable and rather monotonous devotion to "running the changes" on the chord structure. Subsequently, Balliett wrote a lengthy profile of Hines

in the *New Yorker* which was very much responsible for what has come to be called the pianist's "resurgence."

The world opened up for him again. "From then on," he says today, "I had a new spirit, a new life." He recorded frequently for labels major and minor. He toured Europe repeatedly, triumphed in Russia for five weeks on behalf of the State Department, went storming through Latin America with Oscar Peterson, played in Japan and Australia, and traveled back and forth across the U.S. and Canada. Those who had not seen him before—and those who had not seen him for years—were equally amazed by his appearance. Some even wanted to know if he wasn't really the son of the "Fatha" Hines their parents had listened to at the Grand Terrace.

TINES does wear his years lightly. Although anything but a hypochondriac, he takes care of himself, eats regularly but not heavily, drinks little, and smokes only cigars or a pipe. "When I go on the stand," he says, "I like to have a clear mind, so I can play – play from the heart." He is serious about his exercises, which he will demonstrate to overweight friends and acquaintances in the most unlikely places. His athletic figure is appropriate to one whose interest in sports, both as participant and as spectator, is exceeded only by his interest in music. An amateur boxer in his youth, he spent much time in the company of Joe Louis and Sugar Ray Robinson at their training camps (Robinson recorded with him as vocalist on one session). And because of television, hotel life is no longer the hardship it once was for him. He even has a portable set that enables him to follow baseball and football games during intermissions in the clubs where he is appearing.

He dresses elegantly, is always concerned about his group's attire, and is frankly critical about the way younger musicians often present themselves. "They come on the stand in clothes they might have been wearing on the farm or in a factory," he says. "Sometimes they look as though they haven't shaved for three or four days. I don't think this is showing any respect for the audience. They're playing for money, and it's the audience that's really paying it. It wouldn't hurt them to clean up a bit."

That remark brought him logically around to the subject of big bands again. "I always wanted to be a bandleader," he continues, "and big bands were really my first love. They did a lot for youngsters in the old days. When they came to town, the kids would be sitting or standing in front of their idol, whether he was in the brass section, the reed sec-

EARL HINES: A SELECTIVE DISCOGRAPHY

A Monday Date: 1928, Milestone 2012 At the Apex Club (with Jimmie Noone), Decca 79235F The Louis Armstrong Story, Vol. III, Columbia CL 853 South Side Swing (1934-1935), Decca 79221E The Grand Terrace Band (1939-1940), RCA LPV 512 The Incomparable Earl "Fatha" Hines, Fantasy 8381 The Real Earl Hines in Concert, Focus S-335 Fatha, Columbia CSP JCS 9120 The Mighty Fatha, Flying Dutchman FD 10147 Once Upon a Time (with Johnny Hodges), Impulse S-Hines '65, Master Jazz 8109 At Home, Delmark 212 Blues and Things (with Jimmy Rushing), Master Jazz 8101 Hines Plays Ellington, Master Jazz 8114 Master Jazz Piano, Vols. 1, 11, 111 (with Sonny White, Jay McShann, Claude Hopkins, et al.), Master Jazz Quintessential Recording Session, Chiaroscuro 101 Quintessential Continued, Chiaroscuro 120 An Evening with Earl Hines, Chiaroscuro 116 Earl Hines and Maxine Sullivan, Chiaroscuro 107 Back on the Street (with Jonah Jones), Chiaroscuro 118 Fatha and His Flock on Tour, BASF 20749 My Tribute to Louis, Audiophile S-111 Hines Comes in Handy, Audiophile S-112 Hines Does Hoagy, Audiophile S-113

tion, or the rhythm section. Those bands in the ball-rooms kept them off the streets, and, next thing you knew, they'd be rehearsing somewhere with their own little group. The bands dressed sharp, and they looked glamorous sitting up there on the stand, and this attracted a lot of youngsters to music. For another thing, I think the guys in those bands were the first real Freedom Riders in the South. We had a lot of disheartening experiences down there, but they kept going through, and their music, and their appearance, counted for something in breaking barriers down."

Today, Hines normally works with bass, drums. saxophone, and singer Marva Josie. They play jazz clubs, hotel rooms, restaurants, festivals, colleges. riverboats, and concert halls. The nature of the business is such that it is often difficult to keep the group working steadily and thus to keep compatible personnel together; to do this, Hines makes considerable sacrifices himself. Although modesty keeps him from admitting it, he knows perfectly well that many people would prefer to hear him all alone. He also knows that to play three or four sets by himself, night after night, would be a considerable strain, for he is constitutionally unable to coast. Moreover, experience taught him long ago how much audiences can vary. In some rooms, the music is merely an accompaniment to eating, drinking, and conversation. In others, people have come to listen or dance, or both. In still others, what they really want is a variety show. Hines has something for them all: a medley of Fats Waller songs; a medley of numbers associated with his good friend the late Johnny Hodges; a collection of titles by other pianists — Ellington, Heywood, Garner, and Shearing; danceable instrumental versions of his own compositions; contemporary songs by Marva Josie; and so on. Sometimes he is so concerned with featuring his colleagues that the customers feel they don't get enough piano! In fact, it often seems that the best place to hear Earl Hines is alone in a record studio.

Since 1964, he has made more than a dozen solo albums here and abroad, some better than others, but all of them rewarding. The personality so strongly manifest in 1928 is still everywhere apparent in them, but much has been added to what was even then too easily defined as "trumpet style." The friendships with Fats Waller and Art Tatum were obviously mutually beneficial, but he has continued to listen to developments in jazz piano ever since, not without disapproval of some of them. He dislikes, for example, the way the role of the left hand has been allowed to atrophy. "You must have two hands," he insists. "If you haven't got a left hand, it just isn't piano." At last July's concert in Carnegie Hall, he unexpectedly introduced a version of Close to Me. "Just to show I know those modern chords, too," he explained afterwards. In the record studio, after lighting his pipe or cigar, he proceeds to produce improvisations that are veritable masterpieces, sometimes as much as ten minutes long. Second takes are seldom necessary, but when he does decide to change the tempo or the approach, a totally different interpretation materializes. He listens intently to the playbacks. "You like that?" he asks. His reply to the usual affirmative answer is almost apologetic: "I had no idea I played so long."

PIANO players probably appreciate him most of all. Dave Brubeck, Nat Cole, Billy Kyle, Marian McPartland, Horace Silver, Billy Taylor, Ray Bryant, and Lennie Tristano have all sung his praises. "When you talk about greatness," Erroll Garner once said, "you talk about Art Tatum and Earl Hines." Dick Wellstood recently described him as "King of Freedom" and "King of Beasts" in a liner note. But it was Count Basie who expressed his admiration most graphically. "Why," he told Ralph Gleason, "Earl can go on for ninety years and never be out of date. You get bruised running up against a cat like that!"

Stanley Dance, jazz critic and author of The World of Duke Ellington, has known Earl Hines for more than twenty years, produced some of his records, and is at work on a book about him.

STEREO REVIEW'S SELECTION OF RECORDINGS OF SPECIAL MERIT

BEST OF THE MONTH



CLASSICAL

HOLST'S PLANETS THE WAY HE MEANT THEM TO BE

Bernstein melds the best elements of previous interpretations into a powerful new synthesis

TEONARD BERNSTEIN has pulled off what amounts to an elemental musical miracle with his new recording of Gustav Holst's *Planets* for Columbia, one comparable to what he wrought previously with his discs of the middle symphonies of Mahler. He has taken music which, despite certain elements of intractability, has always tended to become a mere "vehicle" for virtuoso orchestras and conductors and, by dint of an overwhelmingly powerful interpretive vision (supported, of course, by superb orchestral playing and a simply dazzling engineering contribution), has added a whole new dimension to the work as a listening experience.

This is not to belittle in any way the virtues of four other outstanding recorded performances

among the nine now available-those by Zubin Mehta for London, Bernard Haitink for Philips, William Steinberg for Deutsche Grammophon, and veteran Holst interpreter Sir Adrian Boult for Angel. Each has its separate and special beauties, and I would not want to sacrifice any one of them. But somehow Bernstein has effectively - and surprisingly-managed to combine the best aspects of all of them and to fuse them into a musical whole with astounding communicative power. It convinces me that this is what the composer himself was aftermagic, mystery, and terror made manifest by the resourceful manipulation of the musical materials: an immense orchestra, a pipe organ, and an atmospheric offstage choir.

Bernstein's Mars is mindlessly, relentlessly heartless, as it ought to be. In Venus, there is happily no succumbing to the temptations of self-indulgent phrasing or gaudy dynamics, but a yearning sensuousness that calls to mind Faust's plea to Helen: "Stay, thou art fair!" In fact, if there is one single adjective that may be said to characterize Bernstein's view and execution of this rich work, that adjective is "Faustian."

Mercury is gorgeously, scintillatingly volatile throughout, but Jupiter is the most crucial test, for it offers—indeed, invites—a surrender to outrageous vulgarity and cloying sentimentality. The interpretive line to tread is a narrow one—bluffness, vigor,

and high animal spirits—and there must, above all, be a stubbornly maintained pulse in the big middle-section tune. Bernstein and his forces manage all this superbly.

I have always vacillated in deciding whether it is Saturn or Neptune that contains the most deeply moving music in this kaleidoscopic score. But I do know that it is the heart-rending cry of mortality at the climax of Saturn (Faust again!) that decides for me whether a given reading will stand or fall; Bernstein's maintains its footing magnificently. Uranus' funand-games, together with its vaguely macabre overtones, are colorfully sketched with wonderful figurative and rhythmic detail. The famous organ



Leonard Bernstein

A Faust among the planets



RAYMOND LEPPARD: Monteverdi's best (recent) friend

glissando at the climax is evident and effective—though perhaps Haitink does it just a little better.

But it is *Neptune* that is the big surprise here, for almost all other performances I have encountered, both on and off records, have tended to emphasize the "outer space" atmosphere to the point of musical indefinability. Bernstein (and, especially here, the Columbia engineering staff) takes a totally opposite tack, striving for the utmost clarity of real harmonic and implied linear texture. Every overlap of phrase and every note of a chord is therefore not only audible, but comprehensible within the whole scheme of things, heightening rather than dissipating the mystical attributes ascribed to Neptune by Holst.

There is no doubt in my mind that the remarkable impact of Leonard Bernstein's reading of *The Planets* depends heavily on the inspired help of the Columbia production and engineering staff. For example, there are details—especially in the harp and metallophone, not to mention the woodwinds—that simply are not audible in the concert hall. Here they emerge with startling definition and in remarkably just balance with the rest of the instruments as well. (My only reservation on this point has to do with the occasional over-prominence of the celesta in the *Neptune* and *Mercury* movements.)

As between the two-channel and four-channel pressings, it is unquestionably the four-channel disc that wins all the way. The "surround sound" in this instance is not that of the gimmicky Boulez recording of Bartók's Concerto for Orchestra (\square MQ 32132), but rather an expansion of the kind of sonic ambiance that places the listener at the (admittedly hypothetical) ideal listening spot in a large audito-

rium, with the orchestra arrayed in a large frontal semicircle. Heard side-for-side against the four-channel disc, the two-channel version sounds decidedly "flattish" in its acoustical perspective, even though there is no less detail in its overall musical texture. Also, I much prefer the sound of this "normal" symphony-orchestra setup to the unsettling, unnatural sonics of the Boulez-Bartók enterprise. And I do recommend, by the way, that this Bernstein *Planets* be played at full-volume level—this is *not* cocktail party stuff!

David Hall

HOLST: *The Panets-Suite*, *Op. 32*. New York Philharmonic, Leonard Bernstein cond. Columbia ☐ MQ 31125 \$6.98, M 31125 \$5.98, MAQ 31125 \$7.98, MA 31125 \$6.98. © MT 31125 \$6.98.

MONTEVERDI MADRIGALS: LOVE'S OLD SWEET SONG

Philips pursues its admirable revivifications of the Renaissance master's sleeping beauties

ACCORDING to Philips Records, Raymond Leppard's year-old recording of Monteverdi's last two books of madrigals (Philips 6799 006) has turned out to be, in its special way, a best seller (it won a STEREO REVIEW Record of the Year award for 1972). That magnificent achievement—a superb compilation of performances ranging from chamber-like madrigals for only a few voices to full-scale, stylistically perfect choral movements and operatic scenas—is now followed by an equally splendid account of the composer's earlier madrigals in his Books 3 and 4.

The contrast between these earlier madrigals (Book 3 was published in 1592, Book 4 in 1603) and the more demonstrably Baroque madrigals and extensions of madrigals in Book 8 (1638) and beyond is at times quite extreme. Around the turn of the century, Monteverdi was still very much a man of the Renaissance, a period in which the virtues of balance and repose were deemed paramount, when the importance of an overriding melody and a supportive bass line was still to be explored, and when five singers could contrapuntally declaim with enviable *sang-froid* such texts as "Oh, how great a suffering it is to conceal one's desire" or "My heart, will you not die? Die, die."

Nevertheless, though the form often belongs to the Renaissance, the manner of expression is already Baroque. Monteverdi, to whom the text means everything, is even in these earlier madrigals making one constantly aware of the affective potential of key words—suffer, lament, dying (in both the literal physical and figurative sexual senses), burning, sighing, laughing, fleeing, fainting, and so on—their sense being echoed in the sound of the music. Among other compositional techniques, his separation of the voices (the works in both books are written for five parts) into higher and lower groups for dramatic contrast is particularly effective.

Book 4, perhaps because of the pictorial qualities of its texts but also because the thirty-six-year-old Monteverdi was becoming ever more revolutionary in his musical experiments, is the highlight of this three-disc album. In it one finds such tremendously affecting settings as that for the line "Si, ch'io vorrei morire" ("Yes, I should like to die"), the haunting chromaticisms of "Piagn'e sospira" ("He wept and sighed"), or the warlike mood of "Non più guerra!" ("No more battles! Have pity!"), and because not every lyric is necessarily imbued with the tragic, even the lighthearted "Io mi son giovinetta" ("I am a young girl and I laugh and sing in springtime").

Most of the madrigals are sung with one singer to a part; only nine out of the twenty in Book 4 are performed by a choir. Instruments are not used. The singing is superbly controlled, with ideally blended voices and the most subtle inflections imaginable. I cannot conceive of more idiomatically rendered, more stylishly paced, or more handsomely sung performances than these. The sonic reproduction is superb, and texts, translations, and Leppard's own splendid annotations are included. Let us hope that the remaining books of Monteverdi's madrigals are being prepared for recording by these able forces. In the meantime, anyone with an interest in one of the most important composers in the history of music owes it to himself to obtain this Igor Kipnis revelatory set.

DANKWORTH-LAINE: another successful musical partnership



MONTEVERDI: Madrigals—Books 3 and 4 (complete). Sheila Armstrong, Wendy Eathorne, and Lillian Watson (sopranos); Alfreda Hodgson (mezzo-soprano); Anne Collins and Helen Watts (altos); Bernard Dickerson, Gerald English, Ian Partridge, and Robert Tear (tenors); Stafford Dean and Christopher Keyte (basses); members of the Glyndebourne Opera Chorus; Raymond Leppard cond. Philips SAL 6703 035 three discs \$20.94.

-- POPULAR --

TWO SIDES OF CLEO LAINE

Her debut album for RCA gives American audiences a better chance to hear the British star

ONE of the most interesting singers currently gracing our turntable, concert, and cabaret stages is Cleo Laine, whose exceptional charm and versatility have earned her a loyal following on both sides of the Atlantic. She brought London audiences to their feet when she appeared in the celebrated 1971 revival of Jerome Kern's Show Boat. She has sung in opera at Sadler's Wells. She has appeared in Britain's most hallowed concert halls offering song cycles by the big classical composers. She has entertained at every level from downstairs night clubs all the way up to the Rainbow Grill atop New York's RCA Building.

But Miss Laine is not one of those condescending opera-singer types who stoops to conquer a pop ballad from time to time just to prove she's a regular, democratic girl at heart. She really is versatile, and her secret lies in picking the just-right approach to anything she chooses to sing, whether it be Rodgers and Hammerstein or Carole King. Her phrasing, timing, tone, and tempo are always perfectly judged, and whatever the musical idiom, she displays an understanding that amounts to second sight.

Some of her devotees prefer to hear her in intimate recitals accompanied by small groups; others like her best when she unleashes a big sound to go with a big-band backing. All will be delighted to learn that she has it both ways in "I Am a Song," her appropriately named debut album for RCA. On side one there is a nicely gauged small-group approach to Dimitri Tiomkin's Friendly Persuasion, Charles Aznavour's There Is a Time, and the title song, an affecting tune by Miss Laine's husband, John Dankworth, who shared with Ken Gibson the job of preparing the album's fine arrangements.

Enter, on side two, a large studio orchestra,

heavy in the strings, for full-dress interpretations of songs by Rodgers and Hammerstein, George Gershwin, Johnny Mercer, and Mr. Dankworth again. Miss Laine is quite up to it all, especially in her way with Gershwin's But Not for Me – for easy appeal and world-weary delivery it rivals Ella Fitzgerald's all but definitive version. Yet she can as readily do for a new song what she does for an old one: Carole King's Music is exactly, sound-of-themoment right as well. She also makes a lovely vocalise out of a Bach Two-Part Invention, and sends you away reeling under the impact of her talent with the bluesiest version imaginable of Higginbotham's Hi-Heel Sneakers. Obviously quite a woman, and some singer. Paul Kresh

CLEO LAINE: I Am a Song. Cleo Laine (vocals); instrumental accompaniment; John Dankworth and Ken Gibson arr. I'm Gonna Sit Right Down and Write Myself a Letter; Early Autumn; Friendly Persuasion; There Is a Time; Day When the World Comes Alive; I Am a Song; It Might as Well Be Spring; Music; But Not for Me; Two-Part Invention; Talk to Me Baby; Thieving Boy; Hi-Heel Sneakers. RCA LPL1-5000 \$5.98, ® LPS1-5000 \$6.98.

JIMMY CLIFF'S INDIVIDUALIZED REGGAE

A larger audience awaits his remarkably original translation of a subtle genre

OF LATE there seems to be an awful lot of Jamaican reggae music, with its hypnotic, rock-influenced beat, around. Some of it is good, most of it bad, and so far I've heard only one recording in the well-mixed genre that I consider unique. It is Jimmy Cliff's even further hybridized new Warner Brothers release titled "Unlimited." Cliff, who may be familiar to you as the hero of the movie *The Harder They Come*, has been a reggae star in England for some years, a national hero in Jamaica for even longer, and, with this album, may be about to make it big in the States.

He wrote, produced, and performed everything in "Unlimited," and the recording itself was done in Kingston with a superb group of island musicians. Track after track, it burns with the intense heat of a tropic afternoon as Cliff kneads and molds the basic reggae sound into a completely contemporary and individual new form. *Under the Sun, Moon and Stars*, for instance, starts off familiarly enough with the clockwork percussion we've learned to expect,



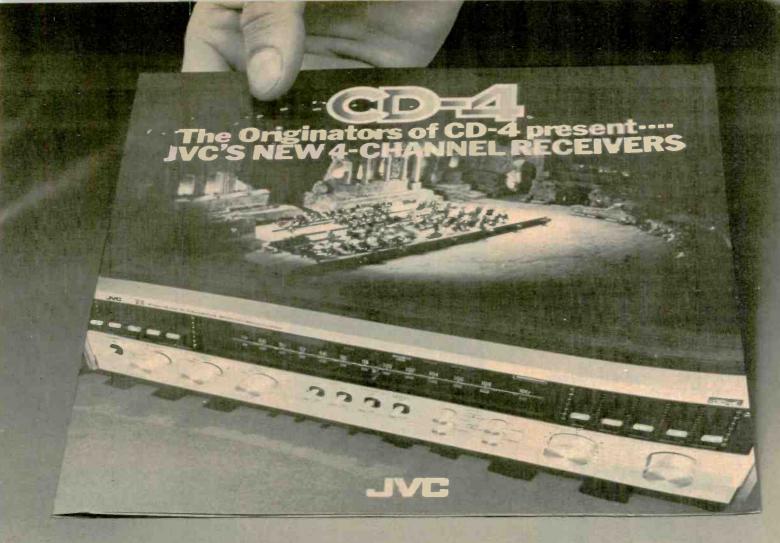
JIMMY CLIFF: simply terrific

but then it makes a quicksilver change - a kind of shifting of the gears—into something quite different. something quite personal and remarkable. Cliff's voice is strident and grating, yet he is able to make of it an effective instrument of communication and create a surprising atmosphere of lushness. Trinidadian calypso singers have always been famous for improvising rhyme on the spot, and though Jamaican reggae is not an extempore art, it sometimes sounds that way, perhaps because of its heavily vernacular lyrics and the homely nature of its subject matter: Cliff's Commercialization, for example, is a rough-cut gem about street life and street people, and Oh Jamaica is a yearning and genuinely touching anthem of affection for his Caribbean homeland.

I was alternately stirred, delighted, moved, and enchanted by Jimmy Cliff's work here. He has taken a somewhat limited and restricting musical form, opened it up, and adapted it to the sensibilities of the Seventies. He has kept all the best of the flavorful original and added something personal and dramatic of his own. He's simply terrific, and so is this album.

Peter Reilly

JIMMY CLIFF: Unlimited. Jimmy Cliff (vocals); orchestra. Born to Win; Poor Slave; World of Peace; Black Queen; Be True; Oh Jamaica; Commercialization; The Price of Peace; On My Life; I See the Light; Rip Off; Fundamental Reggay; Under the Sun, Moon and Stars. WARNER BROS, MS 2147 \$5.98.



be discrete

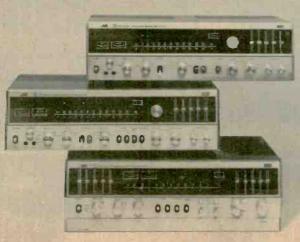
Going quad - you'll want to know everything there is to know about 4-channel and our discrete 4-channel system, CD-4. For the ultimate in quad, JVC introduces 3 receivers designed for all of today's 4-channel sources . . . plus advanced engineering features for future 4-channel innovations, like discrete 4-channel broadcasting.

The new JVC receivers — 4VR-5436, 46 and 56 feature a built-in discrete CD-4 demodulator plus matrix decoder circuits with an automatic switching computer (4VR-5446 & 56) so you can play a mixed stack of CD-4 and matrix discs without making any adjustments. Each CD-4 receiver is equipped with JVC's patented Sound Effect Amplifiers that break the sonic spectrum into 5 bands so you exercise tonal control and complete freedom over sound in all crucial frequency ranges to compensate for room acoustics and individual tastes. Then there's JVC's Balanced Transformer Less Circuitry that links up the amps so that all four are used when playing 2-channel stereo for double the rms output power.

These are only a few of the many JVC innovations that reflect the ultimate in 4-channel engineering and performance. Get all the facts today. Write for your copy of this brochure. Use the handy coupon or visit your local JVC Hi-Fi Dealer. For his name and address, call this toll free number: 800-243-6000. In Conn., call 1-(800)-882-6500.



Compatible Discrete 4-Channel Record System



JVC America, Inc., 50-358 FORE CODY of the New JVC Brochure of the New JVC Brochure WC America, Inc. 50-35B soft Road, Mascett, New York 1378
Please send the CDA present, ine New York ACHANNEL
ORIGINATOR OF CDA present, in New York ACHANNEL
ORIGINATOR OF CDA present, in New York ACHANNEL

Address

City -

From any angle, this is the finest speaker system Jensen has ever designed

When a company with Jensen's reputation for outstanding speaker design tells you "this is the finest," then it's time to pay close attention.

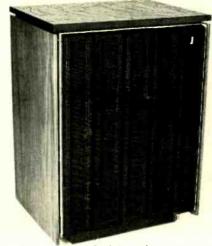
Model 15 was designed by putting our best brains together: an Engineering Group with 46 years of expertise and a brand new computer. The result is a superior refinement of the basic laws of physics, as they pertain to loudspeaker design.



The Inside Angle

The Jensen Engineers call their Model 15 sound design Total Energy Response. And it does just that Reproduce accurate sound with low distortion at all frequencies, over an extremely wide 170° angle of dispersion.

On the face of it, Model 15 is a 4 way, 5 speaker system. We use a massive 15" woofer with an 11 lb. Syntox-6" magnet structure. An 8" midrange. 5" tweeter. Two of our famous Sonodome" ultra-tweeters. And a perfectly calibrated 5" tuned port.



Model 15 has an outstanding 100 watt power rating. Yet it is so efficient that only 10 watts from a clean amplifier will fill an average room.

As for the computer, it played a big part in accurately giving our crossover network correct values required for the uniform power transfer and minimum phase shift that is so critical in multi-driver speaker systems.

There are even Tuned Isolation Chambers on the tweeters and midrange, to produce a linear phase shift throughout the crossover region.

Equally important, Model 15 incorporates Jensen's trademarked



foam Flexair® suspension, which allows maximum base excursion in a straight linear plane.

The overall result of all these features is a truly outstanding sound reproduction system.

The Outside Angles

Model 15 introduces an elegant approach to cabinet design. That's why it has a completely finished cabinet.

There is matched, hand rubbed walnut on the sides and back. The top has a look and feel of black slate, yet it's washable and stain



resistant. Even the baffle panel is finished. With a custom fitted, flared acoustical overlay. And there's a sculptured grill and black console base.

The Quality Angle

Jensen backs Model 15 (and all our Systems) with a full 5 year parts and labor warranty. Because we believe we build a quality product. And we're willing to back it up with a quality warranty.

Let'us send you a brochure with complete specifications on Model 15. Better yet, see your Jensen dealer. Either way you'll get the complete story. From every angle.

JENSEN SOUND LABORATORIES

DIVISION OF PEMCOR, INC. SCHILLER PARK, ILLINOIS 60176



Reviewed by CHRIS ALBERTSON • NOEL COPPAGE • PAUL KRESH • PETER REILLY • JOEL VANCE

ALLMAN BROTHERS BAND: Brothers and Sisters. Allman Brothers Band (vocals and instrumentals). Wasted Words; Ramblin' Man; Southbound; Jessica; Come and Go Blues; Jelly Jelly; Pony Boy. CAPRICORN CP 0111 \$5.98, ® M8 0111 \$6.98, © M5 0111 \$6,98.

Performance: Very good Recording: Very good

While recording their last album, the Allman Brothers lost their great slide guitarist, Duane Allman, in a motorcycle accident. While recording this one, they lost their bass player, Berry Oakley, in a similar accident in the same vicinity. Oakley appears in the first two tracks, with Lamar Williams playing bass elsewhere. The adjustment to the loss of Allman continues to flounder somewhat, but this album strongly suggests that the adjustment's name might be Chuck Leavell, who plays a rocking piano that knows how to get along with other instruments. Much of the album is given to a bouncier, more rhythm-conscious approach than was taken in earlier Allman work. This means guitarist Dick Betts, who was so adept at interweaving long, bluesy lines with Duane's slide, has to make some fine adjustments of his own. At times here, the only route open to him seems to be toward cool regions dotted with the identifying marks of various rock guitarists who kept edging into jazz until. . . . But he seems almost certain to lick that. The old idea of spearing into the night has not been shucked altogether, and

Betts proves he can still refine that sort of thing in such cuts as Southbound. He also does a fine job of singing here, especially Ramblin' Man, a song that puts unusual emphasis, for the Allman Brothers, on the vocal.



ASHFORD AND SIMPSON Masters of the black-pop genre

Gregg Allman's band-type vocals are good, as usual, but his organ is rather peripheral and sneaky. The new sound has some bugs in it; at times the whole band seems aimless and groping, the solos forced, and the song not quite worth it anyway. But most of the material is solid, and the band seems to be working hard and aiming, again, for very high places. N.C.

ASHFORD AND SIMPSON: Gimme Something Real. Nickolas Ashford and Valerie Simpson (vocals); instrumental accompaniment. Bend Me; Time; Have You Ever Tried It; Gimme Something Real; Can You Make It Brother; and four others. WARNER BROS. BS 2739 \$5.98, **8** M8 2739 \$6.98, **©** M5 2739 \$6.98.

Performance: Smooth Recording: Excellent

Nickolas Ashford and Valerie Simpson were the top staff songwriters for Motown after the departure of Holland-Dozier-Holland. Now Mr. A. and Ms. S. have made their departure for a tandem solo career as writers and performers. They still retain a great deal of the Motown sound, and the construction of their songs reflects the years they put in at the Detroit music factory. Their performances are smooth and highly professional. Their songs are extremely commercial, extremely black-pop, and not very good.

The appeal of black-pop to the white market (now the largest part of the total audience for it) stems from ethnic mystique and emotive performances. The songs of current black-pop really have very little to do with the effect of the sound on the listener. A certain type of guitar riff, a conga rhythm, some strings, and a male or female voice cooing and shouting, "Oooooo baby, yeeeesss!" has a most marvelous Pavlovian effect. I am never quite sure these days whether the emoting in black-pop is genuine or just good acting. Some of black-pop is exciting and rewarding, but, as with white rock, the greater part of it is run-of-the-mill stuff. "Ooooo baby, yeeess!" is no more uplifting than "Say, that's the cat's pajamas!" and I'm sure we would all get tired of hearing that if it were the cue to passion in approximately forty per cent of all hit records of the past three years.

But if you're crazy nuts about current black-pop, then you should hear Ashford and Simpson. If they are not masters of the genre, they have the formulas for it down pat. J.V.

ASLEEP AT THE WHEEL: Comin' Right at Ya. Asleep at the Wheel (vocals and instrumentals); other musicians. Take Me Back to Tulsa; Daddy's Advice; Before You Stopped Loving Me; Drivin' Nails in My Coffin; I'll Never Get Out of This World Alive; Space Buggy; and six others. UNITED ARTISTS UA LA038-F \$5.98.

Performance: Spastic pickin', plastic grinnin'

Recording: All right

Country swing bands such as Bob Wills and his Texas Playboys had a lot to do with the "and western" in "country and western." Although some of this flavoring got into Texan Ernest Tubb's more centrist-hillbilly mu-

Explanation of symbols:

(R) = reel-to-reel stereo tape

8 = eight-track stereo cartridge

© = stereo cassette

= quadraphonic disc

= reel-to-reel quadraphonic tape

= eight-track quadraphonic tape

C = quadraphonic cassette

Monophonic recordings are indicated by the symbol M

The first listing is the one reviewed; other formats, if available, follow it. sic, for years the only big-name performer who did much with the style was Hank Thompson. But with all the talk lately about Bob Wills as an influence, and the attendant hat-tipping by Doug Sahm, Merle Haggard, Dan Hicks, et al., I should have known a recording like this would happen eventually.

It isn't that Asleep at the Wheel is a bad band, necessarily-indeed, when country swing is played the way they play it, only a prime bunch of boobs can avoid sounding "competent" in the slick sense—it's just that Asleep has latched on to the excesses of the style, the surface glitter, the boppy tempo, the cool, jazzy, cocky attitudes, and has produced something of a comic strip. Lord knows, this can be a deadly boring form, even - sometimes-in the hands of a Hank Thompson. who sees the big picture and is interested in building something rather than exaggerating old tricks. For my part, I'd much rather hear a conscious caricature than something that has to be as coy about its own presumed sophistication as this does.

JIMMY CLIFF: Unlimited (see Best of the Month, page 86)

COMMANDER CODY AND HIS LOST PLANET AIRMEN: Country Casanova. Commander Cody and His Lost Planet Airmen (vocals and instrumentals). Country Casanova; Shall We Meet; My Window Faces the South; Rock That Boogie; Rave On; and five others. Paramount PAS 6054 \$4.98, ® M 8091 6054 \$6.98, © M 5091 6054 \$6.98.

Performance: **Greasy** Recording: **Okay**

The generation coming into its own now, buying-power-wise, has reduced the Working Class Mystique that so troubled Tom Hayden's contemporaries to its essentials—which, this generation seems to be telling us, involve no more than swilling beer until you pass out. And, oh, yeah, one more thing—having the "right" kind of music to go with that ritual. A lot of people who never bother to look anything up tend to credit Commander Cody and His Lost Planet Airmen with having invented this music, if you call that credit.

Well, for whatever it's worth, this is old stuff (and, as far as I can see, still as tired on "reawakening" as it was when it was put to sleep). People have been putting honky-tonk pianos and steel guitars together and singing with an attitude of veiled contempt for the material (which generally deserved it) for a long time, and some of the old-timers were a lot slicker at it than CC&HLPA seem likely to become.

This band does execute fairly well the things it can think up—except that its vocals are uniformly poor—but thinking up things is not its strong suit. The thing the group does best is to dig up old novelty songs such as Hot Rod Lincoln which someone else did a better job of presenting a long time ago (remember, the audience doesn't look these things up); in this instance, it's Smoke, Smoke, Smoke (That Cigarette), which Tex Williams, I believe it was, actually toked for a yuk or two many years back. I don't know where all this leads, unless it's around in circles I'd just as soon remain outside of.

ROGER COOK: Minstrel in Flight. Roger

Cook (vocals, guitar); Tony Newman (drums); Chris Spedding (guitar); Herbie Flowers (bass); Dave Wilkinson (organ); other musicians. Eating Peaches in the Sun; She; Sad Stoned; Grey Highlands of Dawn; The Power of Your Big Brother; Smoke; Would You Say I Love You?; Stay with Me; Mr. Magic Man. KAMA SUTRA KSBS 2069 \$5.98.

Performance: Top of the pomp Recording: Very good

Roger Cook doesn't do anything fancy, but he seems to have an instinct for doing the right thing when he reaches a song's critical point, and he, Roger Greenaway, and his other songwriting partners manage, usually, to take on the politics and sociology and other stuff of modern living without becoming too banal or condescending. Beyond that, the trademark of Cook's studio work is the pomp of sweeping,



ROGER COOK
Sweeping, intelligent arrangements

intelligently busy arrangements. There's a lot going on, but it always makes sense; if you play electric guitar for Roger Cook, you make such-and-such a sound to fill such-and-such a hole - you don't show us how you can go freewheeling almost as well as Clapton on long solos, inspired or otherwise. This album is more cohesive than Cook's "Meanwhile Back at the World," nowhere as good as that one's best moments and nowhere as bad as its worst. Eating Peaches in the Sun and the interplay of Cook's vocal and a harmonica (whose player is, damn it, not identified in the credits) in Sad Stoned seem to me the most impressive parts of an album that is fairly impressive throughout.

ARETHA FRANKLIN: The First Twelve Sides. Aretha Franklin (vocals); instrumental accompaniment. Won't Be Long; Over the Rainbow; Love Is the Only Thing; Sweet Lover; All Night Long; Who Needs You?; Right Now; Are You Sure; Maybe I'm a Fool; It Ain't Necessarily So; By Myself; Today I Sing the Blues. COLUMBIA KC 31953 \$6.98.

ARETHA FRANKLIN: Hey Now Hey (The Other Side of the Shy). Aretha Franklin (vocals); instrumental accompaniment. Hey Now Hey; Somewhere; So Swell When You're Well: Angel; Sister from Texas: and

four others. ATLANTIC SD 7265 \$5.98, ® TP 7265 \$6.97, © CS 7265 \$6.97.

Performances: Gimme that old-time Aretha!

Recordings: Very good It was a great day for all of us when Aretha walked into the studio and cut her first pop record for Columbia. She was eighteen at the time. Awaiting her were some of the best musicians in the business; there was Ray Bryant at the piano, in charge of a rhythm section that included Skeeter Best and Lord Westbrook as guitarists, Bill Lee on bass, Osie Johnson on drums. Tyree Glenn turned his trombone into a wry commentator on the musical proceedings. Sometimes Aretha took over the piano herself. And she sang. How she sang! She brought humor and the real feeling of jazz improvisation to Right Now, Today I Sing the Blues, Love Is the Only Thing, and Over the Rainbow with a starchy freshness that made every number into something purely and blithely her own. The sides were planned as singles for the jukebox trade. The rest of the bands on "The First Twelve Sides" were made in the course of the six months that followed. It is wonderful to hear the spontaneous quality of the whole collection. And Aretha's way with a song prompted in me, all

in the form of a fan letter.

But Aretha, as we all know, went on to become a Star. She is certainly one in her newest album from Atlantic, but something is lost. She must try too hard now, making a production out of everything, struggling amid the din to hold her own, sounding almost like a caricature of herself in the midst of the outsized stereo arrangements.

over again, the kind of admiration that once

led me to couch a review of one of her albums

Aretha still sits at the piano sometimes. She also writes her own tunes (Hev Now Hev, So Swell When You're Well, Sister from Texas), but they aren't memorable. She is also the producer, and she helped decorate the album cover. Quincy Jones has co-produced, encouraging everything to sound gigantic, with splashy colorations of musical orange and purple. That's the Way I Feel About Cha is typical: full of tricks and showy "soul" effects and artificial echoes. The real Aretha is lost amid the blare of it all. Somebody ought to listen once more to those first twelve sides, and seek out again that simplicity against which her own honest personality first shimmered and shone in song.

LEFTY FRIZELL: Sings the Songs of Jimmie Rodgers. Lefty Frizell (vocals, guitar); instrumental accompaniment. Blue Yodel Number 2; Brakeman's Blues; My Rough and Rowdy Ways; Treasure Untold; Blue Yodel Number 6; I'm Lonely and Blue; Travelin' Blues; My Old Pal; and three others. COLUMBIA M C 32249 \$4.98, ® CA 32249 \$6.98.

Performance: Fine Recording: Good old mono

Lefty Frizell's sweet, waxy voice has been misused a time or two, but his devotion to the music of Jimmie Rodgers has been one of the nicer constants of the country music scene. Frizell openly tried to imitate Rodgers' vocals at first, but his own very personal singing style emerged anyway. Anthologist Art Satherley demonstrates that with this tasty and tasteful reissue of 1951 and 1953 tracks, which Satherley and Don Law produced. Given their kind of production, the kind of songs Rodgers

wrote, and whatever he took to make himself sound so calm and confident, Frizell wasand is, even in twenty-year-old mono-hard to beat. His vocals are in the same spirit as Rodgers' originals, but Frizell brings his own, slightly warmer-blooded perspective with him. The instrumental backing is simply marvelous, although the members of the small country ensemble are not identified. Jimmie Rodgers probably was the greatest single thing that ever happened to country music. and these probably are the best "interpretations" of his music by any other singer. N.C.

GRATEFUL DEAD: Bear's Choice: History of the Grateful Dead (Vol. 1). Grateful Dead (vocals and instrumentals). Katie Mae; Dark Hollow; I've Been All Around the World; Wake Up Little Susie: and three others. WARNER Bros. BS 2721 \$5.98, ® M8-2721 \$6.98, © M5-2721 \$6.98.

Performance: For true believers Recording: Excellent

In terms of repertoire, this is a retrospective album - in lieu of one titled "Greatest Hits." since the Dead like to believe they haven't had any hits. They are a "prestige" group who believe their commercial success is a direct result of their communication with the people. They are a cult band, really, although the cult is large enough to have done well by them. The tunes included here are among those that the band and their roadie, "Bear," believe represent the group's quintessence.

This is a "live" recording of two concerts done at the late Fillmore West on February 13 and 14, 1970, but I am bound to say that side one could have been recorded ten years ago: the material (blues, country, Everly Brothers rock), the performances, and the stage patter are all circa 1960 folkie. The acoustic efforts are all right, and sometimes good, but they give one the feeling of Past Shock. An example of the patter: a Deadmember (with a mellifluous voice that might have belonged to one of the Kingston Trio) says, "I'm attaching a nefarious device called a 'cheater.' 'In other words, he's putting a capo on his guitar. Folkies of the late Fifties and early Sixties always pretended to be embarrassed about using them: it was a standard line. Ah, the dear old days.

But I digress. Side two is the electrified Dead ploughing through two long cuts. Now, I have heard that the Dead are a great band, and they are certainly well-rehearsed. But I doubt that many of the Fillmore crowd that cheered their version of Smokestack Lightnin' had heard the thundering original by Howlin' Wolf. Really, there is no comparison. By the time the Dead get to the next cut (Smokestack runs eighteen minutes). Hard to Handle from the Otis Redding catalog, one's patience is exhausted. Mine is, anyway. Cult bands like the Dead are like cult religious groups (California abounds in both): the faithful are rigidly devoted and the doubters don't count. Okay; count me out.

RICHIE HAVENS: Portfolio. Richie Havens (vocals and guitar): orchestra. Woman; 23 Days in September; Tight Rope; What's Going On; and five others. STORMY FOREST SFS-6013 \$5.98, **8** 8116-6013C \$7.95, **©** 5116-6013C \$7.95.

Performance: Strong Recording: Excellent

It takes a very strong performer indeed to re-

vive such a piece of commercial Weltschmerz as Ervin Drake's It Was a Very Good Year (seemingly patented by Frank Sinatra in his original recording of it several years ago) and to be able to breathe new life into it. But Richie Havens does just that on this new album; in his way, he is as distinctive as Sinatra, and his version places the accent on bitter acceptance rather than on the golden-autumnalglow sentimentality that both the lyrics and Sinatra's performance emphasize. Good as this is, however, I much prefer Havens in his own material, such as Woman or Dreaming My Life Away. There is a troubled, troubling hint of spiritual darkness in these songs. His guitar, however, seems to have a life force of its own, so that the possibly depressing always remains at the level of a strong statement, no matter how brooding. It's difficult for me to say that I like to listen to Havens, but I can hear what his admirers are so enthusiastic about. Still, for me, it is like reading T. S. Eliot on a sunny day: suddenly the day doesn't seem so sunny any more.

The extraordinarily lavish packaging encloses ten original Havens lithographs.

CLEO LAINE: I Am a Song (see Best of the Month, page 87)

SPECIAL RECORDING OF MERIT

STEVIE WONDER: Innervisions. Stevie Wonder (vocals and instrumentals): accompanying musicians. Too High: Visions: Living for the City: Golden Lady; Higher Ground: Jesus Children of America; All in Love Is Fair; Don't You Worry 'bout a Thing; He's Misstra Know-It-All. TAMLA T-326-L \$5.98.

Performance: Superb Recording: Excellent

Stevie Wonder's musical progress, since he declared his artistic independence from the standard "Motown Sound" a few years ago, has been one of the most heartening and fascinating developments in pop music. Wonder is a first-class melodist: he is a composer whose construction of his melodies shows a craftsman's touch; his lyrics get a story told; he has a distinct style as a keyboardist and harmonica player and is one on the best men on either instrument; as a singer he has range, power, and sincere depth of feeling. He flings his talent joyously at the listener with high energy and a sense of camaraderie.

"Innervisions" is a stunning album. Taken as a whole, it is a modern work of popular art. Of the individual pieces, Living for the City is a concerto, the story of a Mississippi black who comes to New York and finds out he's in worse trouble up North than down home. It is not a diatribe; it is a cold-fact recital. Jesus Children of America is Wonder's way of saying that religious feeling is fine as long as it's genuine and not just a passing fad, a symptom of a longing to be converted temporarily to something. Visions is a poem about individual identity and peace of mind. Misstra Know-It-All, about a Superfly-type dude who is really. like John Lennon's song character, a "nowhere man," combines the feel and power of Hey Jude with Marvin Gaye's Inner City Blues. Both Too High and Higher Ground are examples of Wonder's wonderful mixtures of jazz, pop, and soul styles. Listening to them is like watching a parade - you just can't help being fascinated by the variety, color, and spirit of it all.

(Continued on page 95)





CIRCLE NO. 6 ON READER SERVICE CARD

(202) 832-1616

3310 NEW YORK AVE. N.E.

WASHINGTON, D.C. 20002

ITS AS FARAS YOU CAN GO.

IF YOU'RE UP WITH WHAT'S HAPPENING IN THE HIGH-FIDELITY INDUSTRY
YOU'LL KNOW HARMAN/KARDON IS CURRENTLY PRODUCING THE WORLD'S
MOST ADVANCED RECEIVER LINE.

THIS 900+ IS THE CREAM OF THAT LINE.

IT CARRIES BOTH DISCRETE AND MATRIX FOUR-CHANNEL CIRCUITRY. SO

IT WILL REPRODUCE EVERY TYPE OF QUADRIPHONIC MUSIC AVAILABLE. MOST FOURCHANNEL RECEIVERS CARRY ONLY ONE.

THE 900+ PUTS OUT AN ASTONISHING 32 WATTS PER CHANNEL,

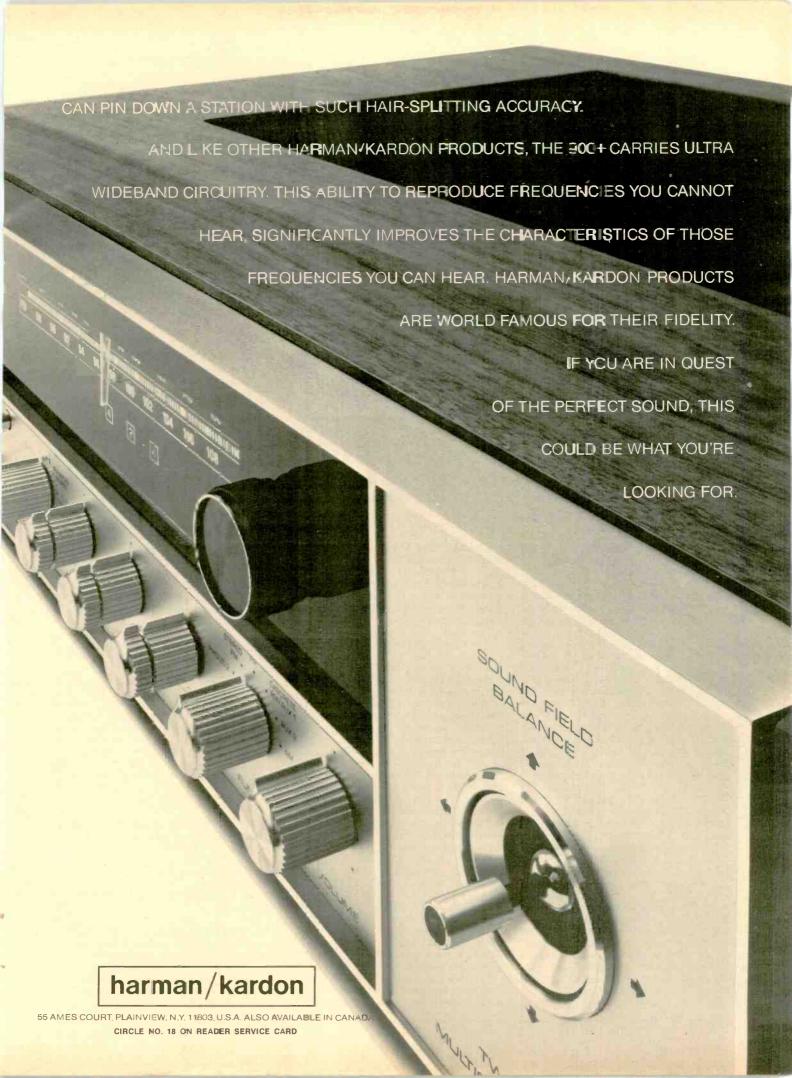
CONTINUOUS, WITH ALL CHANNELS DRIVEN SIMULTANEOUSLY. THAT'S A GOOD DEAL

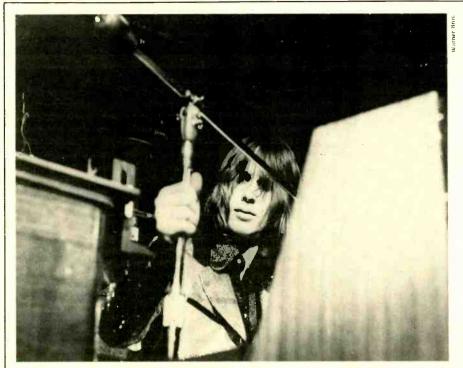
MORE POWER PER CHANNEL THAN MANY STEREO RECIVERS CAN MUSTER.

THE 900+ DOES NOT WEASEL THROUGH THE PROBLEM OF STEREO
RECORD REPRODUCTION BY MERELY SHUTTING OFF THE TWO REAR SPEAKERS.

INSTEAD, IT USES A UNIQUE PHASE SHIFT NETWORK TO PRODUCE AN ENHANCED
STEREO SOUND THROUGH ALL FOUR SPEAKERS. YOUR STEREO RECORD LIBRARY
WILL SOUND BETTER THAN EVER.

BUILT INTO THIS REMARKABLE MACHINE IS AN ANALOG COMPUTER THAT DISTINGUISHES BETWEEN MUSIC AND NOISE ON FM SIGNALS. NO OTHER RECEIVER





TODD RUNDGREN, PRODUCER

Two recent efforts indicate that, although he's still a contender, he doesn't hold the title yet

By Jon Tiven

NCE again, the eyes of many in the pop world are focused upon the diminutive frame of Todd Rundgren, Philadelphia's best-known graduate of the School of English Rock. Todd originally got his licks in with an ersatz-British combo known as the Nazz, which he dissolved in order to concentrate on production chores for a few choice solo artists. He soon styled himself "the Runt," derived from both his size and surname, and managed to turn that handle to the service of building a minor legend by producing successful albums for The Band ("Stagefright"), Paul Butterfield ("Live"), Badfinger ("Straight Up"), and Fanny ("Mothers Pride"), and a single for himself (We Gotta Get You a Woman). But Todd's solo efforts, despite much critical acclaim, have not really clicked with the mass public, and so lately he has decided to pay his Granny Takes a Trip haberdashery bills by again producing albums for others.

Such projects can be precarious for all parties involved. The artist/producer is often hesitant about revealing well-guarded studio secrets to the group with which he's working, and he may therefore maintain a laissez-faire policy when it comes to contributing musical ideas. The reason for this is obvious: the artist/producer, especially if his name is not yet a household word, simply cannot afford to dole out his ideas to a group when he has to concern himself with his own musical future as well. A full-time producer, on the other hand, is anxious to build his own reputation as such, and is usually bubbling over with creative suggestions. Given all this, Todd's latest efforts stack up fairly well, although when examining the two new

albums that have resulted—Grand Funk's "We're an American Band" and the debut of the New York Dolls—one has to take each as a separate case: not only are the groups themselves radically different, but Todd demonstrates two entirely different production techniques.

The Dolls' album is more or less a vinyl representation of where the group stands musically-at least as they've displayed themselves in their concert performancesand as such it is faultless. What we get is solid rock-and-roll (with the exception of Lonely Planet Boy) heavily influenced by the Rolling Stones, the Who, and an assortment of English bands. For the most part, Todd serves strictly as studio technician, crossing the guitars from speaker to speaker at just the right moments, making the drums sound like garbage-can lids on Trash, and in general giving the group as "live" a sound as possible. There is one track, though, on which both Todd and the Dolls manage to pull out all the stops. Frankenstein, the album's centerpiece, has the guitars imitating lawnmowers as well as executing some incredible special effects, and the resultant Spector-ized wall of sound is guaranteed to knock you across the room. The point is, though, that there's hardly any of Rundgren in the Dolls' record, which must be counted an asset: Todd's venture here is a success because it sounds just like the New York Dolls. Providing he's got something substantial to work with, as in this case, this should be a producer's ultimate goal.

Unfortunately, Todd's work with Grand Funk can, for the very same reasons, be seen as nothing less than a failure, albeit an understandable one. Rightly or not, he apparently felt that Grand Funk's hard rock was vapid, and he has cast them instead as a soul band: the production features lots of echo on Mark Farner's vocals and a heavy accent on the Funk part of their name. The result is a bland and pretentious album sounding more like a Rare Earth retread (one almost expects Farner to break into I Just Want to Celebrate when the title song's chorus comes around) than the loud metallic combo teenage America is used to.

There are, of course, some positive aspects to this when one takes a close listen to the record's mix and overall "feel." For one thing, Rundgren has all but eliminated Farner's guitar from the picture as anything but a special-effects solo instrument; this is most helpful, for one of the most annoying things about Grand Funk in the past has been their constant, bludgeoning rhythm guitar. The solos themselves are much tastier than the leads Farner has dished out previously; clearly Todd has taught the boys something about dynamics and harmonic theory. With the guitars soft-pedaled, Craig Frost's keyboards dominate the nonvocal portions of the album, and although they're not exactly brilliant, at least you can't put a fuzz-tone on an organ. (Either that, or Todd simply would not allow them to, in which case he deserves a medal.)

The real problem here, of course, is not so much the band's lack of instrumental ability (which Todd has more or less managed to compensate for) as it is inadequate songwriting. The material, despite the valiant production effort, comes off by and large as either limp white-soul pastiches (Stop Looking Back), Humble Pie discards (Creepin'), or simply the old game of Ten Years After plagiarism (Walk Like a Man). The thing for Grand Funk to do, clearly, is find themselves a more clever studio hand who can mold them into a vehicle for other people's material

A LL in all, with both these records, Rundgren has amply demonstrated that he has more ability to make a group sound like an accurate representation of itself than almost any other producer except Jimmy Miller or Glyn Johns. But until he can be a producer with a sound all his own (something that his solo efforts have been long on), he'll never really be a Phil Spector or an Andrew Loog Oldham, which, I suspect, is what he really wants to be. It's my guess that he has it in him, but we'll still have to wait and see.

GRAND FUNK: We're an American Band. Grand Funk (vocals and instrumentals). Creeping: The Railroad; Black Licorice: Loneliest Rider; Walk Like a Man; Ain't Got Nobody; Stop Lookin' Back; We're an American Band. Capitol SMAS-11207 \$5.98. ® 8XW-11207 \$6.98. © 4XW-11207 \$6.98.

THE NEW YORK DOLLS. The New York Dolls (vocals and instrumentals). Personality Crisis; Looking for a Kiss; Vietnamese Baby; Lonely Planet Boy; Frankenstein; Trash; Bad Girl; Pills: Private World: Jet Boy. MERCURY SRM 1675 \$5.98. ® MC8 1675 \$6.95, © MCR4 1675 \$6.95.

Ah, but I have saved the best news for last. It is an exquisite ballad, surely one of the best written in the last twenty years: All in Love Is Fair. All of Wonder's gifts have been locked into this tune, and he gives a moving performance. It is the stand-out piece in this collection of stand-outs, and further proof that Stevie Wonder is a national asset.

J.V.

RECORDING OF SPECIAL MERIT

JESSE COLIN YOUNG: Song for Juli. Jesse Colin Young (vocals, guitar): Jeffrey Myer (drums): Scott Lawrence (piano, vibes); Earthquake Anderson (harmonica): Jim Rothermel (woodwinds); other musicians. Morning Sun; Song for Juli; Ridgetop; Evenin'; Miss Hesitation; T-Bone Shuffle; Lafayette Waltz/Jambalaya; Country Home. WARNER BROS. BS 2734 \$5.98. ® M8 2734 \$6.98. © M5 2734 \$6.98.

Performance: Improving Recording: Very good

The only time I saw Jesse Colin Young and his post-Youngbloods band, they were virtually blown out of the gym by the preliminary act, an unknown Massachusetts group called Good Friend Coyote. It wasn't directly Jesse's fault: his roadies took a ridiculous length of time setting up some microphones that turned out not to be working anyway. This album is much better than that debacle. of course, and considerably better than the last two or three Youngbloods albums. It appears that Young has found the direction he sought, with just enough jazz in it to prevent his own boredom (he knows a lot about singing and likes to learn by doing), but not enough jazz in it to bore the audience. At least not usually. He makes a smart move by starting with Morning Sun, which sounds like Midnight Special, which means the listener doesn't have to track something totally unfamiliar right off the bat. To personalize it, Young has inserted one jazzy change, just so. His affinity for jazz shadings does more harm than good in only one track, Ridgetop, in which the horns become just too much.

Miss Hesitation is the most fun, starting out with a storytelling lyric and a country beat and gradually coagulating into a satire of several kinds of music. Young grafts a ridiculous jazz-structured bridge in there, and each time he crosses it he emerges with the verse done up in a different style. The words, meanwhile, lose their linearity and sort of collapse in a resigned dadaist jumble. Appropriately, the whole thing ends in a fit of Dixieland.

Young is an exceptional vocalist and a decent songwriter, but in the past he hasn't seemed able to focus his powers. This could be the start of something.

N.C.

COLLECTIONS

THE BOB WILLS ANTHOLOGY: Bob Wills and His Texas Playboys. Produced in collaboration with the Country Music Foundation; album research conducted through the facilities of the Country Music Hall of Fame and Museum, Nashville, Tenn. COLUMBIA KG 32416 two discs \$6.98.

Performance: Exuberant Recording: Dated, but decent

Ever since I began to listen sympathetically to country music, which was when I bought my first Jimmie Rodgers album some fifteen years ago, I have been hearing and reading about a country-music variant called "western swing," almost always associated with the name of Bob Wills. It is usually described as a hybrid, part country music, part jazz, that flourished in the Southwest, primarily in Texas and Oklahoma, in the Thirties and early Forties. But it is easier to read about than to thear—or it has been until now, when, thanks to the collaboration of Columbia Records and the Country Music Foundation, we have this two-disc Bob Wills collection.

It is fascinating, not so much for the quality of the music, which is never less than professional, but for its idiomatic and stylistic variety, for the picture it gives of the interaction of a number of American musical forms—mainstream popular, country ballads and dances, Dixieland, swing, and blues—in a rural part of the country suddenly exposed to urban and suburban America by radio, moving pictures, records, and migration.

This anthology covers the twelve years (1935-1947) when Bob Wills and his Texas Playboys recorded for Columbia. Its twenty-four tracks are chronologically assembled; included are four tunes never previously reissued and five that were never issued at all. The otherwise richly informative and unfortunately repetitive liner notes by William Ivey, executive director of the Country Music Foundation, do not identify these records.

Bob (James Robert) Wills was born on a farm in Limestone, Texas, in 1905. He was a fiddler, and the nucleus of his bands—including the Aladdin Laddies, a house band for Pappy O'Daniel's Burrus Mill & Elevator Co. of Fort Worth—was made up of fiddle, banjo, guitar (both steel and standard), bass, piano, and drums. This instrumentation eventually matured in the Texas Playboys, which included trumpets, trombones, clarinet, and saxes, the complement depending upon the repertoire—and, probably, vice versa.

Wills, on these tracks, would seem to have been an absorber rather than an innovator. Measuring the music against the recording dates, one is again and again astonished-at least I was-to find the date as late as it was. The first truly big swing-band sound, for instance, is on Big Beaver, which, recorded in 1940, was a bit late in the game. The case is similar with several others, of later date, which suggest Glenn Miller. Even earlier tracks which (in the mid-Thirties!) evoke a Dixieland sound seem about a decade behind the times. It would appear, in other words, that Wills' role in country music-and these tracks demonstrate that, for all the catholicity of his tastes and enthusiasms and his eagerness to experiment, he never deserted his country string band roots-was that of a filter through which contemporary urban sounds worked their way into the country idiom.

The liner notes, as I have remarked, are informative, and the discographical detail extensive. If they seem to give the impression that western swing was exclusively the creation of Bob Wills, the interested listener is directed to Will C. Malone's encyclopedic Country Music U.S.A. (p. 171 ff.) for a more comprehensive coverage, especially with regard to pioneer steel guitarist Bob Dunn.

"The Bob Wills Anthology" is the first of a series being undertaken by the Country Music Foundation. Reviewed in this issue is "Lefty Frizzell Sings the Songs of Jimmie Rodgers." A miscellany of others in western swing would be welcome. Henry Pleasants

(Continued on page 98)



CIRCLE NO. 33 ON READER SERVICE CARD





Poco minus one: left to right. Richie Furay, George Grantham, Rusty Young, Jim Messina (rear)

POCO IN RETROSPECTIVE

Blended style and puréed content Reviewed by Noel Coppage

OU'VE no doubt heard the argument that style is content, formerly known as it ain't hotcha do it's the way hotcha do it and more recently celebrated as the smallest idea that ever sustained a man like Marshall McLuhan through several books. It was a good argument in the late Sixties, but the turn of the decade has tarnished it a bit. Lately I've been thinking about this-and about how much harder it seems these days to argue one side without seeing just as clearly the good points on the other sidewhile going back through the albums of Poco, a rock band particularly close to the pole, close enough to be scraped, at that turn of the decade. Poco seems to have one foot planted in a culture that looked to style for content and one foot in a culture that looks to content for style.

Here we had, from the beginning, striking vocal harmonies, fabulous fingers, admirable showmanship, and that intangible affinity for playing together that so many rock bands lack—and it took them five albums to record two strong cuts back-to-back. Marvelous equipment for saying it, but precious little to say. But wait.

We're in the Seventies, remember, and Poco arose from the ashes of the Buffalo Springfield in the late Sixties. Now we seem to be entering a phase of emphasis on content: fads and fashion are bad-mouthed and substance is all the rage. I haven't had the urge to thumb through Women's Wear Daily in months, and you wouldn't believe how many people now tell me they no longer care how wide lapels are supposed to be. But in the late Sixties people cared about that sort of thing: that was the era of endless, ardent conversations about "lifestyles," of such movie titles as You Are What You Eat and such album titles as "What You See Is What

You Get," the era of splashy plaids next to funny dots, silly Nehru jackets and unisex things . . . an era when even your average redneck deputy sheriff was giving in to an irresistible impulse to grow longer sideburns. It was style this, style that—you couldn't look down a manhole without getting an eyeful of it. Like the Communist Menace of the Fifties. it seemed likely to hop into the bathtub with you pretty soon.

A compelling force it was, too, for groups such as Poco. For one thing, style demanded that pop stars write but, being style, wasn't concerned with what they wrote. It demanded that the audience not be overly concerned about that either, the audience's obligation being to nurture the thesis, formed by intellectuals and car hops, that rock music, by God, was an Art Form, just about, or would be any day now.

O Poco dashed off a few tunes, and then performed them with shiny-bright youknow-what-in the performance end of things, style was unambiguous in its demand. Poco had the necessary distinctive sound. Jim Messina, who had edged his way into the Buffalo Springfield as a bass player from a position as engineer on a couple of albums, edged still further to the position of Telecaster (semi-official scepter) bearer, or lead guitarist, in this new group he and Richie Furay were forming. Furay, the first musician Steve Stills called in when the Buffalo was conceived, continued to use his guitar mainly as a prop, but his vocals became increasingly forceful and reliable. Rusty Young, a flamboyant pedal-steel player recommended by Jerry Garcia, didn't sing or write much, but it was his instrument that put the final touches on Poco's sound. And sad-eyed handsome George Grantham sang

angelic high harmonies and didn't seem to mind that Poco's need for a country beat made his drumming seem stodgy and mechanical. At first there was no regular bass player: Randy Meisner played bass and did some singing on the first album, but Timothy B. Schmitt joined as bass-player/singer in time for the second. His bass was pretty agile for that country beat, but he got away with it, the main thing about him being the high-pitched little-boy voice he had and what that would do to those harmonies. Together they were all steely and open and cloud-raking harmonies—somehow, people said, somehow above the fray.

Well, yes, compared to the explosion-aday routine the festering Buffalo Springfield egos had perfected - but it may dawn upon some of us in the Seventies that Poco's songs never dealt with the fray, or anything else much, aside from nice days and groovy feelings. There was, however, something soothing about the country-and-western aspect of their sound, and in fact they were helping ease everyone into rock's country connection, which was to be so prominent later. In the Sixties, Neil Young's reputed exertion of "country influences" on the Buffalo was regarded as an attractive anomaly; any intellectual would tell you that country music wasn't going to help rock become an Art Form. And, well, it didn't, did it? But Poco did presage closer relationships between country and rock.

So the first album. "Pickin' Up the Pieces," was packaged in cowboy-nostalgia drawings and credit lines showing that all the members but Furay (who's from Ohio) were from Western states. "Poco" itself is Western-sounding, being a Spanish word. It means "little" or "few," and is often used in such idiomatic expressions as "es muy

poco," or "that is not enough." Its selection as a band name-for sound rather than meaning - would seem another triumph of style over content. The album relied heavily upon Young's pedal steel guitar to put the signature on the sound. Furay wrote most of the songs, of which the title tune and its phrase about a "little bit of magic" became a motif for priming concert audiences for a long time-and Poco, athletic and attractive, always could do a lot with a primed live audience. First Love had a catchy phrase in its melody, as did Just in Case It Happens, Yes Indeed and Consequently, So Long (not to be confused with Anyway Bye Bye in the second album), but only the title song had what you could call a sustained melody. The lyrics said practically nothing.

HE second album, "Poco," had a cover designed after the label on an orange crate, orange crate art being hot stuff for a few days there. It also had the other pickers asserting themselves beside Young-and getting a bit pretentious about their new-found prowess: most of side two was taken up by a remake of Furay's Nobody's Fool-notable on the first album only because of some tonic eccentricities that went well with one of Rusty's tricks, making his pedal steel sound like an organ - which bled into El Tonto de Nadie (Spanish for Nobody's Fool), an aimless jam "written" by the whole group. Such jams, you'll recall, helped embolden members of the audience to the point of saying, "Enough," and "The emperor hath no clothes," and such things. The only song in 'Poco" that actually demands that I give it a hearing is a country thing by an outsider, Dallas Frazier, attractively titled Honky Tonk Downstairs.

'Deliverin'," the live album, followed, recorded at the Boston Music Hall and at New York's Felt Forum. Unlike most live albums, it contained several songs, such as they were, that hadn't appeared on the earlier albums. It was a loose, rollicking disc, with Rusty's pedal steel sounding more like a pedal steel and sounding a lot, but it didn't say anything about where Poco was going. It merely demonstrated how excited the audiences got. This was Jim Messina's last recording with Poco; he wandered off to reappear beside Kenny Loggins. It seems odd, in view of how assured his vocals are now, but Messina didn't assert himself as a singer with Poco. Perhaps he didn't want to risk an ego clash with Furay, having seen how Richie, nominally the lead singer of the Buffalos, had been thoroughly wetted down by the vitriol spurting back and forth between Steve Stills and Neil Young.

"From the Inside" was an adjustment album, with Paul Cotton replacing Messina on lead guitar and Steve Cropper replacing Messina as producer. It was very dull. A combination of small things seemed to spotlight the big thing—lack of substance, again, in words and music. In 1971 that wasn't as forgivable as it once was.

A ND then, finally, Poco turned the corner and made a commitment to the Seventies. Jack Richardson, producer for the Guess Who, came in to help with that. Jim Mason is listed as co-producer of the fifth album, "A Good Feelin' to Know," but Richardson generally is credited with engineering the

change in course. "Good Feelin" has the instrumentals bunched into more rock-like formations, providing an effective contrast for the rake and linearity of the vocal harmonies and challenging Rusty Young to make still more non-country sounds on that Thing he plays. Richardson also dug up Stills' Go and Say Goodbye, written in 1966, and Epic promo writers conveniently forgot about that Dallas Frazier tune in the second album in order to boast (1972 being quite different from 1969) about how this was the first "non-original material" the group had recorded. It wasn't one of Stills' most original songs, at that, but it lent itself to one of Poco's best arrangements. The album, especially side two, was strong in both style and content. Cotton's Early Times was his first notable songwriting effort, and Furay's title song-while still not about anything much beyond the usual good vibes - easily replaced Pickin' Up the Pieces as the penultimate Poco song: catchy, optimistic, fairly built for enhancement by metallic slides and vocal shimmers. Richie's Sweet Lovin' ended the disc with an upward-reaching choral glory bath and still more substance of melody—and with lyrics, apparently inspired by the birth of his daughter, that seemed to have come from somewhere other than that handy cliché bank at his elbow.

R ICHARDSON tapped Stills' band Manassas for personnel - Chris Hillman, Paul Harris, and Joe Lala-and looked to outside writers again (the late Gram Parsons for Brass Buttons and J. J. Cale for Magnolia) to help in Poco's latest, "Crazy Eyes," He also paid out George Grantham's leash a bit more, and George responded with some crisp hits. This is the album in which not only Poco's material but (surprise) Poco's arrangements find the depth and substance they had been missing. "Good Feelin" hadn't quite dealt with that, for it still treated 'way of playing" as a separate (though no longer more-than-equal) component of the music, as if style were a cream you could skim off. "Crazy Eyes" treats style more like a saturating compound. Rusty lays back a lot - and then, particularly in the "non-original material," finds new ways, not just organlike ways, to relate his pedal steel to the content, the integrity of the music. Cotton's lead work is further refined and seems thoroughly integrated with band and song; Schmitt's bass is a bit sneakier and more economical, and the licks from (surprise) that other guitarist, an improving picker named Furay, do come in handy. The songs, by and large, are worthy; the lyrics still aren't the greatest, but these songs build on what had been a latent asset - a knack for sketching tone colorations with subtly checked adrenalin. This makes the long title song work; when the instrumentals penetrate and absorb the way Poco's instrumentals do now, there's something there for them to mix with. There are, of course, a few dead spots, most of them in the last selection, Let's Dance Tonight, but "Crazy Eyes" has quickly become my favorite Poco album.

Of course, I see the other side of that, too, damn it—the other side being that I may be such a prisoner of the times that this latest thing is bound to sound better to me now because it's the latest thing. But before I get myself completely immobilized with such

thoughts, let's see if we can't conclude that Poco has, finally, blended style and content into a nice purée. It's still recognizable as the band that rode a pedal steel out of California to pick up the pieces, but it is truly a veteran, secure, professional outfit now-at least according to the way we use those adjectives in the Seventies, and assuming that the just-announced departure of Richie Furay doesn't throw things totally out of whack. My fondness for the latest album is still increasing; it's more complex than the other albums, but in what seems a simpler way. It seems to summarize Poco, without recapping the boring parts at great length, and to signal their escape from the pinch and shriek of the great hinge at that ol' pivot point between the Sixties and the Seventies.

POCO: Pickin' Up the Pieces. Poco (vocals and instrumentals); Randy Meisner (bass, vocals). Foreword; What a Day; Nobody's Fool; Calico Lady; First Love: Make Me a Smile; Short Changed; Pickin' Up the Pieces; Grand Junction: Oh Yeah: Just in Case It Happens, Yes Indeed; Tomorrow; Consequently, So Long. EPIC BN 26460 \$4.98, ® N18 10192 \$6.98, © N16 10192 \$6.98.

POCO. Poco (vocals and instrumentals); Larry Knechtel, Bobby Doyle (keyboards); Milton Holland (percussion). Hurry Up; You Better Think Twice; Honky Tonk Downstairs; Keep On Believin'; Anyway Bye Bye; Don't Let It Pass By; Nobody's Fool|El Tonto de Nadie. EPIC BN 26522 \$4.98, ® N18 10258 \$6.98, © N16 10258 \$6.98.

POCO: Deliverin'. Poco (vocals and instrumentals). I Guess You Made It: C'mon; Hear That Music; Kind Woman; Hard Luck; Child's Claim to Fame; Pickin' Up the Pieces; You'd Better Think Twice; A Man Like Me; Just in Case It Happens, Yes Indeed; Grand Junction; Consequently, So Long. Epic KE 30209 \$5.98, ® EA 30209 \$6.98, © ET 30209 \$6.98.

POCO: From the Inside. Poco (vocals and instrumentals); J. Spell (piano). Hoe Down; Bad Weather; What Am I Gonna Do; You Are the One; Railroad Days; From the Inside; Do You Feel It Too: Ol' Forgiver; What If I Should Say I Love You; Just for Me and You. EPIC KE 30753 \$5.98, ® EA 30753 \$6.98. © ET 30753 \$6.98.

POCO: A Good Feelin' to Know. Poco (vocals and instrumentals): Barry Flast (piano). And Settlin' Down: Ride the Country; I Can See Everything; Go and Say Goodbye; Keeper of the Fire; Early Times; A Good Feelin' to Know; Restrain; Sweet Lovin'. EPIC KE 31601 \$5.98, ® ER 31601 \$6.98. ® EA 31601 \$6.98.

POCO: Crazy Eyes. Poco (vocals and instrumentals); Chris Hillman (mandolin); Paul Harris (piano); Joe Lala (percussion); Billy Graham (fiddle); other musicians. Blue Water; Fool's Gold; Here We Go Again; Brass Buttons; A Right Along; Crazy Eyes; Magnolia; Let's Dance Tonight. EPIC KE 32354 \$5.98, ® EA 32354 \$6.98, © ET 32354 \$6.98.



RECORDING OF SPECIAL MERIT

IVIE ANDERSON: Duke Ellington Presents Ivie Anderson. Ivie Anderson (vocals); Duke Ellington and His Orchestra. It Don't Mean a Thing (If It Ain't Got That Swing); Love Is Like a Cigarette; All God's Chillun Got Rhythm; I'm Checkin' Out Goombye; Stormy Weather; and twenty-seven others. COLUMBIA M KG 32064 two discs \$6.98.

Performance: Swing songs swung Recording: Good mono

Ivie Anderson sang regularly with the Duke Ellington band from 1931 to 1942. Like Baby Cox and Adelaide Hall, who preceded her. Miss Anderson gave Ellington a voice and style that seemed tailor-made; since her departure, seven years before her death, there hasn't been an Ellington vocalist who could compare with her.

The recordings in this collection, made between 1932 and 1940, mirror a gradual but distinct development of orchestra and singer, underlining Miss Anderson's ability to match Duke's growth. In a sense, they also reflect Harlem during the pre-War period: there are the famous It Don't Mean a Thing (If It Ain't Got That Swing), a manifesto issued in 1932 and adhered to by Duke ever since; the 1933 Depression reality of Raisin' the Rent; a 1935 song, Truckin', immortalizing a dance craze of more optimistic days that had the happy feet of the Savoy Ballroom stomping. Then, of course, there are such Ellington standards as Solitude and Mood Indigo, Miss Anderson handled her varied repertoire with a velvetsmooth ease an army of Swing-era singers sought to emulate, and she literally wove her words into the warp and woof of the Ellington orchestral fabric.

Some of the better-known tracks in this album are already available as part of Columbia's two-volume Ellington Era box sets, but it's good to have them all under one cover. Ivie Anderson also cut some ten sides with Ellington for Victor, and a dozen selections were made under her own name for the Excelsior and Black and White labels—let's hope they, too, find their way to the market before long.

C.A.

RECORDING OF SPECIAL MERIT EARL HINES/JONAH JONES: Back on the Street. Jonah Jones (trumpet); Earl Hines (piano); Buddy Tate (clarinet, tenor saxophone); Cozy Cole (drums); John Brown (bass); Jerome Darr (guitar). I'm in the Market for You: Rose Room; Sleepy Time Gal; and four others. CHIAROSCURO CR 118

Performance: Summit meeting Recording: Very good

This is the kind of timeless, unpretentious

jazz Stanley Dance gave the "mainstream" tag to over a decade ago, and, performed by some of its greatest exponents, it is predictably excellent. Jonah Jones, who led a fantastic little band with violinist Stuff Smith at the Onvx Club back in the days of The Street (52nd Street) and made a comeback with a series of commercial recordings for Capitol in the late Fifties, still plays superb trumpet in a style that lies somewhere between Armstrong and Roy Eldridge, Basie alumnus Buddy Tate also evokes the 52nd Street era with tenor statements that range in texture from velvet to sandpaper but are never out of place. Pianist Earl Hines, who secured his top rank in jazz almost fifty years ago with dazzling virtuosity on some of Louis Armstrong's Hot Five recordings, simply keeps getting better. Cozy Cole, with forty-three years of recording behind him, shows no signs of losing his touch. Joining this all-star cast are guitarist Jerome Darr and bassist John Brown, two reliable musicians who help make this a most enjoyable, relaxed summit meeting. C.A.

CLAUDE HOPKINS: Crazy Fingers. Claude Hopkins (piano). Safari Stomp; Crazy Fingers; Indiana; Late Evening Blues; I Would Do Anything for You; and seven others. CHIAROSCURO 114 \$5.98.

Performance: Another good round Recording: Good

Claude Hopkins' musical career began fifty years ago with Wilbur Sweatman's orchestra, and he has spent some thirty years leading big bands without achieving as wide a recognition as he deserved in that field. Last year Hopkins recorded his first solo piano album-for the Sackville label - revealing a talent that since the early Fifties has been entombed in crowd-pleasing Dixieland bands. Now, in his second solo album, the veteran jazzman strides just as delightfully as he did on the first, but the two sets are too similar. For one thing, three tunes are duplicated, and Hopkins' approaches to the second versions are not fresh enough to warrant this. Since two competing labels are involved, the culprit here is, of course, Mr. Hopkins, who does himself a great disservice by the repetition. Another tune, Late Evening Blues, also seems to be on both albums, but it turns out to be two dif-

ferent ad-lib blues sharing the same title. "Crazy Fingers" is a good collection of piano solos, but its importance is diminished by its similarity to the Sackville release. I cannot recommend one over the other, but either one is worth acquiring if you are into stride piano. C.A.

RECORDING OF SPECIAL MERIT

HOT LIPS PAGE: After Hours in Harlem. Oran Page (trumpet and vocals); various groups, including Joe Guy (trumpet); Rudy Williams (alto saxophone); Don Lambert and Thelonious Monk (piano); Tiny Grimes (guitar). Konk; Old Yazoo; Sweet Georgia Brown; Topsy; and five others. ONYX 207 \$5.98 (from Onyx Records, 160 West 71st Street, New York, N.Y. 10024).

Performance: Impromptu brilliance Recording: Above expectations

Oran "Hot Lips" Page spent most of his forty-six years contributing to jazz history. By the time he died, in 1954, this extraordinary artist's experience had run the gamut from accompanying the classic blues singers of Ma Rainey's and Bessie Smith's era on the T.O.B.A. circuit, to playing with the Swingera bands of Count Basie and Artie Shaw, to reaching the commercial pop market through duet recordings with Pearl Bailey. Always somewhat in the shadow of Louis Armstrong (with whom he shared Joe Glaser as manager), Page showed the same knack for showmanship and gave his audiences the same combination of musicianship and humor with his trumpet and voice, but he had a style that was decidedly his own.

As these recordings indicate, Page was at his best in informal settings, playing with friends for friends. Like the Tatum recordings previously released by Onyx, these jam sessions were captured by the late Jerry Newman on a portable disc-cutting machine in 1940 and 1941, and they are now being released here for the first time. It doesn't matter that they are several notches below today's technical standards or that an extraneous noise surfaces occasionally; they form a priceless document of jazz creativity such as recording studios have rarely fostered. Impromptu bursts of controlled musical energy and an exquisite sweep of balladry (I'm in the Mood for Love) serve well to illustrate the kind of rapport that existed between the musicians. Besides Page's work, which surpasses most of his commercially recorded output, this album brings us the added joy of hearing stride pianist Don Lambert on the first four tracks. A man of overwhelming technique and improvisatory skill, Lambert made only a few recordings and lived out his days playing extraordinary music among the clatter and chatter of a New Jersey neighborhood bar.

This is one of the most important jazz releases of the year, and I hope sales will encourage producer Don Schlitten to continue his efforts to get the Jerry Newman recordings on the market.

JIMMY RUSHING: Who Was It Sang That Song? Jimmy Rushing (vocals); Buck Clayton (trumpet); Dickie Wells (trombone); Julian Dash (tenor saxophone); Sir Charles Thompson (piano); Gene Ramey (bass); Jo Jones (drums). All of Me; Jelly, Jelly; Stormy Monday Blues; and three others. MASTER JAZZ RECORDINGS MJR 8120 \$5.98 (available by mail from Master Jazz Recordings, Box 579, Lenox Hill Station, New York, N.Y. 10021).

Performance: Informal Recording: Fair

I'll always remember how disappointed thousands of us were when Count Basie brought his band to Europe after World War II: Jimmy Rushing, a main ingredient, was missing. Jimmy, of course, did well on his own, but his voice had become so much a part of the Basie band that I don't think the latter ever fully recovered from the loss of "Mister Five-by-Five."

Fortunately, Jimmy Rushing continued to record, leaving behind a rich legacy of his art when he died last year, and this previously unissued set is particularly welcome since it reunites him with such Basie alumni as Buck Clayton, Dickie Wells, and Jo Jones. It was recorded in October of 1967—at a studio party that has already yielded an album entitled "Gee Baby, Ain't I Good to You" (MJR 8104)—and part of its charm is the delightful informality of the session. Rushing, who sometimes sounded strained in his last years, is in good voice, comfortable with his material and surroundings. The band provides inspired

\$5.98.

accompaniment and a rousing instrumental version of that jam-session war horse *C-Jam Blues*. It's great to hear the infrequently recorded piano of Sir Charles Thompson, and Buck Clayton, whose solo on *I Surrender Dear* is a high point, is always a joy.

If there is a fly in the ointment, it is a technical one. Party notwithstanding, this could have been better recorded—after all, the session took place in a professional studio (1 suspect some echo was added). But this is a case of artistry rising above poor engineering, and the album deserves a place in your collection.

RECORDING OF SPECIAL MERIT

C.A

GEORGE RUSSELL: The Essence of George Russell. George Russell (piano); orchestras, George Russell cond. Electronic Sonata for



GEORGE RUSSELL

A skillful fusion of past and present

Souls Loved by Nature; Now and Then; Concerto for Self-Accompanied Guitar. So-NET SLP 1411/1412 two discs \$7.25 (plus 40¢ postage, available from Jazz Composers Orchestra Association, 6 West 95th Street, New York, N.Y. 10024).

Performance: Vibrant Recording: Excellent

George Russell ranks with Duke Ellington as one of the most important composers of extended jazz works, but he has been shamefully neglected by recording companies. To watch Russell work, as I did thirteen years ago when he recorded for the Riverside label, is an exercise in patience. He was the first jazz artist I ever saw take full advantage of tape techniques, meticulously editing tiny fragments of music to achieve what could not be accomplished during actual recording. I recall how his rigid demands drove Riverside's engineer to the brink of drink, but the result was something that only such demands could have produced, and perturbation inevitably turned to pride as the finished tape was played back. Russell's attention to detail is undoubtedly a factor in his being poorly represented on records, and the frustration may well have been what drove him into European exile a few years ago. Not surprisingly, this album is an import from Scandinavia

The Electronic Sonata for Souls Loved by Nature is in three parts and runs one hour

and thirty-six seconds. Comprising fifteen "events," it is assembled with characteristic care. Parts were recorded in Boston using a Moog synthesizer, parts employ computer units of Radio Sweden's electronic music studios, and the instrumental passages were recorded by some of Stockholm's top studio musicians with a sprinkling of Scandinavian jazz stars. It is an awesome venture that no American record company would have undertaken. The music, a skillful fusion of various and varied elements held together by ethereal bridges of electronic sounds, contains moments of organized abandon, traces of rock and sounds that Stan Kenton probably once hoped to make, but never quite could. It's almost like a condensed history of Afro-American music, subtle strands of past sounds woven into a majestic pattern in a fabric of electronic music.

Now and Then is a shorter piece, recorded at its premiere during the 1966 Stockholm Jazz Festival. Its free-form sounds are corralled in an arrangement that shows great humor and forms a decided contrast to Concerto for Self-Accompanied Guitar, a sombre piece written in 1962 for guitarist Barry Galbraith, but played here in a 1967 recording by Rune Gustafsson

George Russell is now back in the United States. Let's hope American record companies will take advantage of that fact. C.A.

RECORDING OF SPECIAL MERIT

BILL WATROUS: 'Bone Straight Ahead. Bill Watrous (trombone); Danny Stiles (trumpet and flugelhorn); Al Cohn (tenor saxophone); Hank Jones (piano); Milt Hinton (bass); Steve Gadd (drums). Snafu; Lester Leaps In; and three others. FAMOUS DOOR HL 101 \$6.50 (from Harry Lim Productions, 40-08 155th Street, Flushing, N.Y. 11354).

Performance: Stellar Recording: Excellent

Bill Watrous is a thirty-four-year-old trombonist who has made Ariel-like appearances in countless bands ranging from Greenwich Village tourist-trap Dixieland stompers to one of Woody Herman's many herds. For a while he was also buried in a rock group (Ten Wheel Drive), and you may have caught a few bars from him during a Dick Cavett Show station break. But now-with a couple of obscure albums on the MTA label behind him-he happily emerges in full bloom and control on veteran jazz producer Harry Lim's new Famous Door label. Lim deserves our gratitude for the classic sides he produced on his Keynote label in the Forties, and now we are deeper in debt to him because his current efforts reflect that same labor of love.

This is an album of straightforward jazz that should establish Watrous as one of today's leading trombonists. His style is relaxed, and invention flows from his horn with prepossessing assurance. Trumpeter Danny Stiles, who served time with Watrous in Mort Lindsay's band on the old Merv Griffin Show, sounds like his alter ego: a perfect blending of musical minds. Al Cohn lends his tenor to Snafu and Just Friends in a manner that makes us miss him on the remaining selections; Hank Jones maintains his sadly overlooked high standard; Milt Hinton demonstrates why the electric bass will never equal the beauty of the upright he so expertly handles; and Steve Gadd, hitherto unknown to me, now has my deepest respect indeed. C.A.



PRECIOUS LORD: Gospel Songs of Thomas A. Dorsey. Marion Williams, Alex Bradford, the Dixie Hummingbirds, Bessie Griffin, R. H. Harris, Sallie Martin, and Delois Barrett Campbell (vocals); instrumental accompaniment; Thomas A. Dorsey narrator. Take My Hand, Precious Lord; It's a Highway to Heaven; Let Us Go Back to God; Hide Me in Thy Bosom; I'm Going to Live the Life 1 Sing About: Peace in the Valley; and fourteen others. COLUMBIA KG 32151 two discs \$6.98.

Performance: Roof-raising evangelism Recording: Superb

It is gospel by now that without gospel there would have been no soul and possibly no rock-and-roll. The whole thing began, I need hardly remind you, as a form of spiritual and musical release for oppressed blacks in the days of slavery, though the roots of its style could be traced overseas to Africa. What we call gospel music today is strictly evangelical in character, but its popularity has spread far beyond the confines of church walls; gospel is also the commercial property of Aretha Franklin and George Beverly Shea. And it is big business.

Gospel has its own stable of composers, and one of the most popular of all is Thomas A. Dorsey. The son of a Baptist minister in Georgia and the nephew of a church organist, Dorsey is said to have written one out of every four "gospel standards" (this term distinguishes the form from hymns and spirituals) in the repertoire.

The most moving item in the set is Take Mv Hand, Precious Lord, written in 1932 after Dorsey lost his wife in childbirth and their baby son a day later. It is sung by Marion Williams, whose suspenseful phrasing and moaning way with a slurred note are the exasperation of her competitors. Miss Williams also is heard in impassioned versions of several other songs. But all the singers here are superb. Alex Bradford, who won the 1972 Obje Award for his performance in Don't Bother Me, I Can't Cope, not only sings up a commotion but can be heard accompanying some of the others on the piano and celeste, and Bessie Griffin, an old-timer on the gospel circuit, has a contralto it is no exaggeration to describe as enthralling. Sallie Martin, now seventy-six, brings more of a blues sound and less bravura to her interpretations than the other women on the program, but her appeal in Let Us Go Back to God would be hard even for a confirmed atheist to resist. Delois Campbell has what liner-notes author Tony Heitbut accurately describes as a "torchsinger contralto," and she makes the most of it; she's also good at tossing out a well-timed grunt, hum, or whoop to liven up a number. One of the most popular of all gospel quartets. the Dixie Hummingbirds, also harmonizes stunningly in three songs. So, if it's gospel

music you're collecting, I don't think you'll be disappointed in this one.

JEAN REDPATH: Frae My Ain Countrie. Jean Redpath (vocals, guitar). The Gairdner and the Plooman; I'll Lay Ye Doon. Love: The Gairdner Child; Wars o' High Germanie; Silver Tassie; The Rantin' Dog, the Daddie o't: Hishie Ba: My Ain Countrie; Matt Hyland; The London Ba'; Kilhogie; and five others. FOLK-LEGACY FSS-49 \$5.98.

Performance Very good Recording: Good

Interesting. Here is Jean Redpath, a lass from Leven, Fife, Scotland, who's been making the folk festivals in this country lately and singing with what Sandy Paton (who, I guess, is him-

self still as pure as Joan Baez used to be) accurately calls "a flute-like quality." Over there-'way over there, possibly making the rock festivals-is Maddy Prior, who sings, just as clearly, ballads just as old and just as painstakingly dug up, but the one is a folksinger, if you know what I mean, while the other is a folksinger, and we feel uneasy about comparing the two Right here we have a "folk" category for folksingers, while folksingers go under the general pop heading. The greatest musical difference is that Redpath is backed, if at all, by a guitar with gut or nylon strings, strummed or modestly finger-picked, while Prior is backed by Steeleye Span, an electric band of few inhibitions and a wild imagination. I bring all this up because I've heard too much glib talk lately about how the labels are gone and from now on it's all simple "music." The labels aren't gone. They've just become more ambiguous and therefore less helpful.

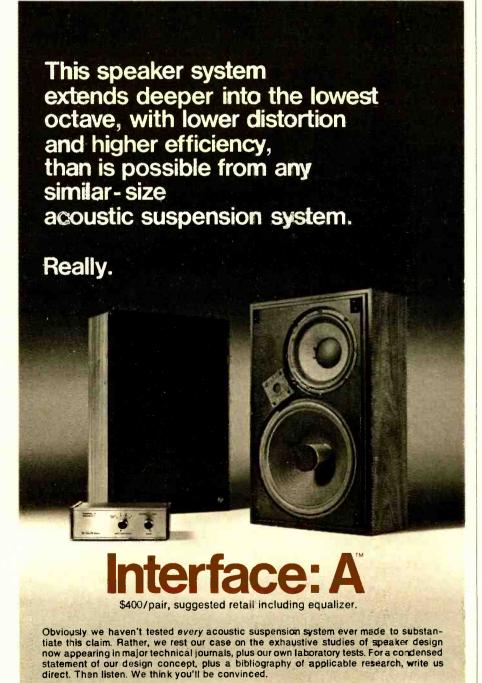
Folklore singers probably is what we should be calling those who, like Redpath, take the purist approach nowadays. This kind of recording requires a different kind of listening. The low-budget, austere ambiance is an important part of it; one does not listen to it expecting a heavy charge but for some quiet insight into the places and times that produced the songs. The singer's role in folklore music - and this, I think, helps explain why Jean Redpath has become such a captivating performer - is to entice us into listening not to her but through her, not to the structure of the song but through that too to the emotional tone of it, which at best fleshes in a bit of the tradition the music represents. Redpath makes it all clearer by writing her own liner notes, by including all the lyrics, and by helping us decipher some of the harder words in the Scottish dialect. Now and then, of course, it becomes obvious on a musical level what kind of singer she is - how great her timing is, particularly on the unaccompanied selections—but the important thing is commitment by her and the listener to tradition. Jean Redpath, without being very obvious about it, is convincing

THE YETTIES: All at Sea. Bob Common (vocals, drums); Bonny Sartin (lead vocals): Pete Shutler (vocals, accordion, concertina, psaltery); Mac McCulloch (vocals, guitar); Dave Green (bass). Hornpipe Medley; Spanish Ladies; Fiddler's Green; The Mermaid; The Watchet Sailor; Three Sea Captains: Aboard the Kangaroo; and nine others. ARGO ZFB 86 \$5.98.

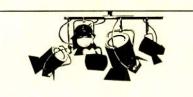
Performance: No barnacles on these boys Recording: Good

Argo furnishes enough music in the sea-chantey division on this one record to keep you sailing over the edge of the world. The four main participants, who can be seen on the cover relaxing in heavy turtlenecks on the pebbled beach of a seaport town, manage to lend just that touch of mackerel-sky greyness to their harmonies to make you feel you're in utterly authentic hands. They launch their voyage with a couple of familiar traditional hornpipes, then set sail with a generous program that includes ballads appropriate for whaling trips, evenings in the foc'sle of a schooner, fishing off the banks of Newfoundland, and hauling up anchor at Bristol. This is by no means the standard repertoire of Blow the Man Down, Early in the Morning, and other salt-encrusted clichés of the genre. Instead, there are such songs as Ranter's Wharf, a spooky ballad about the souls of fishermen getting transformed into seagulls; Stormalong, a chantey sung by sailors but also a favorite of the slaves who used to stow cotton; and The Quaker, which pays homely homage to Lord Nelson. And there's lots more.

I was struck in particular by the colorful Concertina Medley, which this group first introduced as the score for a ballet called Sea Scape presented at a dance festival in Rumania. The trip winds up with Homeward Bound, a "capstan shanty" British tars once used to sing as they hauled up anchor for the last time in a foreign port. Next day their vessel would head for home, but it might be a year before they got there.



ELECTRO-VOICE, INC., Dept. 144F, a Gulton 616 Cecil St., Buchanan, Mich. 49107 COMPANY



THEATER · FILMS

LIVE AND LET DIE (George Martin). Original-soundtrack recording. Orchestra, George Martin cond. United Artists UA-LA 100 G \$6.98, ® A-100, \$8.95, ® UA-EA100-H \$7.98, © UA-CA100-H \$7.98.

Performance: "Calling Dr. No. Urgent!" Recording: Thunderous

If you think that the James Bond series has degenerated into blithering idiocy on the screen, wait until you hear George Martin's score for the latest, Live and Let Die, on record. When it isn't sounding like an explosion in a hardware store orchestrated for a thousand-piece electronic band, it's building "tension" by means of violins that scream as if the cat were still connected, plus assorted chimes, gongs, and drums. Paul and Linda McCartney start things off right at the other end of hysteria in their performance of their latest composition, the title song: "Ya used to say live and let live (chorus - 'Ya know ya did, ya know ya did . . . ')/But if this ever changin' world/In which we live in/Makes you give in and cry/Say Live and Let Die." That should give you some idea of the enormous strides Mc-Cartney has taken since he left the Beatles. After that one track the McCartneys wisely depart, and Mr. Martin is left free to do his Samson-pulling-down-the-temple act.

It's the noisiest, most inane film score of the year, made even more painful by the memory of those sophisticated and wonderfully inventive themes that John Barry devised for earlier Bond capers.

P.R.

O LUCKY MAN! (Alan Price). Original-soundtrack recording. Alan Price (vocals); orchestra. WARNER BROS. BS 2710 \$5.98.

Performance: Good Recording: Excellent

Lindsay Anderson's savage, mocking, and yet very funny film *O Lucky Man!* was one of the hits of the past season on both the commercial and artistic levels. Alan Price's score for it, a series of jeering songs he wrote and performed in the manner of Brecht, served the film and the director's purpose perfectly. Not so perfect is this soundtrack recording. In the film, the songs commented sharply on the action as it was taking place and heightened the irony of the situations. Alone, on record, they are disjointed bits of bile, and tongue lies so heavily in cheek that the face of the whole thing seems swollen out of proportion.

Alan Price is talented, as his earlier work with the Animals shows, but here he has chosen to put himself completely at the service of the single-minded directorial vision of Lindsay Anderson. The recording is only a fragment of a grander artistic scheme.

P.R.

PAT GARRETT & BILLY THE KID (Bob Dylan). Original-soundtrack recording. Bob Dylan (vocals); orchestra. Columbia KC

32460 \$6.98, ® CA 32460 \$6.98, © CT 32460 \$6.98.

Performance: Mild Recording: Good

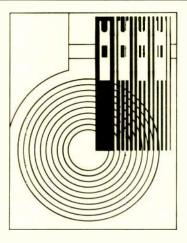
The moans of Dylan fans over the last few years' about his lack of productivity can be heard from here to any consciousness-raising group worthy of its name. This new album, the score for another of Sam Peckinpah's sadistic, blood-bath Westerns, isn't going to reassure them that their hero still cares for them—"them" being middle-class young whites who feel the need to be "involved" and to whom Dylan, one of their number, always spoke most effectively.

I never understood the Dylan mystique, or at least not the impact it seems to have had on

an entire generation. I do admire him for having the good taste to pattern his early songs and performances on those of the incomparable Woody Guthrie, for his undoubted business abilities, and for his pragmatism as a manipulator of popular mood. Otherwise, he always came across, to me, as a Tin Pan Alley mogul in shredded jeans who would have made it commercially in any era.

But, for the faithful, I'll report that this is a wishy-washy effort on all counts. If Dylan's name were not attached to it I doubt that it would have been released. It simply drones from band to band. Also for the faithful: I wouldn't worry too much about Dylan. He'll be back, and bigger than ever, once he stirs himself to taking marketplace pulses and deciding when the mood is ripe.

P.R.



We've got the best anti-skating device ever... none at all

Master records are made by machines that drive the cutting head *in a straight line* across the record. But when you play *your* disc with a conventional pivoted arm system, the revolv-

ing groove pulls the stylus towards the center. This is called, "skating force."

Skating force causes wear on the inner wall of the groove and the stylus, and results in a loss of separation as well as distortion levels simply not acceptable to the serious listener.

Most good pivoted arm systems do have anti-skating devices. But they can only be set for "average" skating force...and an anti-skating device that remains *constant* cannot fully compensate for all of the *varying* forces exerted during the playing of a record. Even the *total* elimination of tracking error does not eliminate the *inherent* problem of the pivoted arm—skating force.

The RABCO pickup moves in a straight line. The record is played precisely as it was originally cut. There is no anti-skating device for one simple reason: The RABCO system eliminates skating force.

We want to tell you more about how we eliminate both skating force and tracking error. Drop us a note and we'll send full information straight away.



The RABCO SL-8EA straight tracking tone arm for your turntable



The RABCO ST-4... A professional turntable with the RABCO tone arm system



DEPT S 55 Ames Court Plainview, New York 11803

CIRCLE NO. 37 ON READER SERVICE CARD

CHOOSING SIDES By IRVING KOLODIN



GERSHWIN ON GERSHWIN

As one who heard the third performance of George Gershwin's Rhapsody in Blue (in Carnegie rather than Aeolian Hall) and, in due course, others of his works performed by him, I can testify to a firsthand—and unreliable—recollection of his piano playing. Why "unreliable" if it was firsthand? Simply for the reason that Gershwin's was not a style of performance unique to its exponent—as. for example, Rachmaninoff's was—but the product of a prevalent manner of playing (and I am speaking here not of his private, informal party piano playing, but of the public, formal expression).

How is one to distinguish between manner and style? If, in the best of all definitions, "style is the man," then, in my definition, manner is a mode common to a number of men." The *style* of Gershwin's compositions is undoubtedly, the man; his *manner* of playing the piano belonged to many men. It was, as John Green says in his notes to one of the Gershwin discs I am about to examine, rooted in ragtime, of which there were many exponents—white as well as black—audible and visible in the period when Gershwin was growing up and first performing publicly (Luckey Roberts was one of his particular affinities).

Ragtime was flashy and dashy, giving rise to such novelty numbers as Zez Confrey's Kitten on the Keys as well as to Scott Joplin's Maple Leaf Rag. It was meant to impress the listener with the performer's virtuosity (highly suited to this one kind of music, but hardly germane to pianistic problems generally). It was strictly off the top of the deck, so to speak, its tricks being taken by the high cards of dynamic regularity, well-defined metric values, and occasional "breaks" rather than the more modest trumps down toward the bottom of the pile-flexibility of accent and that infectious irregularity to which Duke Ellington gave undying explication not only in words but in music: It Don't Mean a Thing If It Ain't Got That Swing.

Hence, when I say "a firsthand and unreliable recollection" of George Gershwin's piano playing, it is because the memory of it is blurred by later ones—the facility with which first Roy Bargy (Paul Whiteman's pianist for innumerable performances without Gershwin) and later Oscar Levant played the *Rhapsody* and the *Concerto*, for example, or the easy invigoration Philip Ohman and Victor

Arden, the great duo-pianists of their time, gave to the tunes of the shows *Lady Be Good* (1924), *Tip-Toes* (1925), and *Oh. Kay!* (1926) from the pit.

Thus, it was with considerable interest that I turned to, and turned on, "Gershwin by Gershwin." a two-disc production prepared for release (by Mark 56 Records, P.O. Box I. Anaheim, California 92805) in conjunction with the seventy-fifth anniversary of the composer's birth on September 26, 1898. I found it to be a constantly entertaining, sometimes curious, and perhaps even spurious hour-plus with much more of the living Gershwin than most of us have re-experienced since his death on a July Sunday over thirty-seven years ago.

The album's contents are derived from two different sources: off-the-air "takes" from radio broadcasts made by Gershwin (some of them preserved in the archives of the Gershwin family, others by that illustrious aesthete Mr. Rudy Vallee), and the "literature" of the piano roll. It is hardly in the nature of a revelation to report that it is the radio broadcasts that I found entertaining and curious, the piano-roll contribution (for a side-filling transcription of the *Rhapsody*) that I would describe as spurious ("of illegitimate birth, bastard," says Webster somewhat unkindly).

My recollection of Gershwin's manner of playing is not so unreliable that I would accept what is reproduced from this piano roll as anything but the awkward, angular, unvital

travesty it is. The continuing vogue for reproducing on records the sound from old piano rolls has so far failed to present me with even *one* real likeness of a pianist whom I heard "live." Their only justification, in my view, is in the curious paradox they offer in those cases where we have both piano rolls and old acoustic or electric recordings of the same performer: they give us only the real sound of the instrument coupled with a poor approximation of a performer whose artistry, at least, is faithfully reproduced on an old disc that gives only a poor approximation of the real sound of the instrument.

In the notes for "Gershwin by Gershwin," we are assured by Gershwin authority Edward Jablonski that "This was a remarkable representation of the Gershwin performance style, because the famed Duo Art roll was capable of not only producing the correct notes and tempos, but gradations of touch as well, an innovation in this form of recording." As one who grew up in the golden days not only of roll-activated pianos, but also of organs with comparable mechanisms, I can only say, "Well, yes..., no..., maybe."

say. "Well, yes...no...maybe."

The "innovation" to which Jablonski refers was also shared by the competing Ampico system. The Duo Art mechanisms were built into one kind of piano, including Steinways, and Ampico (an acronym for American Piano Company) into others, Chickering, Mason and Hamlin, and Knabe among them. Ampico had a more varied catalog of rolls than Duo Art, so the Kolodins had an Ampico. It was, of course, the infuriating limitation of both that the rolls of one would not play on the mechanism of the other, no how, no way (I know: I tried every strategem possible and ruined a lot of Duo Art Bauers trying to make them sound like Ampico Schnabels).

Both were "advanced" mechanisms in the sense that at least *some* of the values of Schnabel crept into his reproduced playing of the Italian Concerto of Bach, just as some character of Bauer flavored the roll of Beethoven's "Moonlight" Sonata. But both were, at best, as stiff, mechanical, and deficient in musical ebb and flow as the version of the *Rhapsody* on the Mark 56 disc. (There is a measure of emotional force in the surgingly beautiful slow section, but that is, I am inclined to think, because the listener knows it is the composer performing.)

For the real, the veritable, the memorable manner of Gershwin transcending misrecollection, one must go to the tracks from the radio broadcasts, however dimmed they are by time or blemished by scratchy surfaces. In



Ferde Grofé, George Gershwin, S. L. Rothafel ("Roxy"), and Paul Whiteman at the Roxy Theatre in New York, where the film The King of Jazz had its premiere in 1930. Gershwin played in the stage show on that occasion. the truncated versions of the Concerto and the typically showy treatments of favorite show tunes there is all the joyous, jubilant, and jaunty vigor of Gershwin playing Gershwin, a unique accent bred in the bone, aged in the wood, and laid down for all time, like a great wine, to give off its aroma and delight the senses anew with body, bouquet, and bite. The descriptives roll off the tongue alliteratively, activated in the mind by Gershwin's music, every note an affirmation of life and the pleasure he derived from it. There are, to be sure, songs of loving and losing, of loving and not being loved, of searching and not finding. But when it comes down to cases, The Man I Love is still about a man who will come along some day, and Porgy, despite his miseries, is on his way at the opera's close to find his Bess in New York.

If today's performers of Gershwin are incapable of learning from his example to keep the touch light, bright, and brisk, perhaps they can gather something of its true flavor from his spoken words (reproduced from "Music by Gershwin," a radio program from the days - 1934 - when Don Wilson, its announcer, was not yet a "character"). When Gershwin plays a variant of I Got Rhythm, it is spirited, informal, and heart-lifting, with a rhythm that is regular but never ponderous. When he speaks of his music, it is also informally; at one point he rebukes Wilson for his characterization of the program as "intimate revues of modern music," prefering "informal, as my part of them will be. I want you to feel as though you had dropped in at my house, or I at yours, to run through a few tunes which had given us pleasure. . . ."

Is there no part of that pleasure to be derived from any performances transcribed from piano rolls? By all means, yes-if the guiding consideration is that such transcriptions be regarded as an engaging form of fantasy rather than documents of Revealed Truth. Just such is the rewarding characteristic of another disc (Klavier KS 122), an assemblage of ten examples of the many, many piano rolls Gershwin made during his early performing years. Included are four songs by Jerome Kern, one by Walter Donaldson (not My Blue Heaven), and five of his own. The satisfaction derives not so much from the likeness to any particular pianist's manner at the keyboard as from the musical content of the lavishly affectionate versions of Kern's Left All Alone Blues and Whose Baby Are You? They are Gershwin's own endorsement of the legend that Kern was every young songwriter's favorite Old Master in the early Twenties. Affection is also a charming characteristic of Gershwin's warm performance of his own Kern-flavored, insinuatingly sinuous I Was So Young, You Were So Beautiful, written when he was twenty. The manner becomes more brusque (and also more recognizably Gershwin) in Sweet and Low Down, with its interpolated breaks in double time.

When do manner and style become so much a part of each other that the difference between them is erased? I would suggest that this occurs, for the purposes of the present discussion, in the performance of the I Got Rhythm Variations reproduced on the Mark 56 disc from a 1934 radio performance. In it, Gershwin's own way of varying the theme pianistically becomes an integral part, thanks to the skills he developed in his work with Joseph Schillinger, of what is possibly the best composition of all those he wrote.

IIIt Infosti CATALOG and FM DIRECTORY

Get all the newest and latest imformation on the new McIntosh Solid State equipment in the McIntosh catalog. In addition you will receive an FM station directory that covers all of North America.



MX 113

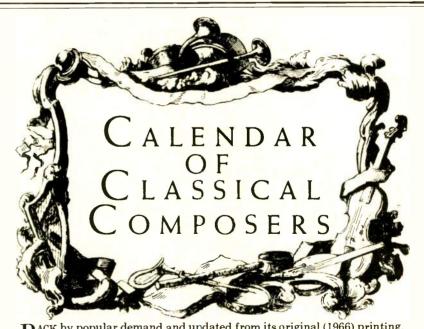
FM/FM STEREO - AM TUNER AND PREAMPLIFIER



If you are in a hurry for your catalog please send the coupon to McIntosh.

For non rush service send the Reader Service Card to the magazine.

CIRCLE NO. 27 OM READER SERVICE CARD



Back by popular demand and updated from its original (1966) printing, Music 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, non-reflecting 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:

Stereo Review, 1 Park Avenue, New York, N.Y. 10016

For your listening enjoyment



THE STAGE OF
THE METROPOLITAN
OPERA HOUSE
IN NEW YORK

THE OPERAS IN JANUARY

SALOME

"Monstrous," "pestilential,"
"mephitic," "abhorrent," "diseased," "polluted," "bestial,"
"loathsome"—these are but a few of the malodorous epithets hurled at Salome. It was withdrawn after one performance at the Metropolitan and did not come back for nearly thirty years. It is still a shocker. How could the biblical story of the daughter of Herodias be otherwise?

CARMEN

By going back to the story on which the opera is based, this production casts new light on Don Jose. He is not a little mother's boy from the country. He is a killer and the smell of blood is already on him—which may be one of the things which pulls Carmen to him—and to her death.

SIMON BOCCANEGRA

The plot is sprawling and complicated but it is set against the splendors of Genoa under the doges, its characters are real flesh and blood, and the music some of Verdi's most beautiful—the lament of the old father, the girl's salute to the sea, which might have been written by a French impressionist, and the great council chamber scene.

TRISTAN UND ISOLDE

Wagner in Tristan "caught up the whole world of love and uttered it," the last word any art so far has had to say on the anguish and ecstasy of human passion. "I am more and more unable to understand how I could produce such a thing," the composer wrote the woman who inspired him. The mystery is still unsolved.

These live broadcasts, heard throughout the United States over the Texaco-Metropolitan Opera Radio Network, and in Canada over the CBC English and French Radio Networks, are proudly presented by Texaco for the pleasure of opera lovers everywhere. This season's broadcasts will be the 34th consecutive year of Texaco's exclusive sponsorship.

DATE	OPERA	COMPOSER	TIME (I	. T.)
1973			•	
Dec. 8	L'ITALIANA	IN ALGERI (Rossi	ni\ '	2:00
Dec. 15		RFLOETE (Mozart)	•	2:00
Dec. 22	RIGOLETTO		_	2:00
Dec. 29		SCAUT (Puccini)		2:00
1074				.:00
1974				
Jan. 5	SALOME (R		2	:00
Jan. 12	CARMEN (I		1	:30
Jan. 19		CCANEGRA (Verdi)		2:00
Jan. 26	TRISTAN U	ND ISOLDE (Wagn	er) 1	:00
Feb. 2	LES CONTE	S D'HOFFMANN (Of		
Feb. 9	OTELLO (V			:00
Feb. 16	LA BOHEMI			:00
Feb. 23		IKAVALIER (R. Stra		:30
Mar. 2		RE DI SIVIGLIA (R		:00
Mar. 9		ICILIANI (Verdi)		:00
Mar. 16		NS (Berlioz)		:00
Mar. 23		RDAEMMERUNG (W	~ .	:30
Mar. 30		UTTERFLY (Puccini		:00
Apr. 6		AMORE (Donizetti)		:30
Apr. 13		NNI (Mozart)		:00
Apr. 20	PARSIFAL (:00
Apr. 27	*TURANDOT			:30
	21st Broad	dcast Live From Bo	ston	

Schedule subject to change
Please check your local newspaper for radio station

Please send quiz questions to Texaco Opera Quiz, 135 East 42nd Street, New York, N.Y. 10017.





Reviewed by RICHARD FREED • DAVID HALL • GEORGE JELLINEK • IGOR KIPNIS
PAUL KRESH • ERIC SALZMAN

BACH, J.S.: Kleines Harmonisches Labyrinth (see FISCHER)

BAKER: Computer Cantata (see Collections—Computer Music)

BEETHOVEN: Präludium Durch Alle Tonarten (see FISCHER)

BEETHOVEN: Sonata in C-sharp Minor, Op. 27, No. 2 ("Moonlight"). SCHUBERT: Impromptus: A-flat Major, Op. 90, No. 4; F Minor, Op. 142, No. 1; A-flat Major, Op. 142, No. 2; E-flat Major, Op. 90, No. 2. Vladimir Horowitz (piano). Columbia M 32342 \$5.98, ® MA 32342 \$6.98. © MT 32342 \$6.98.

Performance: Artfully simple Recording: Nothing special

These are the simplest imaginable performances, utterly devoid of rhetoric or hype. The first movement of the "Moonlight" is played as if in a daze—perhaps the only way to play it! The second movement is a mere nursery rhyme, the finale storms no heights at all. These remarks are intended to be descriptive and not necessarily critical. Horowitz's gift of simplicity is so artfully managed that one emerges with the (probably mistaken) conviction that it is hardly possible these days to play this vastly overworked music any other way.

His approach to the Schubert is basically similar, though with a bit more passion in the Op. 90 pieces. The others seem to me just a

Explanation of symbols:

R = reel-to-reel stereo tape

(8) = eight-track stereo cartridge

© = stereo cassette

__ = quadraphonic disc

R = reel-to-reel quadraphonic tape

8 = eight-track quadraphonic tape

c = quadraphonic cassette

Monophonic recordings are indicated by the symbol M

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

bit too understated. Simplicity is fine when it keeps you from seeing what isn't there, but when you start missing some of what there is to find it becomes too much of a good thing. The piano sound is all right but will elicit no



Risë Stevens
A vital, appealing Carmen

raves from me. Disc condition should be checked; my review copy was a crackling, bleepy mess. E.S.

BIZET: Carmen (Excerpts). Risë Stevens (mezzo-soprano): Nadine Connor (soprano): Raoul Jobin (tenor); Robert Weede (baritone). Metropolitan Opera Chorus and Orchestra. George Sebastian cond. Odyssey Y 32102 \$2.98

Performance: Fair Recording: Fair

These excerpts were recorded during the season (1945-1946) when Risë Stevens first sang Carmen at the Metropolitan. She had sung the role previously elsewhere, and the interpretation she offers here is vital, knowing, appealingly vocalized (except for a mannered and superficial Gypsy Song), and worthy of documentation. Jobin is a Don José of style and

verve but limited vocal resources. The Micaëla of Nadine Conner and the Escamillo of Robert Weede (each singing one aria) are adequate. Alas, the chorus and orchestra are undistinguished, although Sebastian manages to keep things together. The price is low, but the sound is dated.

GJ.

RECORDING OF SPECIAL MERIT

BRITTEN: A Ceremony of Carols; Hymn to St. Cecilia; Missa Brevis. Osian Ellis (harp): Ian Hare (organ): King's College Choir. Cambridge. David Willocks cond. SERAPHIM S-60217 \$2.98.

Performance: *Echt* Britten Recording: Superb

No one has written more expertly than Benjamin Britten for children's voices, and his settings for A Ceremony of Carols are surely among the finest he has composed—raising the art of the Christmas carol to almost Gothic heights. I had become familiar with this work from Britten's own recording on London with the Choristers of Canterbury Cathedral, but that version has now yielded in my affections to this latest one, which is better recorded and offers the charming effects of a real processional and recessional at the beginning and end. David Willocks uses a real boys' choir, too, and the harp passages are played impeccably by Osian Ellis.

Like A Ceremony of Carols, the Hymn to St Cecilia came from Britten's pen in 1942. It is based on a poem by the late W. H. Auden. and unfortunately copyright difficulties made it impossible to provide a text with the album (texts of the other two works are furnished). The recording concludes with an immaculate version of the little Mass Britten wrote for boys' voices and organ, culminating in sublime unison singing of the Agnus Dei. Indeed, the entire Mass is seamless, and recording technology seldom has captured the sound of an organ better than it does Ian Hare's accompaniment on this bright occasion. P.K.

BRUCH: Violin Concerto No. 1, in G Minor, Op. 26 (see MENDELSSOHN)

(Continued on page 107)



Bach's CHRISTMAS ORATORIO

One excellent and one exquisite new recording of an exciting, expressive work

Reviewed by Igor Kipnis

OHANN SEBASTIAN BACH'S group of six cantatas known as the Christmas Oratorio (and so called by him: Oratorium Tempore Nativitatis Christi) was composed around 1734-1735 in Leipzig. Recomposed might be a better description, for of the sixty-four musical numbers - choruses, chorales, arias, duets, trios, quartets, recitatives, and ariosos - a substantial quantity were adapted from previously written cantatas, both sacred and secular. The first chorus, "Rejoice, exult! Up, glorify the days," for example, began as "Sound, ye drums! Ring out, trumpets!", the opening chorus of a cantata written in 1733 in honor of the birthday of the Electoress and Queen of Saxony and Poland. That cantata (BWV 214) also supplied Bach with three additional items for his Christmas Oratorio; other sections came from BWV 213, 215, 247, and two secular cantatas whose music is lost.

Each of the six cantatas of the oratorio corresponds to the six Christmas feast days: the first three days of Christmas ("And it came to pass at this time, that a decree went out..." through the birth and the return of the shepherds); New Year's Day (Feast of the Circumcision); the following Sunday; and, finally, Epiphany. Thus, although each of the cantatas can be performed separately, there are strong connective ties among them. I cannot understand why more performing organizations don't attempt this Bach work, rather than, say, Handel's Messiah, at Christmas time, for in my opinion its musical worth is just as great. One answer, perhaps, is that the Bach score is rather more difficult to execute for soloists, choir, and instrumentalists than the Handel. Or it may just be that the music is less familiar.

Two new recordings, added to three slightly older ones in the catalog, might help it become more popular. The first of these, on Philips, is from nearly all standpoints an

excellent performance. Among the vocalists, Elly Ameling (who had previously recorded the soprano part for London's edition with Karl Münchinger) is the standout, but Brigitte Fassbaender, Horst Laubenhal, and Hermann Prey are never less than highly satisfactory. The chorus is a mixed one (similar to Karl Richter's on Archive, unlike the male choir in the Münchinger version), and they sound fairly full but able to cope with the clarity that Bach's polyphonic choral writing demands. The Bavarian Radio Symphony, a bit full in the strings, has some excellent instrumental soloists, notably the first trumpeter.

Finally, there is Eugen Jochum's approach as conductor of this score. His direction of the choruses is rhythmically vital, movements are generally lively in tempo (especially in the more rapid sections), and his reading represents a reasonably good modification of the Baroque style in the manner of Münchinger and Richter. By that I mean that there remain some vestigial Romanticisms. These manifest themselves principally in some of the chorales, which are treated in the hushed, slow, and reverential tradition of a very post-Baroque style, an essentially unvaryingly paced and dragged-out attitude towards recitatives, and an incorrect execution of most trills (though Jochum's treatment of appoggiaturas is very good indeed).

If I seem to be downgrading the accomplishments of an older school of Bach performance, it is partly because of the unique qualities of the second recording of the Christmas Oratorio at hand. Those familiar with Nikolaus Harnoncourt's earlier Bach choral recordings—the St. John and St. Mark Passions, the B Minor Mass, and over two dozen cantatas—will be delighted to know that the Viennese conductor/cellist/gambist/musicologist has even exceeded his previous efforts with this per-

formance on Telefunken. His approach is based almost exclusively on historical practice of Bach's time. For those unfamiliar with his work in the field, this includes corrected scores, original instruments (or reproductions), the kind of small forces that Bach would have had at his disposal both chorally and instrumentally, all-male choir and soloists (boy soprano, though a countertenor does take the alto solos), and, not least, ornamentation, tempos, phrasing, and articulation that are properly authentic. In a few cases in the past, I have felt that, admirable as Harnoncourt's approach was, he has been so busy pruning away the shrubbery of the nineteenth and early twentieth centuries that what remained was at times curiously bare. In the Christmas Oratorio, though, there is not one moment when one is not aware of the affect, the all-important emotional content of both the text and Bach's expression of it in musical terms. Even the fast siciliano that opens the second cantata conveys perfectly the underlying pastoral mood. The arias are superbly sung; listen to Kurt Equiluz's brilliantly executed "Frohe Hirten, eilet" (No. 15) or "Ich will nur dir zu Ehren leben" (No. 41) if you didn't think stylistically correct Bach could be exciting. Or expressive: try countertenor Paul Esswood's "Schlafe, mein Liebster" (No. 19). The vocal soloists are all first-class, though I do wish Harnoncourt could get the boy sopranos to learn how to execute a trill. The clarity of the choral singing, the affecting way in which the choir points up certain key words, the story-like pacing of the recitatives, the transparency of the instrumental group, the overall shading of dynamics (not in the least on one level) - these are among the countless details that make this performance such an exquisite one. Two more points: I have never heard the Christmas Oratorio interpreted with greater emphasis on its pastoral (shepherds, crèche, peace, joy, wonderment) elements. Secondly, among the instruments that aid considerably in establishing that mood, there is the first use of a reconstructed oboe da caccia, a bent, crescent-shaped tenor oboe with a brass bell, whose plangent yet gently prominent tones (modern performances ordinarily use an English horn) I find fascinating.

Both Philips and Telefunken supply texts, translations, and notes (Harnoncourt adds articles on the oboe da caccia and Bach articulation and instrumentation as well). Philips' sound is very good, though a little constricted at side ends; Telefunken's is superb.

BACH, J. S.: Christmas Oratorio (BWV 248). Elly Ameling (soprano); Brigitte Fassbaender (alto); Horst Laubenthal (tenor); Hermann Prey (baritone); Bavarian Radio Symphony Orchestra and Chorus, Eugen Jochum cond. Philips 6703 037 three discs \$20.94.

BACH, J. S.: Christmas Oratorio (BWV 248). Soloist of the Wiener Sängerknaben (soprano); Paul Esswood (countertenor); Kurt Equiluz (tenor); Siegmund Nimsgern (bass); Wiener Sängerknaben; Chorus Viennensis: Concentus Musicus of Vienna, Nikolaus Harnoncourt cond. Telefunken SKH 25-T/1-3 three discs \$17.94.

BUXTEHUDE: Das Jüngste Gericht. Annemarie Grünewald (soprano): Raimund Gilvan (tenor): Traugott Schmohl (bass): Margarethe Lerche (soprano); Ingrid Rattunde-Würtz (soprano): Sabine Kirchner (alto); Mannheim Bach Choir: Heidelberg Chamber Orchestra, Heinz Markus Göttsche cond. MUSICAL HERITAGE SOCIETY MHS 1579/80 two discs 5.98 (plus 65¢ handling charge, from Musical Heritage Society, Inc., 1991 Broadway, New York, N.Y. 10023).

Performance: Commendable Recording: Excellent

Dietrich Buxtehude divided The Last Judgment into five sections, for performance on the five Sundays that precede Christmas. When one approaches the complete oratorio, it seems, at first glance, that here might be a large-scale choral work that could perhaps be set alongside the mightier choral pieces of Schütz or even J.S. Bach. There are, to be sure, a number of choruses and chorales. But, in fact, the greater part of the music is devoted to recitative and arioso-like sections sung by such allegorical figures as Avarice, Lust. Pride, the Righteous Soul, and the Wicked Soul (who has by far the most colorful part): and, of course, there is also the bass voice (not too sonorous) of God. Much of the accompaniment is straight continuo, though there are obbligato instruments from time to time. Each episode commences with an orchestral introduction (the last is the same as the first), the only exception being the opening to the third part, which uses Buxtehude's organ chorale prelude, "Ach Herr, mich armen Sünder." The present recording also interpolates the composer's organ Chaconne in E Minor at the close of Part Four (unfortunately, none of this is explained in the notes).

I found the instrumental sections of this recording on a much higher level than a good deal of the solo vocal items, but my reaction may be partly ascribed to the excessive piety of the text. Reading the text. I expected, if not to laugh, to be struck by the composer's skill in creating vocal and instrumental effects to complement such naïveté. But it's all done straight, even the hell scenes.

The performance is graced by an excellent soprano, Annemarie Grünewald, and the other soloists are never less than commendable. The choir and orchestra do their work with proper seriousness, although I could imagine the difference a Karl Richter might have made in evoking drama. The recording itself, though over seven years old, is good, and the Musical Heritage Society provides a text and translation. But I have to conclude that this is one for Buxtehude enthusiasts only.

CALDARA: Praeambulum (see FISCHER)

CASTELNUOVO-TEDESCO: Concertino for Harp, String Quartet, and Three Clarinets. Ann Mason Stockton (harp): Victor Arno, Kurt Dieterle (violins); Alvin Dinkin (viola); Harold Schnier (cello); John Neufeld, John Bambridge, Jr. (clarinets); William Ulyate (bass clarinet). ROUSSEL: Impromptu. WOOLLEN: Lento. SCHIFRIN: Continuum. Ann Mason Stockton (harp). CRYSTAL S-107 \$5.98.

Performance: Very Good Recording: Good

CASTELNUOVO-TEDESCO: Concertino for Harp and Chamber Orchestra. DEBUSSY:

Danse Sacrée et Danse Profane. RAMEAU: Airs de Ballet (from Platée). Susann Mc-Donald (harp); Arizona Chamber Orchestra, Robert Hull cond. KLAVIER KS 515 \$5.98.

Performance: Very good Recording: Good

That so striking a work as the Concertino, one of Castelnuovo-Tedesco's most beguiling compositions, should elude phonographic attention for nearly four decades and then turn up in two recordings at the same time merely illustrates anew a "discovery" pattern of long standing. That the work is eminently worth discovering can hardly be questioned: it is voluptuously handsome, its unusual sequence commencing with a passacaglia and concluding with a malagueña finale the composer acknowledged to be à la Ravel. The performance on Crystal is of the original version,



István Kertész (1929 – 1973) First-rate Dvořák symphonic poems

composed in 1937. In 1938 the composer made a revision, substituting flute, oboe, clarinet, and bassoon for the three clarinets, and it is apparently the revised version, with an enlarged string body, that is presented on Klavier. Either way, it would take a cold heart to resist this music, and both recordings are so effective that a choice might have to be made on the basis of couplings.

Harpists and harp fanciers will probably prefer the Crystal disc because Ann Mason Stockton is recorded prominently in the Concertino and plays three seldom-heard solo pieces instead of yet another version of the Debussy (which she did for Capitol with Felix Slatkin more than twenty years ago, together with their still unsurpassed account of the Ravel Introduction and Allegro), and also because there is no harp in the Rameau material on Klavier. The Roussel Impromptu is the only one of Stockton's solos likely to be at all familiar. The Lento by Washington composer Russell Woollen is the one solo movement of a 1970 chamber work for harp, oboe, and percussion, and Lalo Schifrin's Continuum was written for Stockton, who plays everything on the record as if it had been. There are, too, some felicities in the playing of the solo strings which are not to be heard from the larger group.

For her part, Susann McDonald, obviously a first-rate musician, is no less persuasive in the Concertino, and collectors who are less harp-oriented may well be drawn to the otherwise unavailable Rameau dances on Klavier—an incongruous component in this package (which Klavier has labeled "Mediterranean Reflections"), perhaps, but a most attractive one nonetheless. Robert Hull, who may be remembered for his Concert Hall recording of Vaughan Williams' Flos campi (with violist Francis Tursi) at about the same time Stockton did her Ravel, has put together a fine little orchestra in Tucson, and the quality of the recorded sound is a further enhancement. With such strong companion pieces, the probable duplication of the beautifully played Debussy is not hard to take.

R.F.

RECORDING OF SPECIAL MERIT

DVOŘÁK: Symphonic Poems: The Water Goblin, Op. 107; The Noonday Witch, Op. 108. Overtures: My Home, Op. 62; The Hussite, Op. 67. London Symphony Orchestra, István Kertész cond. London CS 6746 \$5.98.

Performance: Splendid Recording: Very fine

When I reviewed István Kertész's fine 1971 recording for London of *The Golden Spinning Wheel*. I expressed the hope that this might be the harbinger of an integral recording of all five of Dvořák's symphonic poems. But with Kertész's tragically premature death this past year, it is doubtful that this project was completed.

Dvořák was no Richard Strauss when it came to writing sharply depictive music. nor, in my opinion, did he have the dramatic flair of a Smetana, whose Wallenstein's Camp and My Fatherland cycle are among the masterpieces of pre-Strauss tone poems. What Dvořák did have was a seemingly inexhaustible melodic gift, a wonderful genius in the art of producing counter-melody to match the initial inspiration, and a feeling for orchestral coloration that enabled him to combine Wagnerian gorgeousness with the linear clarity so characteristic of the Czech style. One other element Dvořák brought to these symphonic poems based on Czech folk legend was a tentative experimentation with speech-rhythm in this instance, with certain key lines of the K. J. Erben poems that inspired four of the five symphonic poems. This experimentation was noted with care by a young composer who was to become the master of the next generation, the Moravian-Czech Leoš Janáček.

Though the legends underlying The Water Goblin and The Noonday Witch are gruesome in the best Brothers Grimm manner, Dvořák's horror music is no match for that of a Strauss or a Mahler. The story line is reasonably easy to follow as one listens to the music, but it is the music-melody, dance rhythm, coloration, and all-that holds one's attention from beginning to end. From this standpoint, I always have found The Golden Spinning Wheel, with its canny thematic transformations and super-richness of melody, the finest of all the Dvořák symphonic poems. Nevertheless, it is good to have these Kertész performances, for they are first-rate and superbly recorded throughout.

The overture performances have been issued previously as fillers in the complete Dvořák symphony cycle recorded by Kertész for London during the 1960's. My Home, composed as an essentially festive piece, is curiously Beethoven-like in its idiom. In The Hussite, the Czech nationalist in Dvořák is at its most militantly effective, and I wish that

the Kertész reading had been even more fiery and volatile than here. In any event, this disc as a whole is a must for fanciers of Czech music in general and of Dvořák in particular.

D.H.

RECORDING OF SPECIAL MERIT

DVOŘÁK: Quintet in E-flat Major, Op. 97; Sextet in A Major, Op. 48. Members of the Vienna Octet. LONDON STS 15242 \$2.98.

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

As the opus numbers indicate (accurately, in these instances), Dvořák's String Sextet was composed at about the same time as the first set of Slavonic Dances, while the Quintet (with two violas) came during his American sojourn, along with the New World Symphony and the "American" Quartet. Both the Sextet and the Quintet, so inexplicably neglected in the recital hall, are among Dvořák's most personal and appealing chamber works, and they make an eminently sensible combination as recorded here. This is not a reissue, as most of London's STS numbers are, but a new recording, first issued in England less than two years ago. Why London/Decca chose to offer it on the low-price label, I have no idea; everything about it conforms with that company's most exacting standards. But that it is a generous gesture I have no doubt. for these are warm-hearted, beautifully recorded performances. Each side plays about thirty-three minutes, by the way, since firstmovement repeats are observed.

Confirmed Dvořákians may prefer to have the Sextet as played by members of the Berlin Philharmonic Octet on Philips 839.754 LY, since the companion piece on that disc is the only recording of the *really* unknown Quintet in A Minor, Op. 1 (also for two violas), and Op. 97 may be enjoyed in the performance by the Budapest Quartet and Walter Trampler on Columbia MS-6952 (with the Beethoven Quintet, Op. 29). Unless Dvořák's Op. 1 is a must, however, the new London release is to be preferred; it is surely one of the best buys in the chamber music discography.

**R.F.*

RECORDING OF SPECIAL MERIT

FISCHER, J. K. F.: Suites for Harpsichord. No. 1, in C Major ("Clio"); No. 2, in G Major ("Calliope"); No. 6, in F Major ("Euterpe"); No. 9, in D Minor ("Urania"). William Neil Roberts (harpsichord). KLAVIER KS-506 \$5.98.

Performance: **Highly commendable** Recording: **Excellent**

RECORDING OF SPECIAL MERIT

FISCHER, J. K. F.: Ariadne Musica Neo-Organoedum. BACH, J.S.: Kleines Harmonisches Labyrinth (BWV 591). BEETHOVEN: Präludium durch alle Tonarten, Op. 39, No. 2. CALDARA: Praeambulum. SORGE: Toccata per Ogni Modi. Franz Haselböck (organ of the Basilika Sonntagberg, Austria). Musical Heritage Society MHS 1634 \$2.99 (plus 75¢ handling change from the Musical Heritage Society Inc., 1991 Broadway, New York, N.Y. 10023).

Performance: Impressive Recording: Excellent

Among the many composers whose works Johann Sebastian Bach studied, including Buxtehude, Pachelbel, Froberger, Frescobaldi, and a host of other Italians and Frenchmen, one of the least known—though, to me, most fascinating—was Johann Kaspar Ferdinand Fischer. Born around 1665, Fischer worked mainly as Kapellmeister to the Margrave of Baden-Baden. Little is known about him; he may have studied with Lully or one of his pupils (his Op. 1 orchestral suites, Le Journal de Printemps, are completely French in style), and he died in Rastaat in 1746. His output consists mainly of sacred music and keyboard works for harpsichord and organ, of which there are two excellent and welcome examples now available on discs.

Of the nine harpsichord suites published without date as *Musicalischer Parnassus*, each named after one of the mythological muses, California harpsichordist William Neil Roberts plays four. Any programmatic



WANDA WILKOMIRSKA
The spontaneity of live performance

connection between these suites and Clio, Euterpe, Calliope, and Urania might be considered a bit tenuous, but the quality of the writing, if on occasion variable, is mostly on a very high level. Much of it resembles J. S. Bach (that should really be the other way around); there is a certain German stolidity plus a decidedly French emphasis, but it is French as seen through German eyes, much as Bach's French writing was. Perhaps the single most impressive movement to be heard here is the Passacaglia from Suite No. 9 in D Minor. Wanda Landowska recorded this piece in the Fifties, and she performed it magnificently. So, too, somewhat later, did Rafael Puyana. It is great credit to Mr. Roberts that his recording of this very Bach-like movement has much of the same impact and strength as those of his predecessors. His style throughout is warm, properly unmetronomic, knowledgeable as to details of performance practice. and technically assured. Some of the repeats to the movements might have benefited from added embellishments (Roberts' are distinctly conservative), but on the whole his playing is very enjoyable. The sonics are excellent.

The twenty brief preludes and fugues that make up Fischer's *Ariadne Musica* must likewise have been known to Bach. Fischer's *Ariadne Musica* was published in 1702, thereby predating by twenty years Bach's first book of the *Well-Tempered Clavier*. Not only

are the styles similar, but the intent is the same: to reveal the advantages of equal temperament (though Fischer restricted himself to fewer keys than Bach). The preludes and fugues are sometimes very terse and concentrated, but the music is very, very impressive. In at least one case, Fugue No. 8, in E Major, Fischer's subject is identical to one that Bach used in the WTC, Book II. The remaining quarter of the Musical Heritage Society disc is devoted to pieces in which Antonio Caldara, Bach, Georg Andreas Sorge, and Beethoven modulated from a starting key through a variety of distant tonalities back to the home key again. None of these, including the Little Harmonic Labyrinth that is attributed to Bach but is considered of doubtful authenticity, are more than interesting improvisatory curiosities, but the prelude by the Venetian composer Caldara stands out by virtue of some of its arresting harmonies. The disc as a whole is a fascinating one, and it is exceedingly well played and recorded on a late-eighteenth-century Austrian organ. I.K.

RECORDING OF SPECIAL MERIT

FRANCK: Sonata in A Major for Violin and Piano. SZYMANOWSKI: Mythes (Trois Poèmes pour Violon et Piano), Op. 30. Wanda Wilkomirska (violin); Antonio Barbosa (piano). CONNOISSEUR SOCIETY

CSQ 2050 \$6.98.

Performance: Superb Recording: Good four-channel (SQ)

There were three first-rate performances of the Franck Sonata on records (in addition to as many others of the cello version) prior to the release of this new one: impeccable studio recordings by Itzhak Perlman and Vladimir Ashkenazy on London and by Isaac Stern and Alexander Zakin on Columbia, and the sweepingly dramatic version recorded in actual recital by David Oistrakh and Sviatoslav Richter (Melodiya/Angel). None of these is in any way diminished as a beautiful and satisfying listening experience, but I think this new version by Wanda Wilkomirska and Antonio Barbosa has to go straight to the top of this exalted list. Technically, they need ask no concessions from any of their rivals, and the dimensions of the conviction they bring to the work give their performance the sweep and spontaneity of a "live" take. (I'd be interested in knowing if more than a single take was required for the second movement.) At the same time, there is a very subtle sense of control that prevents the enthusiasm from running away with itself. One doesn't really want to be overwhelmed by the Franck Sonatajust to be thrilled is enough. The intensity of the Wilkomirska/Barbosa performance is exquisitely proportioned, without a trace of self-consciousness, and the sound itself is impressive in its realism (a little warmer in two-channel playback, more sharply defined in four-channel).

What would make this disc irresistible even if the Franck side were less persuasive is the very long-overdue first recording (in the West, at any rate) of Karol Szymanowski's Mythes. Heretofore, only La Fontaine d'Arethuse, the first of the Trois Poèmes, has appeared on records, usually in the context of a package of bonbons or encore pieces. It is more substantial than that, and its two companion pieces—Narcisse and Dryades et Pan—complete a fascinating picture. Most of us have only the vaguest notion of what sort of composer

Szymanowski was, and the Mythes provide both some answers and a stimulus to hear

Szymanowski is frequently compared with Scriabin, which may not be too much to the point; most of his music is characterized not by ordinary garden-variety mysticism, but by "ecstaticism." He was born in 1882, ten years later than Scriabin and a few months later than Leopold Stokowski and Igor Stravinsky; he died (aged fifty-four) in 1937, the same year as Ravel. Harris Goldsmith, in his very perceptive annotation for this recording, points out some parallels between the Mythes and Ravel's Gaspard de la Nuit, citing also "a terse power . . . a tortured modernism which keeps interrupting the dreamy Impressionism' . . . a touch of the Orient . . . exotic textures which keep the music constantly undulating before our ears.

I am rather at a loss as to what to say about the performance itself, simply because the unity between "interpreters" and material here is so complete that it seems impossible to separate them and absurd to try. With the aid of Paul Kochanski (the great Polish violinist who was both friend and consultant to Szymanowski, as Joachim had been to Brahms), Szymanowski filled the Mythes with almost every challenge to the violinist then known. and he wrote the piano part for a virtuoso equipped with his own formidable skills; this much we are told, and it is wholly credible. but there is nothing in this performance to make one aware of such banalities as challenges or display - only the most deeply felt and utterly convincing outpouring of the "ecstaticism" that was Szymanowski's driving force. This is a uniquely beautiful record. R.F.

HANDEL: Chamber Works (see Collections -Arnold Goldsbrough)

RECORDING 0 F SPECIAL MERIT

HANDEL: Semele, Justino Diaz (bass), Cadmus and Somnus; Mark Deller (countertenor). Athamas; Sheila Armstrong (soprano), Semele: Helen Watts (contralto). Juno and Ino: Felicity Palmer (soprano), Iris: Robert Tear (tenor), Jupiter; Amor Artis Chorale; Harold Lester (harpsichord and organ); English Chamber Orchestra, Johannes Somary cond. VANGUARD VSD 71180/1/2 three discs

Performance: Excellent Recording: Excellent

When, after decades of glory, Italian opera lost its public support in London around 1740, George Frideric Handel, German composer of "Italian" opera, turned toward English oratorio rather than accept unemployment. His Messiah (1742) shortly raised Handel's fame to an unprecedented peak and established him as a "church composer" of extraordinary powers. But Messiah was unique in Handel's output, and less representative of his oratorio style than Samson (1743), a work filled with vivid theatrical elements. Semele (also 1743), set to a text by William Congreve, was cut according to the Samson pattern. As John Mainwaring, Handel's first biographer, put it 'way back in 1760, "Semele is an English opera, but called an oratorio, and performed as such." Later performances adhered to the oratorio tradition: the subject of Jupiter's escapades and Semele's open sensuality was too daring for Victorian tastes, and decidedly unsuitable for staging in

any form of theatrical semblance. We see these matters somewhat differently today, of course, and few listeners (particularly after hearing this outstanding performance) will argue with Paul Henry Lang's assessment of Semele as "the first full-length English opera."

The operatic quality is everywhere evident in the work. The mythological setting notwithstanding, the personalities are endowed with distinctly human qualities: Semele is a sensuous and ambitious woman, Jupiter comes across as an enthusiastic philanderer, and Juno as the all-too-human "woman scorned." Handel's music faithfully mirrors their characters and conflicts; the arias and ensembles (including a distinctly operatic quartet in Act 1, Scene 1) seldom fail to advance the action, and the choruses are integrally woven into the drama. Whether this type of opera is suitable for modern staging is another story. I have my reservations, but it might work in inspired hands. Surely it has one of Handel's richest, wittiest, and most colorful scores going for it.

Johannes Somary, with his Amor Artis Chorale and the very fine English Chamber Orchestra, realizes the music's beauties with dramatic vigor and a keen sense of style. He revels in those witty touches of the orchestration that underline Congreve's occasionally felicitous text, he responds to the vitality of the vigorous dance elements, and he projects the colorful music with well-chosen tempos and clear textures. The singers are handled considerately, and the da capo ornamentations are properly employed without excessive embroidery.

The title role calls for a soprano who can suggest unbridled voluptuousness while singing like an angel. If Sheila Armstrong is too refined an artist to fully satisfy the first requirement, she fulfills the second brilliantly. Her music is a succession of dazzling arias, among them the familiar "Oh sleep, why dost thou leave me?," the sensuous, dance-like "Endless pleasure," and the brilliantly giddy coloratura showpiece, "Myself I shall adore." All of these are sung with lovely tone, exceptional control, and great agility.

Helen Watts, who is a very fine Handel stylist, realizes the character of Juno with great gusto, reveling in her jealousy and scheming. Justino Diaz is both sonorous and entertaining as Somnus, the God of Sleep, in a brief but inventively drawn scene, and the interpreters of the minor roles make valid contributions.

I am less impressed with Robert Tear, a singer very highly thought of in England, who has lately been heard in many major assignments. He is musicianly and conversant with the Handel style, but lacks the sensuous appeal needed for Jupiter's music. Such great melodic inspirations as the ravishing "Where'er you walk" produce only a feeling of frustration when the interpretive skill is not great enough to meet them.

There are several cuts in this performance. but Semele is a very long opera, and we can be grateful to Vanguard for six full sides of Handelian joys, lustily performed and richly (though perhaps a little too reverberantly) recorded.

RECORDING 0 F SPECIAL MERIT

HAYDN (attrib.): Concerto in E-flat Major for Two Horns and Orchestra. TELEMANN: Concerto in E-flat Major for Two Horns, Strings, and Continuo. VIVALDI: Concerto in

Great Speakers (WHOLESALE) Don't miss out, send for a free catalog. RSL is the nation's only brand of highly acclaimed and reviewed speakers that are available factory direct. Choose from the finest and most complete line available and save a fortune by eliminating the dealer and middleman.

CIRCLE NO. 44 ON READER SERVICE CARD

State

6319 Van Nuys Blvd. Van Nuys, CA 91401

Name

City

Address

ROGERSOUND LABS



Save on stereo!

Buy direct from us, and you save money with our high-volume prices on more than 100 name brands. Order from the branch nearest you.

Midwest Hift Wholesale & MAIL ORDER DIVISION 2455b Wisconsin Ave, Downers Grove, Ill 60515 3309 E. J W Carpenter Frwy, Irving, Tex 75062

NAME

ADDRESS

CITY/STATE

F Major for Two Horns, Strings, and Continuo (P. 320). Zdeněk Tylšar and Bedřich Tylšar (horns): Prague Chamber Orchestra, Zdeněk Košler cond. SUPRAPHON 1 10 1200 \$5.98.

Performance: Mostly very enjoyable Recording: Excellent

These three concertos provide an excellent showcase for the abilities of two young horn players, the Tylšar brothers. The oldest, Bedřich (b. 1939), is first horn with the Prague Symphony and is also a member of the Prague Conservatory faculty: Zdeněk (b. 1945) is one of the members of the horn section in the Czech Philharmonic. Both play as one—they have an excellent sense of ensemble and obviously splendid technique, though tonally they cultivate the rather wide and potentially annoying vibrato that is characteristic of many brass players in French or Iron-Curtain-country orchestras.

The performances here are for the most part very attractive; I particularly enjoyed the concerto attributed to Haydn, the only piece here that is not really familiar (there is also a Musical Heritage Society recording of it on MHS 533). The accompaniments are nicely gauged, and the recorded sound is well balanced and clean.

1.K.

HILLER: Computer Cantata (see Collections—Computer Music)

HOLST: The Planets—Suite, Op. 32 (see Best of the Month, page 83)

MELBY: 91 Plus 5 (see Collections—Computer Music)

MENDELSSOHN: Violin Concerto in E Minor, Op. 64. BRUCH: Violin Concerto No. 1, in G Minor, Op. 26. Itzhak Perlman (violin); London Symphony Orchestra, André Previn cond. ANGEL S-36963 \$5.98, ® 8XS-36963 \$6.98, © 4Xs-36963 \$6.98.

Performance: Lush Recording: Good

RECORDING OF SPECIAL MERIT

MENDELSSOHN: Violin Concerto in E Minor, Op. 64. TCHAIKOVSKY: Violin Concerto in D Major, Op. 35. Nathan Milstein (violin): Vienna Philharmonic Orchestra, Claudio Abbado cond. Deutsche Grammophon 2530 359 \$6.98.

Performance: Outstanding Recording: Excellent

Nathan Milstein, who is now almost seventy, has been absent from the recording studios for some half-dozen years, but if this Deutsche Grammophon disc of the Mendelssohn and Tchaikovsky concertos is any measure, it certainly has not been because of any falling off in his violinistic or musical prowess; the gleaming tonal quality, the unerring rhythm and intonation, the elegance are all still very much in evidence. The Mendelssohn, especially, gets the kind of mercurially brilliant performance that appeals most to me, although I can understand why some listeners might like a somewhat more expansive treatment of the Tchaikovsky concerto than the unsentimentalized, closely knit one Milstein gives it. However, no one can argue with his absolutely coruscating performance of the finale! Also outstanding is Claudio Abbado's superbly alert orchestral backing and DG's resplendent recording. Somehow, there is a

curious justice in having such a fine recorded performance of the Tchaikovsky come out of Vienna where Eduard Hanslick gave it such a wretched notice on the occasion of its world premiere ("... There are pictures which 'stink in the eye.' Tchaikovsky's Violin Concerto brings to us for the first time the horrid idea that there may be music that stinks in the ear").

Young Itzhak Perlman, ably backed by André Previn and the London Symphony, adopts the sensuous approach to both Mendelssohn and Bruch—though his Mendelssohn finale is amply scintillating in both pace and brilliance. I still prefer the more virile treatment of the Bruch concerto offered by Menuhin and Boult in their recent collaboration for Angel, but some may find the slower-paced and more lush treatment of the Mendelssohn by Perlman and Previn more to their



NATHAN MILSTEIN
Mercurial brilliance for Mendelssohn

taste than 1 do. The recorded sound is full-bodied, spacious, and well balanced. D.H.

RECORDING OF SPECIAL MERIT MONTEVERDI: Madrigals. Sfogava con le stelle (Book 4); Si, ch'io vorrei morire (Book 4); Lamento d'Arianna (Book 6); Dolcissimo uscignolo (Book 8); Ecco mormorar l'onde (Book 2); Ch'io t'ami—Deh bella cara (Book 5); Non più guerra (Book 4); S'andasse amor a caccia (Book 2). Instrumentalists; Monteverdi Choir of Hamburg, Jürgen Jürgens cond. Deutsche Grammophon Archive 2533 146 \$6.98.

Performance: **Highly commendable**Recording: **Good**

Those familiar with the Monteverdi Choir of Hamburg and its conductor, Jürgen Jürgens, from other Archive and Telefunken recordings already know that the present collection of miscellaneous Monteverdi madrigals must be on a high level. The selection is a good one, and Si, ch'io vorrei morire, the four-part Lamento d'Arianna (of which the first part is probably Monteverdi's best-known composition—it was popular even in his own day), and Ecco mormorar l'onde are particular standouts. There are perhaps only two relatively minor interpretative defects. First, the madrigals are sung with several singers per

part, which was done on some occasions in Monteverdi's time, depending on circumstances of participants as well as suitability of text. But most of these madrigals lose in terms of chamber-music intimacy, rhythmic flexibility, and subtlety when performed chorally. Second, the tonal production and diction lean rather more toward the Germanic than the Italian.

However, it must be stated emphatically that these are excellent, stylistically apt performances, and I recommend them with a good deal of pleasure. Regrettably, at least on my advance pressing, there were some moments in the loud choral passages when the recording suffered from overmodulation distortion and buzzing stridency. Let us hope this will be corrected.

MONTEVERDI: Madrigals—Books 3 and 4 (see Best of the Month, page 84)

MOZART, L.: Concerto in E-flat Major; Sinfonia da Camera in D Major; Sinfonia da Caccia in G Major; Sinfonia Burlesca in G Major (see Collections – Bavaria's Courts and Residences)

MOZART, W.A.: Symphony No. 33, in B-flat Major (K. 319); Symphony No. 40, in G Minor (K. 550). Collegium Aureum. BASF KHB-21511 \$5.98.

Performance: Interesting
Recording: Excellent though
reverberant

The Collegium Aureum, a conductor-less European ensemble with a good many Baroque discs to its credit, now takes on two Mozart symphonies and attempts to recreate the orchestral sound that would have been typical in the composer's day. That implies instruments of the period, or reproductions of them, as well as fewer musicians, especially in the string section. Here, for instance, are only nine violins, three violas, two cellos, a doublebass, and the usual winds. Since there is considerable reverberation in the recording ambiance, perhaps even a bit too much, the instrumental sound does not seem thin. Rather, it has an unusual clarity that helps bring out the details of Mozart's scoring. There is also an attractive bite to the strings, especially the violins, whose attack and subtlety of dynamics are perhaps this recording's most interesting feature. The balance, too, is quite revealing, with the winds cutting easily through the string fabric. (This version of the G Minor Symphony, incidentally, is the one with clarinets.)

The Collegium Aureum's performances of both symphonies are thoroughly competent interpretively and are precise instrumentally. To be sure, a conductor at the helm might have added a little more sparkle and tension to these readings, which, I feel, play it a bit safe. Nonetheless, performances of this type do offer interesting contrasts to those versions utilizing an immoderately large number of players. BASF's multilingual program annotations include a list of the ensemble's personnel but regrettably no specifics on the instruments used.

1.K.

PAGANINI: Violin Concerto No. 1, in D Major (see The Basic Repertoire, page 59)

PERGOLESI: Missa Romana in F Major. Boy Soloists of the Escolania Montserrat; Theo Altmeyer (tenor); Siegfried Haertel and Michael Schopper (baritone); Escolania Montserrat; Tölzer Boys' Choir, Collegium Aureum. BASF KHB 21230 \$5.98.

Performance: Precious Recording: Okay

Giovanni Battista Pergolesi was a composer who stood between two worlds. His comic operas usher in an age of lightness, wit, and fancy, but his church music, even granted its operatic tendencies, belongs to the grander, more imposing world of the Baroque. In 1734 Pergolesi's employer, the Duke of Maddaloni, took him from his native Naples to Rome where a performance of his Mass in F was arranged "with all the musicians and violins of Rome." This work, written for six soloists, two five-part choruses, and double orchestra, is a kind of last echo of the old colossal knock-'em-dead grandeur-the sort of old fashion which the composer's own Serva Padrona helped push out of style. The piece was described by the caricaturist Ghezzi (in a phrase quoted on the record liner) as "spirited and out of the ordinary," but he also (the liner notes omit this) called it "frightful." Ironically, Ghezzi's caricature of Pergolesi may be the only authentic portrait of the composer.

One wonders what kind of sopranos performed on that far-off day in 1734. They were not, one suspects, boy sopranos (although they were probably not lady sopranos either). In any case. I am not sure that the sweet, unsophisticated sound of the unnamed choir-boy soloists quite fills the vocal demands of this rather sumptuous music, although certainly this style is preferable to a wobbly, latter-day operatic one. The rest of the singing is strong, and the excellent orchestral playing (on old instruments) is particularly impressive and apropos. The direction could have been a little more "spirituoso e fuori dell'ordinario." The church acoustics add authentic ambiance, I suppose: this is not what I consider ideal recorded sound, but the resonance is well managed and does not get in the way of the music. E.S

PURCELL: Chamber Works (see Collections -Arnold Goldsbrough)

RAMEAU: Airs de Ballet (see CASTELNUO-VO-TEDESCO)

ROUSSEL: Impromptu (see CASTELNUOVO-TEDESCO)

SCHIFRIN: Continuum (see CASTELNUO-VO-TEDESCO)

SCHMITT: Psalm 47 ("Gloire au Seigneur!"), Op. 38; La Tragédie de Salomé, Op. 50. Andréa Guiot (soprano, in Psalm): Gaston Litaize (organ, in Psalm): French National Radio Chorus and Orchestra. Jean Martinon cond. ANGEL S-36953 \$5.98.

Performance: Good Recording: Good

The grandiosity of a Berlioz, the sophisticated barbarism of an Ernest Bloch-these might be used to describe Florent Schmitt's 1904 setting of Psalm 47, though Bloch's major works were a decade away from being set to paper at the time Schmitt's score came to performance. More obviously eclectic in style is the Tragédie de Salomé, a "poème dansé" scored originally for small orchestra in 1907. but revised in 1911 for expanded forces, including an offstage wordless chorus. Even

EPI'S LINEAR SOUND. NOW YOU CAN **HEAR IT BY CALLING A TOLL-FREE NUMBER:**

800-447-4700*

When you call our toll-free number, you won't hear EPI's Linear Sound.

What you will hear, however, is a very pleasant voice telling you the name of the EPI dealer nearest you where you can hear EPI's Linear Sound.

And that's good to hear.



*In Illinois, the toll-free number is 800-322-4400.

CIRCLE NO. 15 ON READER SERVICE CARD





CIRCLE NO. 48 ON READER SERVICE CARD

TCHAIKOVSKY'S PIANO CONCERTOS

Two new sets star Emil Gilels and Michael Ponti Reviewed by DAVID HALL

ABOUT Angel's new Emil Gilels recording of the Tchaikovsky B-flat Minor Concerto there can be no doubt: it is right up there with the half-dozen best currently available performances. Gilels strikes just the right compromise between slashing virtuosity and beautifully nuanced communication of the music's lyricism. This is particularly evident in the finale, which emerges with more subtle dynamic differentiation than is usually encountered. Lorin Maazel and the New Philharmonia are in top form throughout the two-disc Tchaikovsky set, which includes all three concertos, and the recorded sound is just fine in both solo-orchestral balance and room ambiance.

Vox, too, has released a new Tchaikovsky set, and the collaboration of Michael Ponti and Richard Kapp with the Prague Philharmonic Orchestra deserves an A for effort generally, despite the painfully slow pacing of the outer sections of the B-flat Minor Concerto's slow movement. Ponti's performance displays more brilliance and fluency than depth of musicality, but for a good part of the music to which he addresses himself here, fluency suffices. It is only when one gets down to detailed comparison with such formidable competition as Gilels or Gary Graffman that Ponti gets somewhat caught in the crunch. However, Richard Kapp, who conducts the Prague Philharmonic for part of this set, does a highly intelligent and musical job. I was impressed particularly with his handling of the inner woodwind voices in the end movements of the B-flat Minor Concerto. The Third Piano Concerto (the version used here supplements the generally known first movement with the Taniev orchestration of the slow movement and the finale sketches left by Tchaikovsky) does not fare as well either in sound or in accompaniment, which is provided by Louis de Froment and the Luxembourg Radio Orchestra (I reviewed this performance in STEREO REVIEW, November

But it is the Tchaikovsky G Major Concerto that is the major confrontation. Ponti plays the original version, but Gilels opts for the Siloti edition, which in effect cuts the slow movement in half, eliminating most of the introduction with its prominent role for solo violin and cello. A considerable amount of solo-piano elaboration is also missing from the first movement of the Siloti edition. But the full-length G Major Concerto is a forty-five-minute finger buster, and it does lack the musical substance that makes, say, Brahms' two equally large works masterpieces of the repertoire. What Siloti did for the Second Concerto is what Bruckner's well-meaning friends, the Schalks and Loewe, tried to do for the Austrian master's symphonies - make them more palatable to potentially unresponsive audiences.

Comparing these two with other recorded versions of the C Major Concerto is further complicated by the fact that my favorite

version of all—Gary Graffman's with Eugene Ormandy and the Philadelphia Orchestra on Columbia MS 6755—goes along with Tchaikovsky's original for the outer movements, but turns to Siloti in the slow movement. The one other currently available recording of the original, with Igor Zhukov and the Moscow Radio Orchestra under Gennady Rozhdestvensky, is not at all satisfactory, for it thrusts the soloist ruthlessly into the foreground and gives the orchestra a totally different perspective—as a kind of cineramic stereo backdrop.

Ponti and Kapp excel in the slow movement and finale; but the swift basic tempo they adopt for the first movement (possibly in an effort to alleviate its *longueurs*) deprives the opening of its essential largeness of utterance. Both Graffman-Ormandy and Gilels-Maazel are more just in this respect. So we are still without anything resembling a completely satisfactory and authentic recorded performance of the Tchaikovsky Second. (My own solution to this dilemma, for the present, is to sandwich the Ponti slow movement between the Graffman-Ormandy outer movements.)

As for the Third Concerto, the Ponti version engenders moderate interest by including the posthumous slow movement and finale, but it takes a back seat to both the Graffman and the Gilels versions of the usual first movement. Graffman is all energy and forward thrust from the very first measures. And, although the Gilels-Maazel opening sounds downright feeble and earthbound owing to its slow tempo, there is method in Gilels' seeming madness, since that same slow tempo allows him to articulate more effectively the Russian dancestyle secondary theme and in general to create the impression of a bigger and more important piece of music

If you're trying to decide which Tchaikovsky to buy, I do have some recommendations: (1) get the Gilels performance of the B-flat Minor, but wait until it becomes available separately; (2) if you're a real Tchaikovsky buff, get the Ponti package too—at \$9.95 for three discs, it is a bargain.

TCHAIKOVSKY: Piano Concerto No. 1, in B-flat Minor, Op. 23; Piano Concerto No. 2, in G Major, Op. 44; Piano Concerto No. 3, in E-flat Major, Op. 75. Emil Gilels (piano): New Philharmonia Orchestra, Lorin Maazel cond. ANGEL S-3798 two discs \$11.96.

TCHAIKOVSKY: Piano Concerto No. 1, in B-flat Minor, Op. 23; Piano Concerto No. 2, in G Major, Op. 44; Concert Fantasy for Piano and Orchestra, Op. 56. Michael Ponti (piano): Prague Symphony Orchestra, Richard Kapp cond. Piano Concerto No. 3, in E-flat Major, Op. 75; Andante and Finale for Piano and Orchestra, Op. 79 (orch. Taniev). Michael Ponti (piano): Radio Luxembourg Symphony Orchestra, Louis de Froment cond. Vox SVBX 5460 three discs \$9.95.

here, however, there are elements in Schmitt's music that anticipate the work of future composers; for instance, the opening of the final Dance of Terror presages for me the concluding episode of Bartók's Miraculous Mandarin Suite, dating from 1918-1919. In general, Schmitt's music as represented here stands rather apart from the refined sensibility of Debussy and Ravel, being more akin in its density of texture to the music of Vincent d'Indy. On its own level of discourse, though, it is highly effective stuff.

Martinon's is the first recording of Psalm 47 since Angel's 1953 issue conducted by Georges Tzipine. La Tragédie de Salomé has received more attention on records over the years. The composer and Piero Coppola conducted 78-rpm performances; on LP, Paul Paray with the Detroit Symphony and, more recently, Antonio de Almeida with the New Philharmonia Orchestra have kept Schmitt's name in the pages of Schwann.

The Martinon performances are endowed with ample vigor and color and with enthusiastic if not always refined choral singing in Psalm 47. The recorded sound is bright, though to my ears noticeably colored by the acoustic of the recording locale. But if you like big, super-grandiose sound to show off your playback equipment, you can't go wrong with this recording.

D.H.

SCHUBERT: Impromptus (see BEETHOVEN)

SORGE: Toccata per Ogni Modi (see FISCH-ER)

SULLIVAN: The Tempest, Incidental Music; The Merchant of Venice, Suite; In Memoriam, Overture. City of Birmingham Symphony Orchestra, Sir Vivian Dunn cond. KLAVIER KS 521 \$5.98.

Performance: Lilting and laudable Recording: Excellent

Hardly anybody needs to be told any more how Arthur Sullivan almost ruined his career by succumbing to the blandishments of Queen Victoria that he devote himself to "serious" composition. From that side of Sullivan came some of the most boring oratorios to afflict concert audiences of the nineteenth century, as well as the opera Ivanhoe, which practically bankrupted the D'Oyly Cartes, who had built a special opera house in which to harbor the disaster. Fortunately, none of that music is here to put a blight on this happy album, which is made up in the main of Sullivan's much earlier efforts. In fact, he wrote the incidental music to Shakespeare's The Tempest when he was only nineteen as an examination exercise at the Conservatory in Leipzig. A year later it was performed at a Crystal Palace concert: it's hard to understand why it has not been a popular item ever since. Listen to the Banquet Dance - all grace and sweet airs and twinkling fancies: one is reminded right away that Schumann and Mendelssohn were powerful influences, but the voice is already Sullivan's own.

The happy combination of Shakespeare & Sullivan continues to good effect in the suite from the music he composed for *The Merchant of Venice* in 1871—the same year. by the way, that he began collaborating with Gilbert. A disarming *hourrée* and an infectious waltz are the centerpieces of this suite, which heralds the treatment the composer would give *The Gondoliers*, and which compares favorably not only with Fauré's music for *The*

Merchant but also with Gösta Nystroem's—another distinguished but seldom-heard piece. (What happens to all this fine incidental music when Shakespeare's plays are mounted? Only Mendelssohn's for A Midsummer Night's Dream seems ever to be used in a real stage production.)

The record concludes with the well-crafted overture In Memoriam. Sullivan wrote it with Tennyson in mind—they were friends in 1866 when the piece was written—and for years afterward if you went to a concert in England you were all too likely to hear In Memoriam. It's something of a bore, but not fatally. I have been playing this record on and off for more than a year since it first came out abroad on the EMI label, and even the solemn-faced overture has rather grown on me.

P.K.

SZYMANOWSKI: Mythes, Op. 30 (see FRANCK)

TCHAIKOVSKY: Violin Concerto in D Major, Op. 35 (see MENDELSSOHN)

TELEMANN: Horn Concerto in E-flat Major (see HAYDN)

VIVALDI: Horn Concerto in F Major (see HAYDN)

WOOLLEN: Lento (see CASTELNUOVO-TEDESCO)

COLLECTIONS

BAVARIA'S COURTS AND RESIDENCES-AUGSBURG. Leopold Mozart: Concerto in Eflat Major for Two Horns, Strings, and Continuo; Sinfonia da Camera in D Major for Horn, Violin, Two Violas, and Continuo; Sinfonia da Caccia in G Major for Four Horns, Strings, Timpani, and Continuo; Sinfonia Burlesca in G Major for Two Violins, Two Cellos, Bassoon, and Double Bass. Hermann Baumann (horn); Concerto Amsterdam, Jaap Schröder cond. Franz Buhler: Grand Sonata in E-flat Major for Piano, Clarinet, String Ouartet, and Two Horns. Consortium Classicum. Friedrich Hartmann Graf: Quartet No. 2, in G Major; Quartet No. 3, in C Major. Frans Vester (flute): Jaap Schröder (violin): Wiel Peeters (viola); Anner Bylsma (cello). BASF KBF-21195 two discs \$9.98

Performance: Good Recording: Good

Some attractive if hardly indispensable pieces are gathered together here, all brightly played by musicians familiar from their recordings on the Telefunken and MHS labels. It might have made more sense to offer the two discs independently, but without Papa Mozart's coat-tails to hold on to. Franz Bühler (1760-1824) and Friedrich Hartmann Graf (1727-1795) would probably have little hope of being noticed. It is the Mozart disc that is the attraction here, although the four works on it are all pretty much alike. According to the annotation, the score of the Sinfonia da Caccia calls for "several dogs which bark, the others cry together ho ho etc., however only for six bars." This effect is not included, and one wonders why, since it is done in various other works (such as Piston's ballet The Incredible Flutist): it is easily dispensed with, though, for these ingratiating performances need no such embellishment.

The chamber works on the second record (Continued on page 116)



We gave our best turntables the shaft.

And they're better because of it.

The BSR 810 and 710 have their brains in their shaft. A carefully machined metal rod holding eight precision-molded cams. When the cam shaft turns, the cams make things happen. A lock is released, an arm raises and swings, a record drops, a platter starts spinning, the arm is lowered, the arm stops, the arm raises again, it swings back, another record is dropped onto the platter, the arm is lowered again, and so on, for as many hours as you like.

Deluxe turntables from other companies do much the same thing, but they use many more parts—scads of separate swinging arms, gears, plates, and springs—in an arrangement that is not nearly as mechanically elegant, or as quiet or reliable; that produces considerably more vibration, and is much more susceptible to mechanical shock than the BSR sequential cam shaft system.

When you buy a turntable, make sure you get the shaft. The BSR 710 and 810. From the world's largest manufacturer of automatic turntables.



BSR (USA) Ltd., Blauvelt, New York 10913

CIRCLE NO. 7 ON READER SERVICE CARD







IENRICO CARUSO

If they're not going to make them like that any more, then we're very lucky we can still hear the original Eric Salzman reviews three memorial albums

Here's an easy one: Who is the most famous singer of all time?

A century after his birth and more than a half-century after his death, Enrico Caruso still bestrides the narrow operatic world like a colossus. They don't make 'em like that any more.

The voices of Farinelli and Jenny Lind, of Senesino. Malibran, and Pasta are legendary: no one now alive ever heard them sing. But anyone can hear Caruso, and millions have

It is not going too far to say that it was Mr. Edison's phonograph that made Caruso the most famous singer that ever lived. But Caruso amply repaid the debt by helping to establish phonograph recording as a serious art for the masses. Remember those Carusos in grandma's attic? Caruso was literally the first media artist, the first major performer to reach a mass audience through mechanical means.

It was Caruso's good fortune that early recording technology was at its best in just exactly the place where his talent lay. Female voices hardly fit at all inside those awkward horns that preceded the invention of microphones, and the resonant vocal qualities of the great baritones and basses also seem to have been elusive; of these singers we hear mostly vocal shadows. But with Caruso we seem really to experience that golden torrent of sound about which all of his contempories were in agreement. Even on the earliest of his discs we seem to hear, not just an old recording of his voice, but Caruso singing.

This remarkable match between a rich and complex voice and the apparently limited possibilities of a primitive technological medium shows up strikingly in some of the ensemble recordings, in which Caruso's voice is almost embarrassingly dominant. Perhaps acoustics are not the whole explanation: he must have had an instinct for just exactly how to sing for that terrifying horn.

But whatever it was, it came across and still does.

Caruso was a Victor Talking Machine artist, and RCA, heir to that rich legacy of early recordings, is celebrating the great man's centenary by proving that the Caruso magic still works. They have therefore issued, first, two volumes of Caruso's "greatest hits." Nothing to make a big fuss about here, for they are all the old, familiar songs and arias (see listing below) that sold so well in the original 78-rpm versions.

But the other part of this celebration isfor opera and Caruso lovers, at leastsomething of an Event: a four-disc package of fifty-nine of Caruso's recordings, nine of them "new" (never before released in any form, that is) and the rest never before released on LP. The grapevine that connects the tireless record collectors of the world has been abuzz for the past few months with the news of another such collection, one put out by RCA's Italian division and containing every scrap of Caruso material they could lay a stylus on. This fearful hodgepodge reportedly contains a great deal of material transferred without speed compensation from the 78-rpm originals. In the old days, "78" was always a rather approximate figure, and the only way really to get close to the original performance is to play these recordings for pitch (providing, of course, you know what that was); the speed then takes care of itself. If this is not done, of course, the voice is simply misrepresented. The RCA/USA collection does pay attention to these niceties, for not only have the 78-rpm originals been selected with great attention to surface quality, but this material has been transferred at the proper speed-or pitch, if you prefer. This holds true for the two Greatest Hits" albums as well.

The overall result: six discs, eighty-eight performances, with recording dates ranging from early 1904 to September 1920. The range of repertoire is surprising—from

Handel to Rubinstein's Nero and Goldmark's Queen of Sheba to Your Eyes Have Told Me What I Did Not Know. Gounod and Bizet are well represented, along with what seems like at least half the score of Martha. There are songs in English (well, sort of), French, Spanish, and even Latin. But obviously the Italian arias, songs, and ensembles are the heart of the matter. And what heart! What singing!

There are four Luciu Sextets and three Rigoletto Quartets (with various distinguished colleagues), as well as three "Celeste Aïdas"'s, including an unreleased one with a beautiful piano attack on the final high B-flat. Here is the Coat Song from Puccini's Bohème (baritone music, of course: Caruso's middle register was as rich and secure as his top), an aria from Leoncavallo's Bohème, and a Leoncavallo song with the composer at the piano. There is a "Salut, demeure" with two surprising, gorgeous head tones and Handel's Largo complete with cadential trill.

Perhaps the most striking thing about all of this singing is its essential simplicity, directness, and even purity. The pitches are clean, accurate, and strong, the phrasing natural, expressive, and never forced or mannered. There are no glides, swoops, wobbles, agonized ritardandos, or heartrending throat-catches. There is exactly one sob (at the required place in "Vesti la giubba"). Whatever Caruso may have done in live performance, he seemed instinctively to understand the delicate balance between expression and firmness demanded by the permanence of recording. His interpretations always wear well; he never had to resort to rhetorical gestures or mannerisms to sound expressive. He moves with remarkable ease from operatic style to French salon music and Neapolitan popular songs without ever sounding either affected or condescending.

ARUSO was, it is easy to forget, the representative of a living, not a "classical" tradition. Leoncavallo's Mattinata was recorded in Italy in 1904-it is the oldest recording here — with the composer. Many of the finest Verdi recordings were made within a decade of the composer's death, and Puccini actually outlived his outstanding interpreter by several years. And of course the sentimental song tradition-of which the Neapolitan canzonetta was the Italian representativewas at its popular height. Great artists and great "technique" do not appear as abstract entities but as responses to cultural and expressive needs. Caruso had, of course, centuries of singing tradition behind him, but there is also a "modern" (circa 1900) quality to his singing which suited it so beautifully for verismo opera, for certain kinds of pop songs, for the modern oversized opera house, and for recording. This balance between the traditional requirements of beautiful singing, placement of the voice, and flexibility, and the new needs for a huge sound, sentiment, glamour, and assertive personality were perfectly understood and met by Caruso.

Probably his single most astonishing quality is the swelling tone so much in evidence on such arias as "O Paradiso." But he could build a whole phrase just as much as he could open out a single tone, and in the older

music he turns out some extraordinarily firm and natural cadenzas and runs. There is a naturalness of melodic expression that is all too easy to underestimate. The melodic statement of an aria or a song is not an excuse to let it all hang out: rather, it is a beginning, beautiful and expressive for its own sake, but also creating the expressive tension that will lead to the rest of the aria or ensemble. Listen to the three versions of the Rigoletto Quartet (all on the four-record album: the Abott/Homer/Scotti version is an obvious omission from the "Greatest Hits" records): each time the tension created by the opening phrase sets up the energies of the whole ensemble. If the other singers are not always able to follow through, it is probably a result of their lesser abilities to project through an awkward new medium as well as the limitations of the medium itself in capturing their best qualities. The orchestral shortcomings should also be mentioned here. The pathetic little bands (the arrangers and conductors are, with one exception, never named) crowded into the Victor Talking Machine studios rarely seem to represent even the vaguest approximation of what a recorded version of the original orchestration might sound like. Only with the songs was some real skill applied to the solving of this then (and still!) difficult problem.

No matter. No one listens to Caruso records for the quality of orchestral sound anyway, and other limitations will be overlooked as well. What should be noted, beyond the qualities of the individual record-

ENRICO CARUSO: The Greatest Hits of Enrico Caruso, Volume 1. Verdi: Rigoletto: Questa o quella; Parmi veder le lagrime. Aïda: Celeste Aïda. Il Trovatore: Di quella pira. La Forza del Destino: Solenne in quest'ora (with Antonio Scotti, baritone). Ponchielli: La Gioconda: Cielo e mar! Meyerbeer: L'Africana: O Paradiso. Flotow: Martha: M'appari tutt'amor. Halévy: La Juive: Rachel, quand du Seigneur. D'Hardelot: Because. Tosti: L'alba separa dalla luce l'ombra. Cardillo: Core 'ngrato. Mascagni: Cavalleria Rusticana: Addio alla madre. Di Capua: O sole mio. Enrico Caruso (tenor); orchestra. RCA M ARM1-0278

ENRICO CARUSO: The Greatest Hits of Enrico Caruso, Volume 2. Leoncavallo: Pagliacci: Vesti la giubba; Mattinata (with Ruggiero Leoncavallo, piano). Bizet: Carmen: La fleur que tu m'avais jetée (Flower Song). Puccini: La Bohème: Che gelida manina. Tosca: Recondita armonia; E lucevan le stelle. Flotow: Martha: Dormi pur (with Frances Alda, soprano: Josephine Jacoby, mezzo-soprano; Marcel Journet, bass). Kahn: Ave Maria (with Mischa Elman, violin; unnamed pianist). Verdi: La Traviata: Brindisi (with Alma Gluck, soprano; Metropolitan Opera Chorus and Orchestra, Giulio Setti cond.). Gounod: Faust: Salut, demeure chaste et pure. Donizetti: L'Elisir d'Amore: Una furtive lagrima. Lucia di Lammermoor: Chi mi frena (with Amelita Galli-Curci, soprano; Minnie Egener, mezzo-soprano; Angelo Bada, tenor; Giuseppe De Luca, baritone; Marcel Journet, bass). Handel: Xerxes: Ombra mai fu. Cohan: Over There. Enrico Caruso

ings, is the evolution in time (a decade and a half) of a great voice at its maturity and of early recording technique in its most exceptional achievement. It was often said that Caruso's voice was at its peak when he first arrived in America and began recording for Victor, and the evidence here would partially support that view. In the earlier recordings Caruso seems to show more of that thrilling trumpet-like sound that seems to be the sum total of what some singers and listeners expect from tenors. Yet Caruso always had a rich, resonant middle and lower range, and this almost baritonal quality seems to have gained ground in later years. But these generalizations are tricky. Recording technique did not remain staticthere was overall improvement, but not on a straight line, and tonal qualities vary enormously even on recordings made within a short time of each other. A high percentage of the later recordings are songs, and the vocal approach is much less stentorian and rhythmic, with more suavity, gentleness, and intimacy (but never the sobbing sentimentality of a Beniamino Gigli). Clearly, Caruso was one Italian tenor with more than one string to his vocal bow.

I regret only that RCA has seen fit to merge fifty-nine recordings-arias, ensembles, songs, duplications, familiar and unfamiliar material - in one big set. It would have been easy to release two operatic records and two discs of songs; failing that, a totally chronological approach would have been a bit more instructive. The "Greatest

(tenor); orchestra. RCA M ARM1-0279 \$5.98.

ENRICO CARUSO: Songs and Arias. Verdi: Aida: Celeste Aida (two versions, one previously unpublished take). Rigoletto: Bella figlia dell'amore (three versions: with Bessie Abott, Louise Homer, Antonio Scotti; with Luisa Tetrazzini, Josephine Jacoby, Pasquale Amato: with Marcella Sembrich, Josephine Jacoby, Antonio Scotti). La Forza del Destino: O tu che in seno agli angeli; Sleale! It segreto (with Giuseppe De Luca). Un Ballo in Maschera: Ma se m'è forza perderti. Il Trovatore: Miserere (with

Hits" volumes, on the other hand, are available separately.

Aside from these practical considerations. the production is excellent and the careful speed-control technique produces excellent results in vocal quality. Again and again one is amazed at how much of the total sense of Caruso's vocal magic comes through, and his dominance of some of those ensemble recordings - which may have been the reason why some of them remained unreleased - is, if not always musically apt, simply astonishing.

The "Greatest Hits" albums have brief program notes by Francis Robinson, assistant manager of the Metropolitan. The fourdisc set—which I am reviewing from early pressings - is to be marketed with an illustrated booklet that was not available at the time of this writing.

On the subject of Caruso, the reader should also be aware that there is on the market a boxed, fourteen-record set, complete with illustrated, annotated brochure. entitled "Complete Recordings of Enrico Caruso" (Murray Hill Records 920328). The recordings (apparently not including the nine unpublished takes offered by RCA) are arranged in chronological order, a quick spot check shows the quality to be perfectly reasonable, and the stated price for the fourteen discs is \$15.95 (!). If there is a hitch, it is that the set may not be on the market for long-for legal reasons. -J.G.1

Frances Alda, previously unpublished take). Donizetti: Lucia di Lammermoor: Sextet (three versions: with Marcella Sembrich, Gina Severina, Francesco Dadde, Antonio Scotti, Marcel Journet; with Amelita Galli-Curci, Minnie Egener, Angelo Bada, Giuseppe De Luca, Marcel Journet, previously unpublished: with Luisa Tetrazzini, Josephine Jacoby, Angelo Bada, Pasquale Amato, Marcel Journet). Don Sebastiano: Deserto in terra. Il Duca d'Alba: Angelo casto e bel. Bizet: Carmen: Flower Song; Parlezmoi de ma mère (with Frances Alda, previously unpublished take). The Pearl Fishers: De mon amie, fleur endormie. Puccini: La <mark>Bohème: O Mim</mark>ì, tu più non tor<mark>ni</mark> (with Antonio Scotti): Vecchia zimarra (Coat Song). Goldmark: The Queen of Sheba: Magiche note. Gounod: La Reine de Saba: Inspirez-moi, race divine. Faust: Mon coeur est pénétré . . . Attends! Voici la rue (with Geraldine Farrar). Flotow: Martha: Solo. profugo, reietto (with Marcel Journet): Che vuol dire ciò? (with Frances Alda, Josephine Jacoby, Marcel Journet). Gomes: Lo Schiavo: Quando nascesti tu. Leoncavallo: La Bohème: Io non ho che una povera stanzetta. Lasciati Amar. A. Rubinstein: Nero: Oh! lumière du jour (previously unpublished). Barthélemy: Adorables tourments: Triste ritorno. Tosti: Pour un baiser: Parted; La Mia canzone; L'Alba separa (previously unpublished take). Fauré: Les Rameaux (The Palms); Sancta Maria. Alvarez: La Partida (previously unpublished in the United States). Chapí: El Milagro de la Virgen: Flores purisimas; and twenty-one others. Enrico Caruso (tenor); orchestra and piano accompaniment. RCA M ARM4-0302 four discs \$23.98.

are pleasant to hear and perhaps even more enjoyable to perform. Still, Bühler's sonata is pretty thin stuff (it impressed me as a series of paraphrases on vaguely familiar tunes), and, while Graf's quartets have the duple advantage of conciseness and a greater variety of mood, none of these works really demands a second hearing.

There are some crudities of translation in some of the titles, including that of the collection itself (rendered as "Bavarian's Courts and Residences"), but the only really disturbing factor is the condition of the record surfaces, which in my set are disfigured by pops, clicks, swishes, and a nasty gash across side four. Since the material is slight to begin with, there is little motivation for putting up with these irritations. (BASF jackets have an im-

ported look, but the discs are pressed here; nearly all of those I have received have troublesome surfaces.)

R.F.

COMPUTER MUSIC. Lejaren Hiller and Robert Baker: Computer Cantata (1963). Helen Hamm (soprano); University of Illinois Contemporary Chamber Players, Jack Mc-Kenzie cond. John Melby: 91 Plus 5 (1971) for Brass Quintet and Computer. Contemporary Brass Quintet, Roman Pawlowski cond. CRI SD 310 \$5.95.

Performance: Man vs. machine Recording: One old, one new

Computer music, a kind of second-generation stepchild of electronic music, seemed to offer a good deal of promise a few years ago, but, as with many technological "solutions," a certain amount of disillusion seems to have set in. This is not only a matter of the new humanism—organic foods, back to the country, and all that—but of practical considerations as well. Sure, given enough time and money, you should be able to produce any sound at all. But computer time is expensive.

Be that as it may, it is notable that some of the most important work with computers has involved live performers as well as strictly computer-generated sound. Lejaren Hiller, probably the best-known "computer composer" in this country (one never hears about his erstwhile collaborator, Robert Baker, who is virtually unmentioned here), has done most of his work for live-performance situations. His (and Baker's) Computer Cantata, written in 1963, uses both synthesized sound and written-out material—texts and music—generated or organized through simple programming.

Computer Cantata was recorded by some very excellent Illinois musicians and released on Heliodor a number of years ago. When it first came out I was struck by its size and boldness. Hiller's notes for the current re-release are almost apologetic about the work's lack of aesthetic unity, but frankly that seemed to me the work's greatest virtue—the computer itself used to strike out against aesthetic regimentation. The piece hardly sounds as wild today as it did when it first appeared, and the recording is disappointing in respect to Helen Hamm's voice, which seems distant and overwhelmed. But in other respects this re-release is a worthwhile project and an important document.

John Melby's 91 Plus 5 is a more controlled, aesthetically unified attempt to match a computer-generated tape with the live brass sounds (compositional origins unspecified). The simplicity of the computer sounds is quite intentionally contrasted with the richness of the horns, and the result is attractive in a small-scale sort of way. Good performance and recording.

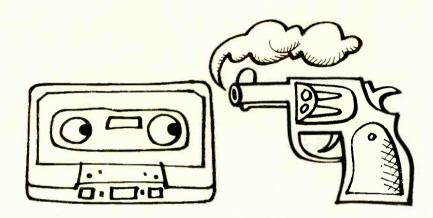
E.S.

ARNOLD GOLDSBROUGH: Purcell and Handel Chamber Works. Handel: Duet, No, di voi non vuo fidarmi; Harpsichord Suite No. 7, in G Minor (Book I); Harpsichord Suite No. 4, in D Minor (Book II). Purcell: Duet, An Elegy on the Death of Queen Mary (Z. 504); Harpsichord Suite No. 4, in A Minor (Z. 663); Harpsichord Suite No. 5, in C Major (Z. 666); Turn then thine eyes (Z. 629/50c); Man is for the woman made (Z. 605/3): Love thou art best (Z. 596); No, resistance is but vain (Z. 601/2a). Ann Dowdall (soprano): Patricia Clark (soprano); Terence Weil (cello): Arnold Goldsbrough (harpsichord). L'OISEAU-LYRE OLS 144 \$5.98.

Performance: Warm and communicative Recording: Poor

The music chosen for this disc alternates very pleasantly between harpsichord solos and vocal pieces, the majority of them duets. The opening Purcell piece, an intimate and extremely touching duet, is separate from Purcell's other musical obsequies for the queen: I don't remember having come across it before on records, and I would heartily recommend it to Purcell enthusiasts. The harpsichord suites are relatively familiar, but, aside from "Turn then thine eyes" from The Fairy Queen, the vocal numbers, which are taken from Purcell's incidental music for theatrical productions, are little known but well worth

(Continued on page 118)



Our cassettes don't self-destruct!

Columbia cassettes are made to stay alive for a long time. In fact, they're the only fail-safe cassettes on the market.

We have low noise/high output gamma-ferric oxide tape. And thanks to a 20-20,000 Hz frequency range, what you hear is what you get.

We use oversized Mylar slip sheets; impregnated with graphite. So there's no friction. Then the tape is guided along by Delrin rollers, mounted in metal pins. You can't find a more surefooted cassette.

And to top it off, each cassette comes with two extra selfsticking recording labels, an index and a bonus coupon. That gives you one free C-60 cassette after you've bought 11.

Our cassettes are something special. We call them fail-safe. You'll call them fantastic.





When two loudspeakers sound different, at least one of them is wrong. Maybe both.

problems only complicate the matter without change.



Unpleasantly Distorted Reproduction

Which is better: the Rectilinear III, at \$299, or a comparably priced but totally different-sounding speaker by another reputable manufacturer?

The ready answer to that question by a nice, clean-living salesman or boy-scout hi-fi expert is: "It's a matter of taste. Whichever you prefer for your own listening. They're both good."

We want you to know how irresponsible and misleading such bland advice is.

Think about it:

A loudspeaker is a reproducer. The most important part of that word is the prefix *re*, meaning *again*. A loudspeaker produces again something that has already been produced once.

Not something new and different.

Therefore, what it correctly reproduces should be identical to the original production. And *identicalness* isn't a matter of taste.

For example, it isn't a matter of taste whether the body shop has correctly reproduced the original color of your car on that repainted fender. Nor is it a matter of taste whether your mirror correctly reproduces your visual image. Is the reproduction identical to the original or isn't it?

Okay. We know. The ear is less precise than the eye. And in the case of loudspeakers, it's usually impossible to compare the reproduction and the live original side by side. Furthermore, the speaker is only a single link in a whole chain of reproducers. But these



Seductively Distorted Reproduction

problems only complicate the matter without changing the basic principle. The reproduction is either right or wrong. Two different-sounding reproductions can't both be identical to the original.

The common fallacy is to call the reproduction wrong only when it's obviously unpleasant (fuzzy or shrieky highs, hollow midrange, etc.). But what about a pleasingly plump bass, lots of sheen on the high end, and that punchy or zippy overall quality known as "presence"? Equally wrong. And, because of the seductive "hi-fi" appeal, much more treacherous.

To glamorize the original that way amounts to having a built-in and permanently set tone control in your speaker. For some program material it can be disastrously unsuitable. Like the funhouse mirror that makes everybody look tall and thin, it's great for short and fat inputs only.

At Rectilinear, we design speakers to approach facsimile reproduction of the input as closely as is technologically possible. We restrict the "taste" factor

to twiddling the tone controls of our amplifier in the privacy of our home. Not in our laboratory.

The Rectilinear III is our best effort to date in this direction.
And our inspiration for it was a totally different and rather impractical design: the full-range electrostatic speaker.

Any serious audio engineer will tell you that electrostatics

The Truth: Undistorted Reproduction

te whether original Nor is it a three ectrostatics are inherently superior to conventional speakers in producing an output that's identical to the input. This superiority is due to scientifically verifiable characteristics, such as flatness of frequency response and low time delay distortion.

The trouble is that electrostatics create tremendous problems with amplifiers, have difficulty playing *really* loud without distortion and are also somewhat deficient in bass. But—they're accurate, undistorted "mirrors" of sound.

The Rectilinear III is the first successful attempt to give you this electrostatic type of sound in a conventional speaker without any of the above problems.

It allows you to hear what composers, musicians and record producers have created for you and not what some speaker

manufacturer thinks will please you.

So, next time you're in a store and you hear another \$299 speaker that sounds different from ours, you'll have an idea which of the two is wrong.

Rectilinear III floor-standing speaker

And which is the one to buy.

Rectilinear III
floor-standing
speaker
(6 drivers, 3-way
crossover)

Rectilinear Research Corp., 107 Bruckner Blvd., Bronx, N.Y. 104: Canada: H. Roy Gray Limited, Ontario



CIRCLE NO. 49 ON READER SERVICE CARD

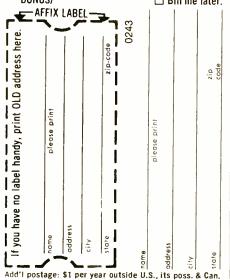
Planning ? to move.

Let us know 6 to 8 weeks in advance so that you won't miss a single issue of STEREO REVIEW.

Attach old label where indicated and print new address in space provided. Also include your mailing label whenever you write concerning your subscription. It helps us serve you promptly.

Write to: P.O. Box 2771, Boulder, Colo. 80302, giving the following information.

☐ Change address only.
☐ Extend subscription. ☐ Enter new subscription.
☐ 5 years \$26 (2) ☐ 3 years \$18 (3) ☐ 1 year \$7 ☐ Payment enclosed (1 extra issue per yr. as a BONUS) ☐ Bill me later.



hearing. The only Handel vocal here is a fascinating curiosity, for the outer movements are none other than "For unto us" and "All we like sheep," which Handel was to rewrite as choruses a few months later in 1741 for Messiah (Musical Heritage Society has this Italian duet on MHS 1453 in an equally appealing performance). Finally, there are two Handel harpsichord suites, the familiar D Minor with the famous sarabande and the large-scale Suite No. 7, in G Minor, from Book I (not No. 6, in G Minor, from the second book, as the jacket and notes have it).

The main purpose of this disc, however, is less to anthologize familiar and unfamiliar Purcell and Handel than to pay tribute to harpsichordist Arnold Goldsbrough (1892-1964). The record was compiled from BBC broadcasts in which he participated as harpsichordist, solo as well as continuo, and director. His name will be familiar to those who own the volumes devoted to Baroque music in RCA's "History of Music in Sound" series, for many of which he served as continuo organist, harpsichordist, and conductor. Not only did Goldsbrough hold numerous posts as organist, but he was also professor of organ at the Royal College of Music in London. This disc gives us a fine opportunity to assess his abilities. Since the selections are from live broadcasts rather than commercial recording sessions, there are any number of minor flaws, but if you can look beyond the blemishes you'll find some very warm, imaginative, and stimulating playing and a tremendous ability to communicate. The two sopranos, by the way, are excellent, and the vocal works are perhaps the most enjoyable portion of the disc. The simulated stereo is not bad, though I wish the sound were cleaner. No texts.

RECORDING OF SPECIAL MERIT

PHILLIP JONES BRASS ENSEMBLE: Classics for Brass. R. Strauss: Fanfare "Stadt Wien." Grieg: Funeral March for Rikard Nordraak. Bozza: Sonatine. Dukas: Fanfare "La Péri." Jolivet: Fanfare "Narcisse." Poulenc: Sonata for Horn, Trumpet, and Trombone. Schuller: Symphony for Brass and Percussion. Philip Jones Brass Ensemble, Elgar Howarth cond. ARGO ZRG 731 \$5.98.

Performance: A-1
Recording: Very good

Philip Jones and his twenty players have come up with as lively and varied brasspercussion fare as I have heard on one disc in a long time. The Strauss and Dukas pieces are conventionally festive, but highly effective. The Grieg, written for piano in 1866 in memory of a friend, is remarkably moving in its brass-percussion guise (Grieg himself arranged the piece for band and requested that it be played at his own funeral). The pieces by Eugène Bozza and André Jolivet add a bit of welcome French glitter to the program, and the Poulenc sonata tops off matters with its own special brand of music-hall sass.

By far the most substantial and brilliant work on the record, for my taste, is Gunther Schuller's Symphony for Brass and Percussion. The piece is altogether brilliant in both ideas and scoring, with virtuosity coming to the fore in the end movements and a stunning command of color and harmonic texture set on display in the slow movement (scored chiefly for muted trumpets, somewhat after the fashion of Carl Ruggles' celebrated *Angels*). Unlike most of the brass repertoire,

Schuller's work keeps clear of the diatonic and modal. It is almost wholly chromatic in texture, and its healthy lacing of post-bop jazz flavor keeps things moving horizontally as well as vertically.

I compared the Jones Ensemble performance with a Columbia recording conducted by Dimitri Mitropoulos (long out of print). The Americans point their figurations, phrase endings, and rhythmic patterns somewhat more sharply, but the Britishers are by no means rigid in their performance. (The closer microphone pick-up used for the Columbia recording may contribute to this impression.) The Argo recording, taken as a whole, has excellent sound, with a just-right blend of spaciousness and presence. And the handsome performances combine brilliant virtuosity with impeccable musicianship. A most enjoyable disc!

D.H.

RECORDING OF SPECIAL MERIT

JANIS ZABERS: Operatic Recital. Puccini: La Bohème: Che gelida manina. Tosca: Recondita armonia; E lucevan le stelle. La Fanciulla del West: Che ella mi creda. Mascagni: Cavalleria Rusticana: Tu qui. Santuzza (with R. Frinberga, soprano); Addio alla madre. Verdi: La Traviata: De' miei bollenti spiriti. Rigoletto: Ella mi fu rapita. Il Trovatore: Ai nostri monti (with L. Andersone, mezzosoprano). Janis Zabers (tenor): Latvian Radio and Television Symphony Orchestra: Latvian Opera and Ballet Theater Orchestra; various conductors. KAIBALA 40D02 \$6.00 (postpaid from Kaibala Records, P.O. Box 512, Oreland, Pa. 19075).

Performance: Exceptional Recording: Fairly good

It is never too late for discoveries. Recordings of singers have been my field of interest during the entire lifetime of Janis Zabers (1935-1973), but I admit never having heard his name before the arrival of this record from an equally recondite source. As is usually the case with modest productions of this kind, the jacket notes are abundant in hyperboles but rather short on specific data. I learned that Zabers graduated from the Latvian State Conservatoire in 1961 and went to Rome for further studies. The rest of his career is vaguely etched, but this sentence is all too tragically clear: "It had seemed that it would be only a matter of time before Zabers would reach the summit of recognition when fatal illness cut short his brilliant future.'

What emerges from this technically quite adequate disc (in electronic stereo) is the pure and gleaming voice of a lyric spinto, produced with effortless ease and with a clear and pointed diction. The style is exuberantly Italianate, but without lachrymose excesses and without musical slovenliness. At times, it recalls the young Giuseppe di Stefano-need I reach for a better recommendation? The singer is fully up to the various challenges of this music, and sails through it in admirable fashion (a few slight pitch lapses aside). He is assisted by an adequate Santuzza, a fine, vivid Azucena, and four competent Latvian conductors. Were it not for this record, we would have never known that such a brilliantly gifted artist ever existed! The loss of such talent recalls the tragic fate of Fritz Wunderlich, Joseph Schmidt-and the first Tristan, Ludwig Schnorr von Carolsfeld (1836-1865). How the Metropolitan Opera could have used such a singer in this 1973-1974 season!

AKAI's 4-Channel Challenge

We challenge any other manufacturer in the world to surpass the performance of AKAI's new 4-channel component combination. You can pay more. But you can't buy better.

Here they are

First is AKAI's new AS-980 4-channel receiver. Endowed with sophisticated features for unparalleled performance. Sensitive and powerful, the AS-980 provices a continuous output of 12FW (30 x 4). Plus 4 separate 4-channel modes: Discrete, SQ, RM, and built-in CD-4 with individual separation control. It's everything you'd expect AKAI's ultimate receiver to be expect AKAI's ultimate receiver to be.

Unequalled reproduction quality is yours with AKAI's new GX-280D-SS. It's a fully discrete 4-channel tape deck that's also 2-channel compatible. The utilization of 4 individual heads—including AKAI's exclusive GX glass and crystal heads (dust free and virtually wear free)—and 3 superbly engineered and balanced motors make this unit the profess onal 4-channel tape deck for recording and playback.

Together, these units are AKAI's unbeatable 4-channel challenge—providing professiona 4-channel capabilities that no other equipment combination can match tion can match

Both the AS-980 receiver and the GX-280D-SS tape deck are available at your nearest AKAI Dealer ... Whenever you're ready to make that ultimate step up. That's AKAI's 4-channel challenge.



The Innovators

AKAI America, Ltd., P.O. Box 55055, Los Angeles, CA 90055

STEREO REVIEW MARKET PLACE

NON-DISPLAY CLASSIFIED: COMMERCIAL RATES: For firms or individuals offering commercial products or services, \$1 60 per word (including name and address). Minimum order \$16.00. Payment must accompany copy except when ads are placed by accredited advertising agencies Frequency discount: 5% for 6 months; 10% for 12 months paid in advance

READER RATE: For individuals with a personal item to buy or sell, \$1.00 per word (including name and address). No minimum! Payment must accompany copy. DISPLAY CLASSIFIED: One inch by one column, \$215.00. Two inches by one column, \$430.00. Column width 2-1.4. Advertiser to supply film positives. Please

write or phone for frequency rates.

GENERAL INFORMATION: First word in all ads set in bold caps at no extra charge. All copy subject to publisher's approval. All advertisers using Post Office Boxes in their addresses MUST supply publisher with permanent address and telephone number before ad can be run. Closing Date. 5th of the 2nd month preceding cover date (for example. March issue closes January 5th). Send order and remittance to Hal Cymes, STEREO REVIEW. One Park Avenue, New York, New York. 10016.

EQUIPMENT

WRITE for quotation on any Hi-Fi components: Sound Reproduction Inc., 460 Central Avenue, East Orange, N.J. 07018. 201-673-0600.

NO fair trade laws in D.C. Write for discount prices on your choice of components, District Sound, Inc., 2316 R.I. Ave. N.E., Wash., D.C. 20018. (202) 832-1900.

DIAMOND NEEDLES and Stereo Cartridges at Discount prices for Shure, Pickering, Stanton, Empire, Grado and ADC. Send for free catalog. All merchandise brand new and factory sealed. LYLE CARTRIDGES, Dept. S, Box 69, Kensington Station, Brooklyn, New York 11218.

AUDIO FURNITURE? Ask for Jerry Joseph of Toujay Designs at Hi-Fi Expo, 443 Park Avenue South, NYC 10016 Tues.-Fri. 11-5, Sat. 11-4. Full Line brochure 25 cents.

AR, KLH, ADVENT, DYNACO, RECTILINEAR, ADC OWNERS—Our low cost electronic equalizer adds full octave of new bass, provides three broad-band tone controls. Three reviews, literature, from NORMAN LABORATORIES, 520 Highland Parkway, Norman, Oklahoma 73069.

COMPONENT CABINETS. Direct from the factory at low factory prices. Finished-Unfinished-Kits...free brochure Audio Originals, 546 S. Meridan St., Indianapolis, Ind. 46225

QUAD, Radford, Bang & Olufsen audio components of suberb quality for connoisseur. Audio Imports, 5557 Versaille Dr., Indianapolis, Ind. 46227.

STEREO SPECTRUM, the money saver for hifi buyers, write us, Box 1818, Miami Beach, Florida 33139.

LISTEN TO TV THROUGH YOUR STEREO WITH



Works with any television and stereo just takes minutes to plug it in Then enjoy all TV programming, such as concerts and movies, with a fantastic high fidelity sound Complete and ready to use with instructions. Send only \$2,00 for C O D, or \$16,95 check, money order of Mastercharge No for PPD to

RHOADES & COMPANY, Dept. SR-73
P.O. BOX 817 • HENOERSONVILLE, TENNESSEE 37075

COMPONENT Discounts, Write for quotation, Shure M91E \$17.00, Audio Warehouse, Box 1507, Independence, MO

TAPE AND RECORDERS

SCOTCH RECORDING TAPE, lowest prices, TAPE CEN-TER, Box 4305, Washington, D.C. 20012.

OLD Time radio programs-all your old favorites, 50 cents for catalog. Robert Mussehl, R. 1, Brooklyn, Wisc. 53521.

RENT stereo tapes \$1.50 week postpaid-NEW catalog 25 cents. Tape Library, Box 8126, Washington, D.C. 20024.

RENT 4-track open reel tapes—all major labels—3,000 different-free brochure. Stereo-Parti, 55 St. James Drive, Santa Rosa, California 95401

LIVE OPERA PERFORMANCES on reel-to-reel tapes. Incredible performances dating back 40 years. From Ponselle-Callas, Catalog: Mr. Tape, Box 138, Murray Hill Station, N.Y.C. 10016.

OLD Radio Show Monthly Special Club—TBOR, Box 1692B, F.D.R. Station, New York 10022.

MEMOREX & BASF audio and video recording tape. BSC, Inc., P.O. Box 1181SR, Melrose Park, III, 60161.

THRIFTIEST "Live"---Operatic, Symphonic-Tapes & Cassettes, P.O. Box 1101, Woodhaven, New York 11421.

IMPORTS: 8 track, Cassettes, Classical and international, catalogue 50 cents refundable. Howards International, 61-25 96th Street, Rego Park, N.Y. 11374.

EVERYTHING ON OPEN REEL! Thousands of prerecorded classical/popular tapes. Latest releases Discounts, 96-page catalogue \$1. Barclay-Crocker, Room 333A, 11 Stone Street, NYC 10004.

SCOTCH TAPES. Discounts! Catalog 10 cents. Tower, Box 33098, District Heights, Md. 20028.

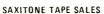
OPEN REEL STEREO TAPE BUYERS!

At last? An open reel catalog, including titles, songs etc. of 95 long play, 15-3 hour albums, by American Airlines. Continental Airlines, and Ampex 4 track stereo tapes (includes a group of "Sound effects" tapes by Audio Fidelity), Sent \$1,00° and we will also mail you a 140-page Harrison ster

eo tape catalog — so you'll get both for \$1.00 — and this \$1.00 is zetundable on your first \$10.00 purchase of open reel stereo tapes at our 30 — discount.

SCOTCH MAGNETIC TAPE (USED)

#150, 1800 ft. 7 inch reel. I init polyester, recorded once, bulk crased (no box), 99¢, plus 10° shipping and handling (manmum order \$10.00). Slightly used 10½ inch fiberglass reels, 3/8" hole, 50¢ each, plus shipping by weight and zone. (Minimum order \$10.00).



'olumbia Road, N.W. Washington, D.C. 2000

OPERA TAPES-Open Reel and Cassettes-Historical performances of past 40 years. Unbelievable treasures and ranties. Also LP records. Ed Rosen, Box 97, Freeport, N.Y.

OLD RADIO PROGRAMS. All your favorites. Lowest Prices, Prompt Service. Catalog 25 cents. Nostalgic Radio, Box 29-B, Peoria, III. 61601.

TDK, BASF, Memorex, Scotch cassettes, reels, 8-tracks. THE LOWEST PRICES, S&S Audio, Box 523-D, Skokie, Illinois 60076

1930-1962 RADIO PROGRAMS. Reels, \$1.00 hour! Cassettes, \$2.00 hour! Send \$1.00 for mammoth catalog...with hour samples, \$2.00. AM Treasures, Box 192J, Babylon, N.Y. 11702.

OPERA, Concert Collectors: Avoid inferior copies. Select excerpts from extensive catalog. Over 2,000 live performances, past 50 years. Current presentations from originals, all complete. Mail \$3.00 (deductible) for listing followed by 60 minute open reel tape samples you select Wurm, 18826 Louise Drive, Lansing III. 60438.

SPEAKERS, speaker kits, crossover kits. Catalog free Crossover design guide 25 cents. SPEAKERLAB, 5500X 35th NE, Seattle, WA 98105.

OPEN REEL TAPE, Cassettes, Video. BASF, Others Lowest prices. Acoustic Dynamics, Box 205-S, Hewlett, NY

SCOTCH new low noise tape 10-1/2" metal 3600", 5 for \$30.00. Reels, POB 88338, Dunwoody, GA 30338.

SCOTCH, CAPITOL. Stak-Paks, Reels, cartridges, cassettes. Lawson's, Box 510, Livermore, CA 94550.

FREE Opera Catalog. Opera Recorder, 862 E. 51st St., Brooklyn, New York 11203.

RECORDS

SHOW ALBUMS, Rare, Out-of-Print LP's, Laroe list, 16 cents. Broadway/Hollywood Recordings, Georgetown, Conn. 06829.

"HARD To Get" records—all speeds. Record Exchange, 842 Seventh Avenue, New York, N.Y. 10019.

PROTECT your records—Poly sleeves for jackets 6 cents; Inner sleeves 5 cents; Poly lined paper sleeves 12 cents; white jackets 27 cents. Postage \$1.00. Record House, Hillburn, N.Y. 10931.

THOUSANDS of like new LP's and prerecorded tapes. Catalogue \$1.00. Records, Hillburn, New York 10931.

COLLECTORS' Soundtracks, Mint. List 25 cents, Jemm's, P.O. Box 157, Glenview, III. 60025.

FILM-STAGE soundtracks. Extensive free list. Box 7342. Miami, Fla. 33155.

FREE 200-PAGE CATALOG, 1,400 New Stereo Recordings Renaissance, Baroque, Classical, Romantic, Modern Music. Not sold in stores. Not listed in Schwann's, Highest quality! Budget label prices! Available only by mail. MUSICAL HERITAGE SOCIETY, Box 932 ST, New York, N.Y. 10023.

NOSTALGIA CATALOG: Radio, Films, Theatre. 25 cents (refundable). Howards International, 61-25 98th Street, Rego Park, NY 11374.

RARE Soundtracks show albums. Show Music, Box 12, Wood River, Illinois 62095.

SOUNDTRACK RECORD ALBUMS-Mail Auction-Free List. Whalon, 2321D Hill, Redondo Beach, Calif. 90278.

RARE Recordings—Soundtracks, Shows, Personalities. Reasonable Prices, Large New Catalog, Free, Hiott, Box 471, Miami, Fla. 33144.

FREE Catalog-Film soundtracks, shows. Lowest prices! Roseman, Box 16083, Philadelphia, PA. 19114.

RARE RECORDS-All Speeds. List \$1.00, refundable first order. Don Caron, 2 Camp Drive, Selden, N.Y. 11784.

SOUNDTRACKS-Lowest Prices, Catalog: 25 cents. Write: BEV Box 715, Florissant MO 63033



Spectacular sound! Stereo testing! Background music and sound effects! Special Interest Records available exclusively from Ziff-Davis Send for your free Record Catalog -Ziff-Davis Publishing Co., Dept. 23, One Park Ave., New York, N.Y. 10016

TUBES

TV and Radio Tubes 36 cents. Free 48 page color catalog. Cornell, 4215-H University, San Diego, California 92105.

INSTRUCTION

LEARN Electronics Organ Servicing at home. All makes, including transistors. Experimental kit—trouble-shooting. Accredited NHSC, Free Booklet. Niles Bryant School, 3631 Stockton, Dept. A. Sacramento, Calif. 95820.

ASSOCIATE DEGREE IN ELECTRONICS through correspondence instruction, G.I. Bill approved. Free catalog. Grantham, 1509 N. Western, Hollywood, Calif. 90027

MUSICAL INSTRUMENTS

30% DISCOUNT name brand musical instruments. Free catalog. Freeport Music, 455Q, Route 110, Melville, N.Y.

WANTED

QUICKSILVER, Platinum, Silver, Gold, Ores Analyzed. Free Circular, Mercury Terminal, Norwood, Mass. 02062. WANTED Marantz 7, 8B, 9, McIntosh C22, MC275, QUAD 2

22. Box P, Kew Gardens, N.Y. 11415.

WANTED to buy: used unenclosed Bozaks and McIntosh equipment, Williams, P.O. Box 548, Lake City, S.C. 29560.

GOVERNMENT SURPLUS

JEEPS, TRUCKS, Cars From \$31.50...Airplanes, Typewriters, Clothing, Multimeters, Transceivers, Oscilloscopes, Photographic, Electronics Equipment...100,000 Surplus Bid Bargains Direct From Government Nationwide Typically Low as 2 cents on Dollar! Complete Sales Directory and Surplus Catalog \$1.00 (Deductible First \$10 Order From Included Catalog) U. S. Surplus Disposal, 2200 Fuller 601B-SRW, Ann Arbor, Michigan 48105.

HYPNOTISM

Free Hypnotism, Self-Hypnosis, Sleep Learning Catalog! Drawer H400, Ruidoso, New Mexico 88345.

SLEEP LEARNING, Hypnotic Method, 92% effective. Details free. ASR Foundation, Box 7566 EG, Fort Lauderdale, Florida 33304.

AMAZING self-hypnosis record releases fantastic mental power. Instant results! Free trial. Write: Forum (AA1), 333 North Michigan, Chicago 60601.

RUBBER STAMPS

RUBBER address stamps. Free catalog. 45 type styles. Jackson's. Box 443G. Franklin Park, III. 60131.

BOOKS

BEST buy in Hi-Fi Books! "Basic Audio Systems," \$4.95. Free Catalog, TAB BOOKS, Blue Ridge Summit, PA, 17214.

BUSINESS OPPORTUNITIES

I MADE \$40,000.00 Year by mailorder! Helped others make money! Start with \$15.00-Free Proof. Torrey, Box 318-N. Ypsilanti, Michigan 48197.

MAILORDER MILLIONAIRE helps beginners make \$500 weekly. Free report reveals secret plan! Executive (1K1), 333 North Michigan, Chicago 60601.

HI-FI ENTHUSIASTS WANTED!! Earn more than just spare money in your spare time. We need campus representatives to sell name brand stereo components at discount prices in your area. High commission, no investment required. Serious inquiries only, please. Contact: Mike Santillo, K&L Sound Services Co., 264 No Beacon St., Watertown, Mass. 02171. (617) 787-4073.

FREE Secret Book. "2042 Unique, Proven Enterprises. Fabulous, "Little Knowns. Carlsbad, California 92008. Work Home! Haylings-BH,

RESORTS & TRAVEL

BERTH AND PARTOWNERSHIP in 155 ft. 3-masted Barquentine for \$10,700. Join in Europe, assist conversion then help sail on 2-year Adventure & Business World Voyage, Write R. Bruderer, IYC, Box 149 BROADWAY, NSW Australia 2007

EMPLOYMENT OPPORTUNITIES

HI-FI Salesman: Large wholesaler needs college representatives to sell audio equipment to students during spare time. Opportunity to earn good money. Write: Stereo, 2122 Utica Avenue, Brooklyn, New York 11234.

MOVIE FILMS

dates, etc

16mm SOUND Features, Shorts, New, Used for Sale. Free Catalog, National Cinema, 333 W. 57th St., N.Y., N.Y. 10019

EDUCATIONAL OPPORTUNITIES

LEARN WHILE ASLEEP. Hypnotize! Strange catalog free Autosuggestion, Box 24-ZD, Olympia, Washington 98501.

EMPLOYMENT INFORMATION

EXCITING Overseas Jobs. Directory \$1.00. Research Associates, Box 889-E, Belmont, California 94002.

PERSONALS

MAKE FRIENDS WORLDWIDE through international correspondence. Illustrated brochure tree, Hermes, Berlin 11. Germany

FOR SALE

15 YEARS Hi-Fi Magazines, Write for list Davis, Rt. 1, Box 366, Solsberry, Indiana 47459

OLD RADIO SHOWS for sale, Superior sound, List 25 cents, Terry Yakish, 1800 Watrous, Apt. 3B, Des Moines, lowa 50315

MISCELLANEOUS

WINEMAKERS. Free illustrated catalog of yeasts, equipment. Semplex, Box 12276Q, Minneapolis, Minn. 55412 OLD RADIO PROGRAMS ON CASSETTES OR REELS. Thousands of your favorites live again. Low prices, high quality. Catalog 50 cents. Remember Radio, Box 2513-I, Norman, Oklahoma 73069.



With the world of tape in fast-for ward. How can you keep up? Here's the magazine that unsnarls the facts. Compare products feature by feature, cost by cost - Reel-to-Reel . Cassette Tape • 8 Track • 4 Channel • Amplifiers . Receivers . Decoders . Headphones . Microphones . Raw Tape and more.

1973 Summer — #13
Order by number from
Ziff-Davis Service Division,
595 Broadway, N. Y., N.Y. 10012.
Enclose an additional 35c per ccpy,
for postage and handling. Outside
USA all magazines are \$2.50 per
S AVAILABLE: copy, postpaid.

BACK ISSUES AVAILABLE: 1973 Winter—#78 1972 Winter—#56 1972 Spring #51 \$1.50 each. 1971 -# 19 PAYMENT MUST BE ENCLOSED WITH ORDER

CLASSIFIED ADVIRTISING ORDER FORM Please refer to heading on first page of this section for complete data concerning terms, frequency discounts, closing 9 10

6 11 12 13 14 15 16 17 18 19 20 21 24 25 26 27 28 30 29 34 35

@\$1.00 (Reader Rate) _ Words @\$1.60 (Commercial Rate)

71P

Insert Total Enclosed NAME ADDRESS STATE _

Signature

WORD COUNT: Include name and address. Name of city (Des Moines) or of state (New York) counts as one word each. Zip Code numbers not counted. (Publisher reserves right to omit Zip Code if space does not permit.) Count each abbreviation, initial, single figure or group of figures or letters as a word. Symbols such as 35mm, COD, PO, AC, etc., count as one word. Hyphenated vior count as two words

STATEMENT OF OWNERSHIP, MANAGE-MENT AND CIRCULATION, (ACT OF AUGUST 12, 1970; SECTION 3685. TITLE 39, UNITED STATES CODE.)

1. Title of Publication: Stereo Review. 2. Date of Filing: October 1, 1973. 3. Frequency of Issue: Monthly. 4. Location of known office of publication: One Park Avenue, New York, New York 10016. 5. Location of the headquarters or general business offices of the publishers: One Park Avenue. New York. New York 10016.

6. Names and addresses of publisher, editor, and managing editor: Publisher: Edgar W. Hopper, One Park Avenue, New York, New York 10016. Editor: William Anderson, One Park Avenue, New York, New York 10016. Uwner: Ziff-Davis Publishing Company. One Park Avenue. New York 10016.

1. William Ziff, One Park Avenue, New York 10016. 2. Dirk S. Brady, Charles Housman, Jules 1. Whitman, Trustees 1/B/O Dirk Ziff et al. 16 Ervilla Drive, Larchmont, New York 10538.

2. Known bondholders, mortgagees, and other cecurity holders owning or holding 1, percent of the park of the present of the present of the present of the park of the present of the present of the park of the present of the park of th

8. Known bondholders, mortgagees, and other security holders owning or holding 1 percent or more of total amount of bonds, mortgages or other securities: None.

9. For optional completion by publishers mail-

other securities: None.

9. For optional completion by publishers mailing at the regular rates (Section 132.121, Postal Service Manual) 39 U.S.C. 3626 provides in pertinent part: "No person who would have been entitled to mail matter under former section 4359 of this title shall mail such matter at the rates provided under this subsection unless he files annually with the Postal Service a written request for permission to mail matter at such rates."

In accordance with the provisions of this statute, 1 hereby request permission to mail the publication named in Item 1 at the reduced postage rates presently authorized by 39 U.S.C. 3626.

WILLIAM L. PHILLIPS, Assistant Treasurer 11. Extent and nature of circulation:

Average

No. of Copies ach
Copies Cach
Issue Single Issue
During Published

Copies of Single Issue Published During Preceding 12 months Nearest to Filing Date A. Total No. copies printed 379,965 (Net Press Run) 388,634 Paid circulation
1. Sales through dealers and carriers, street vendors and counter sales 2. Mail subscriptions C. Total paid circulation D. Free distribution by 47,802 281,430 329,232 290,651 336,901 mail, carrier or other means
1. Samples, complimentary, and other free copies Copies distributed to news agents, 7,336 6,563 but not sold
Total distribution
(Sum of C and D)
Office use, left-over, 40 585 42,800 377,153 386,264 unaccounted, spoiled after printing
Total (Sum of E & F 2,370 should equal net press run shown in A) 379,965 388,634 I certify that the statements made by me above

WILLIAM L. PHILLIPS, Assistant Treasurer

are correct and complete.



CITY _



TAPE THINGS TO COME

The annual New York convention of the Audio Engineering Society is a professionals-only affair at which few manufacturers of home audio components even exhibit their wares. Nevertheless, it is there, among the professional equipment, that one can sometimes glimpse the shape of things to come for the home recordist. After all, such features as three-motor decks, separate record and playback heads, and pushbutton (solenoid) controls were all originally found only in professional equipment.

This year's show was all the more valuable in that the producers went out of their way to provide a historical perspective. You could hear Edison's wax cylinders, compare old acoustical and early electrical recordings, and see on display a museum of "antique" tape machines. There was the first German Magnetophon brought to this country and modified by 3M's John Mullin, just after World War II. Among the other tape memorabilia on display were a Brush Soundmirror (one afternoon, years ago, my father put himself to sleep listening to one of his own sermons on it), the Magnecord PT-6 (twenty-five years later some are still in use), and the old Viking 75-my own first tape deck. Audio and tape — past, present, and future were vividly brought together in an evening program titled "Look What They've Done to My Song, Ma!" that took us aurally and visually from the very beginnings of acoustical sound recording to a demonstration of sixteen-channel techniques.

But where do we go from here? It is evident that cassettes and cartridges are taking over the low- and middle-cost tape-recorder market. The sheer number of new high-speed duplicators on display at the show is evidence of the growing interest in these formats. What this means in turn, however, is that the openreel machines will tend increasingly to become super-sophisticated models designed particularly to attract the home recordist by offering (and charging for)

more of the features that have heretofore been exclusively "professional."

Consider, for example, the ubiquitous VU meter used as a record-level indicator. Its predecessor was a flashing neon bulb or "magic eye" tube that, while difficult to interpret, responded to the peak levels of the signal being recorded. A genuine VU meter does a better job of indicating average signal levels, making it easier to set the record controls. In most audiophile recorders, however, even if there is a VU scale, the meter needle does not respond to rapidly changing signals according to VU specifications. In the next generation of high-end recorders you may find both a genuine VU indicator and a flashing "light-emitting diode" (LED) to register instantaneous peak overloads.

Developments in computer technology now make it possible to control tape motion more safely. If you go too fast from rewind into play on most home recorders, at best you may get some tape bounce; at worst, you may break the tape. Tomorrow's machines, however, will use "logic circuits" to make the deck come to a full stop first, then "remember" to execute your "play" command. Variable-speed capstan motors will permit you to adjust a prerecorded tape to the pitch of an instrument, or perhaps to synchronize a tape with movies. And, following the professional trend, recorders are now coming out that use electronic servocontrols to maintain absolutely constant tension on the tape-in both regular and high-speed modes - despite changes in reel diameter.

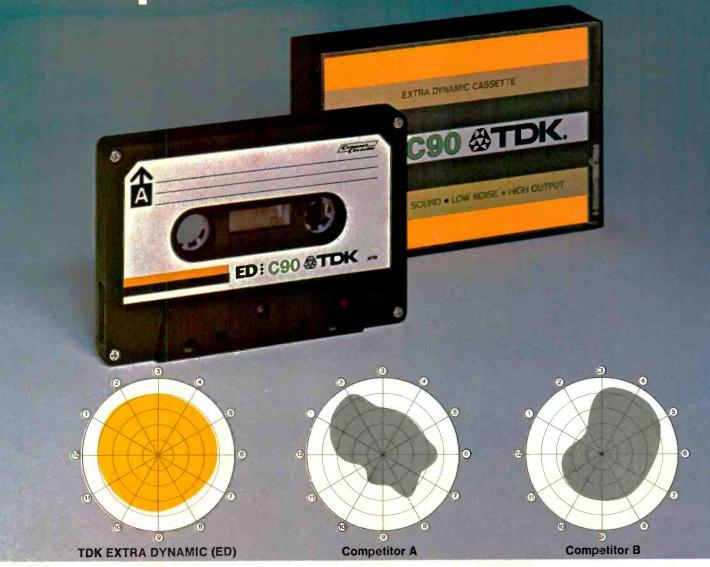
Front-panel bias controls (to meet the needs of new tapes), replaceable head blocks (so you can switch quickly from quarter-track to half-track stereo), improved mixing and editing facilities—all these and more are present realities in the studio machines and are probably destined for us at home. Perhaps the competition of cassettes was needed to put the future of open-reel in its proper perspective.

STEREO REVIEW JANUARY 1974 ADVERTISERS' INDEX

ADVERTISERS INDEX		
	IDER ICE NO. ADVERTISER	PAGE NUMBER
1	A.D.R. Audio	113
2	Acoustic Research, Inc.	
3	AKAI America, Ltd.	
5	Audio Amateur	
	Audio Dynamics Corporation	
4	Audio Technica, U.S., Inc.	
6 7	Audio Warehouse	
8	BSR(USA)Ltd Baltimore Stereo Wholesalers	
10	Bose	
103	British Industries-Garrard	
11	Carston Studios	
12	Columbia Magnetics	116
	Dixie HiFi Wholesalers	26
50	Dual	34, 35
13	ESS Inc	28, 29
9	Elac Division, Benjamin Electronics	Corp. 13
14	Electro-Voice, Inc.	
21	Empire Scientific Corporation	
15	Epicure Products, Inc.	
17	Finney Company	
18	Fisher Radio Company Harman-Kardon, Inc	
16	Heath Company	
19	Illinois Audio	
55	Impro Industries, Inc.	49
24	International HiFi Distributors	
	JVC America, Inc.	
25	Jensen Sound Laboratories, Inc.	
20	KLH Research & Development	
22	Kenwood Electronics, Inc.	
23	Koss Corporation	4th Cover
26 27	Lafayette Radio Electronics McIntosh Laboratory	
43	Marantz Co., Inc.	
28	Maxell Corporation	
30	Midwest HiFi Wholesalers	
31	Minolta	17
29	National Union Electric	37
33	Nova Audio	95
34	Olson Electronics	
32	Onkyo	39
35 41	Phase Linear Pickering & Company	12 11
29		
29	Pilot Polygram International	
37	Rabco	
39	Rabsons	
36	Radio Shack	57
40	Rectilinear Corporation	
38	Revox Corporation	
44	Rogersound Labs	
45	Rotel of America	
42 100	Sansui Electronics Corp.	
46	Scott Inc., H. H Shure Brothers, Inc	
47	Sony Corporation of America	
63	Sony Superscope 124	
48	Sound Reproduction, Inc.	
49	Stereo Corporation of America	
51	TDK Electronics Corp.	
53	Technics by Panasonic	7
54	Texaco	
	U.S. Pioneer Electronics Corp. 2	
50	United Audio Products, Inc.	
52	Yamaha	
	CLASSIFIED ADVERTISING	120, 121

PRINTED IN U.S.A.

TDK's ED has more of what audiophiles want...



If you're an audiophile, you know what you want — the best cassette there is. That's why you'll insist on TDK's new top-of-the-line EXTRA DYNAMIC (ED). Once you discover ED's superior total performance, you won't settle for anything less than the cassette with more of everything.

Judged on TDK's Circle of Tape Performance for each of the twelve most important tape characteristics as shown in the diagrams above, EXTRA DYNAMIC offers you an entirely new dimension in cassette recording fidelity. Its performance characteristics, represented by

the larger, more circular pattern, approach those of the ideal tape. They are better balanced and superior to those of any other cassette on the market, including the two competitive so-called "hi-fi" cassettes also shown above.

ED's superior total performance results from use of TDK's unique new "Stagnetite" (stabilized magnetite) coating plus a special binder and other exclusive manufacturing techniques. ED cassettes also have the industry's highest MOL (maximum output level), broader dynamic range, extended frequency

tape performance characteristics

1-MOL @ 333Hz 2-Sensitivity @ 333Hz 3-Sensitivity @ 8kHz 4-Sensitivity @ 12.5kHz

5-MOL @ 8kHz

6-Erasability

7-Bias Noise
8-Print-Through
9-Modulation Noise
z 10-Output Uniformity
11-Uniform Sensitivity
12-Bias Range

response and a higher signal-to-noise ratio. The result is incomparably fresh, rich, full-bodied sound on any recorder,

without-need for special bias.

Ask your dealer today for TDK's new EXTRA DYNAMIC cassettes. For sound you feel as well as hear . . . discover the dynamic new world of TDK.

the new dynamic world of



TOK ELECTRONICS CORP.
755 Eastgate Boulevard, Garden City, New York 11530



TDK's EXTRA DYNAMIC (ED), SUPER DYNAMIC (SD) and DYNAMIC (D) cassettes are available in 45, 60, 90, 120 (SD & D) and even 180-minute (D only) lengths, TDK KROM (KR) chromium-dioxide cassettes are available in 60 and 90-minute lengths. At quality sound shops and other tine stores.

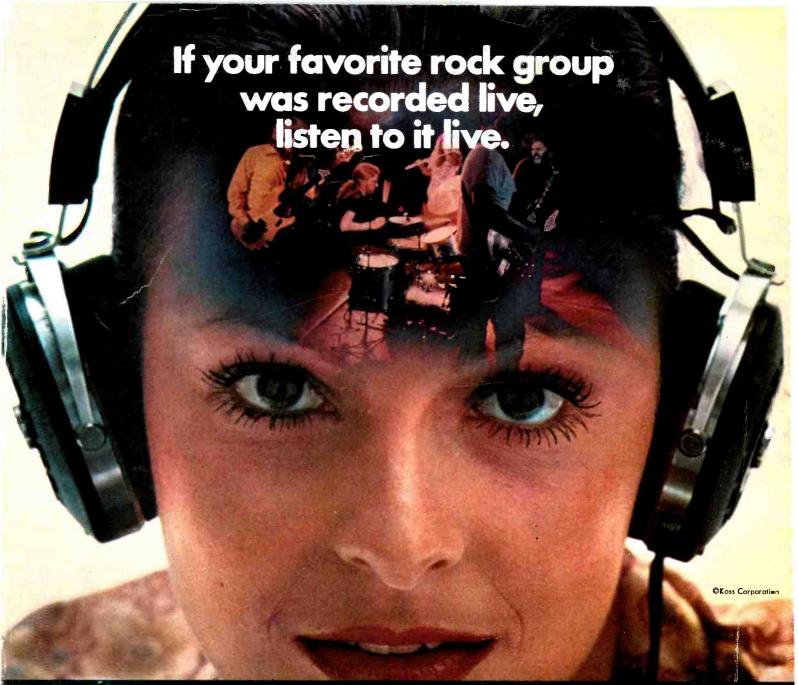
first came the word...



And then there was music. And then came Sony tape recorders to capture the words and music with perfect fidelity. Right from the start, Sony has always been first with the best, the newest and the broadest selection of tape recording equipment in the world. Sony tape recorders, Sony accessories, Sony microphones, Sony recording tape. We could go on and on and on. We are.

SONY Ask anyone.

Brought to you by SUPERSOFT.



Nothing can raise the hair on the back of your neck like a live rock concert. And nathing comes as close to matching the vibrant excitement of live rock like a pair of Koss HV-1 High Velocity Stereophones. Because the new Koss HV-1 isr't just another lightweight, h∋ar-thru Stereophone. It's a revolutionary new design concept that vents the back sound waves thru the rear of the cup without raising the resonance or inhibiting

transient response. So you not only hear every sound as it was played and every word as it was sung, but you can also hear the telephone ring or your wife ask you a

question

But it's the HV-1's unique engineering that makes it a Stereophone

you have to hear to believe. By developing a unique ceramic magnet and by

reducing the mass of the moving diaphragm assemblies, Koss engineers were able to achieve an unusual fidelity and extremely wide-range frequency response unmatched by any other lightweight Stereophone. All the delicate overtones which add to the faithfulness of the reproduction are retained. And the low-range frequency response is extended, clean and unmuddied.

All in all, the HV-1 is a lightweight Stereophone no rock lover will ever take lightly. Ask your Audio Specialist for a live demonstration. And write for our free full-color catalog, c/o Virginia Lamm. At \$39.95, the price of the HV-1 is light, too.

Koss HV-1 Stereophone



⊕ K□SS stereophones

from the people who invented Stereophones.

Koss Corporation, 4129 N. Port Washington Ave., Milwaukee, Wisconsin 53212 Koss S.r.l., Via dei Valtorta, 21 20127, Milan, Italy.

CIRCLE NO. 23 ON READER SERVICE CARD